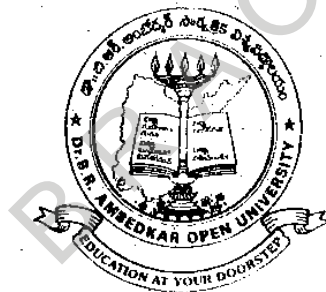


LIBRARY CLASSIFICATION PRACTICE

Block-I Dewey Decimal Classification



Dr. B.R.Ambedkar Open University
HYDERABAD
2003

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Course - 7 : LIBRARY CLASSIFICATION PRACTICE

This course deals with the topics in Library Classification Practice included in the syllabus for the Bachelor of Library and Information Science (BLISc) offered by the Dr. B.R. Ambedkar Open University. These topics cover the 'core' area of the subject to be studied. The syllabus for the sake of convenience has been divided into blocks and units. These are two blocks in this course, namely, Block-I : Dewey Decimal Classification and Block-II : Colon Classification.

The present block (Dewey Decimal Classification) contains seven units. The units are prepared in accordance with the house-style/format designed by the Dr. B.R. Ambedkar Open University. This format facilitates you read and understand the content without much difficulty. Each unit begins with a list of contents, followed by a statement of aims and objectives, and introduction to the text. The content has been divided into number of sections and sub-sections to facilitate easy understanding and retention. Self check exercises are provided to test the learners' comprehension at various places in the text.

Majority of libraries in India follow the two schemes of classification (DDC and CC), though there is a fairly good percentage of special libraries which follow Universal Decimal Classification. Teaching Classification practice through printed media pose certain limitations and hence to overcome them, the units have been made not only as simple as possible but also a good number of examples has been provided. Any area which you are unable to understand you can consult the counsellors at the study centres who will provide you necessary guidance.

BRAOU

BLOCK-I: DEWEY DECIMAL CLASSIFICATION

Dewey Decimal Classification (DDC) is the most popular classification scheme adopted throughout the world. Indian libraries are not exception. Many public, college and university libraries in India have adopted this scheme.

This block introduces you the method of classifying and arranging documents by DDC. The 19th edition published in 1979 has been prescribed in your syllabus. You have to study the scheme, so as to acquaint yourself with various provisions and able to interpret and apply them while classifying the documents practically.

There are seven units in this block. The first Unit introduces you to the structure and organisation of the Scheme (DDC). Ascertaining specific subject of a document and assigning class number to it have been dealt in Unit-2. Unit-3 deals with class number building practices. Units-4, 5, 6 and 7 explain you the use of Table-1, Table-2, Table - 3 and Tables 4-7 respectively. The aspects, Multiple synthesis and order of precedence, have been introduced in the last unit. You are advised to study the units with the aid of the books Dewey Decimal Classification (3 volume set). It is very difficult to follow the units without the use of classification schedules.

BRAOU

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BRAOU

UNIT-1 : INTRODUCTION TO DEWEY DECIMAL CLASSIFICATION (DDC 19)

Contents

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1.0 AIMS AND OBJECTIVES

The Unit aims to introduce you the Dewey Decimal Classification (19th edition), its structure, principles, features, etc.

After studying this unit, you should be able to

- describe the salient features of the Scheme;
- explain the basic structure of the Scheme;
- discuss the qualities of decimal fraction notation employed in the Scheme; and
- explain the use of three different volumes.

1.1 INTRODUCTION

Library classification is a branch of knowledge concerned with the arrangement of documents (books or periodicals or in any form of records of human thought) in a helpful order. 'It is the art of assigning documents to their proper places in a system of classification in which various subjects are grouped according to their likeness or relation to one another'.

Library Classification aims at arranging documents on the shelves in the most helpful order. The sequence should not get disturbed when new books are added to the library or when they are replaced after they are taken out for use.

1.2 LIBRARY CLASSIFICATION SYSTEMS

Mainly there are two kinds of classification systems, namely, enumerative systems and synthetic systems. Enumerative classification system name subjects and list them in some helpful order. Dewey's *Decimal Classification* is of this kind. Synthetic classification systems, on the other hand first analyse the subject into its isolates or concepts and then synthesize them according to certain principles, laws, canons, etc., as laid down in that particular scheme. Dr. S.R. Ranganathan's *Colon Classification* is an example of Synthetic Classification.

1.3 THE DEWEY DECIMAL CLASSIFICATION

The system derived its name from its author's name Melvil Dewey and the decimal fraction principle on which it is based. Melvil Dewey was a librarian in the Amherst College in New York in the United State of America. The first edition of DDC was brought out in 1876 and its 15th edition in 1951. All these editions were published in single volumes of varying sizes. The 16th and the 17th editions were published respectively in 1958 and 1965 in two volumes each. Though the previous editions of DDC are purely enumerative in character, beginning with its 18th edition which was issued in 1971 in three volumes, is based on some synthetic principles to a limited extent. The 19th edition published in 1979 is also in three volumes, whereas the 20th edition published in 1989 is in four volumes.

1.3.1 THE 19TH EDITION

The three volumes of the 19th edition of Dewey Decimal Classification are as follows:

Volume 1	Introduction, Tables
Volume 2	Schedules
Volume 3	Relative Index

(The DDC 19th edition is prescribed in your syllabus for practice).

The **First Volume** contains foreword, preface, introduction, glossary, seven auxiliary tables, relocations and reductions, list of changed numbers and the three summaries of the schedules. The introduction describes the special features and the structure of the system. It also provides full instructions as to how to use the system and guidance to determine the specific subject of a document.

The **Second Volume** contains the schedules of class numbers arranged in a single Indo-Arabic numerical sequence from 000-999. These numbers represent notations for all main classes and all their subdivisions in the hierarchical order. Each entry contains a class number on the left and on its right the name of its object or topic is given. The subordinate and coordinate relations are shown by the length of the class number on the left and the corresponding change of indentation of the subject headings on the right side. Many of these headings contain a variety of notes, explanations, instructions which are very essential in building a correct class number.

The **Third Volume** contains exclusively the Relative Index. It arranges the concepts and their terms contained in the Tables (Volume-1) and Schedules (Volume-2) in an alphabetical sequence. It also contains brief instructions and a key to the abbreviations used in the index. The index is called **Relative Index** because it brings together all aspects of a single subject which have otherwise been scattered by discipline in the Schedules. The schedules and the index are, therefore, complementary to each other. The index is of a great help to the classifiers to approach the schedules through it. The use of the index is described in great deal in Unit 2 in this course material.

Self-Check Exercise - 1

Name the three volumes of DDC.

Note: i) Write your answer in the space given below.

ii) Compare your answer with the model answer given at the end of this unit.

.....

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.....

.....

1.3.2 FEATURES OF DDC 19TH EDITION

DDC treats entire knowledge as unity and divides it into ten mutually exclusive main classes denoted by decimal numbers as follows:

- 0 Generalities
- 1 Philosophy and related disciplines
- 2 Religion
- 3 Social Sciences
- 4 Languages
- 5 Pure sciences
- 6 Applied sciences or Technology
- 7 The Arts
- 8 Literature (Belles-lettres)
- 9 General geography and history

DDC prescribed a minimum of three digits in a class number to denote a class.

- 000 Generalities
- 100 Philosophy and related disciplines
- 200 Religion
- 300 Social sciences
- 400 Languages
- 500 Pure sciences
- 600 Applied sciences or Technology
- 700 The Art
- 800 Literature (Belles-lettres)
- 900 General geography and history

The DDC has many features which lend themselves readily to make synthesis possible, that is, construction of class numbers to the degree of desired specificity. These features include the use of Indo-Arabic notation, the seven auxiliary tables, the provision of the Index, the Centered entries, the Tables of precedence, the Period divisions, and the different kinds of Notes such as Definition notes, Scope notes and Inclusion notes. Add device, Citation order, etc., are given here and there in the schedules and also in the Tables. Each of these may be described as follows:

1. **The Three Summaries :** The three summaries given in Volume 1 are the three outlines of the class numbers of the Schedules contained in Volume 2. The three Summaries are given in the order of their increasing specificity. The DDC treats the entire knowledge as unity and divides it in ten mutually exclusive Main Classes. This is called **First Summary**. It is the broadest of the first outline of the division of the entire Universe of knowledge according to this system.

The ten main classes are further divided into ten divisions (10x10) which come to 100 divisions in all. This is called the **Second Summary**. In the same way every division in the Second Summary is again sub-divided into further ten subdivisions or sections each (100x10) and are given as thousand sections in the **Third Summary**.

These summaries help to understand at a glance, the structure and scope of various subjects as laid down in the schedules. They have a great reference value and save much of the time of the classifier to locating the desired class number. (For the sake of convenience these three summaries are given separately at the end of this unit).

Thus the acquaintance of all the above features help the classifier to construct the class numbers very easily.

2. **The Notation :** The DDC system uses a pure notation of Indo-Arabic numbers 0 to 9 treated decimally to cover the entire human knowledge. A notation is a system of signs or symbols which stand

for names of class or any division or subdivision of a class. It is the basis of practical classification of documents in libraries.

DDC uses decimal fraction notation for the process of division of the universe of knowledge in tens until the required degree of specificity. In this method every class number is regarded as a pure decimal fraction but not as an integer. Since all these numbers are decimal numbers a decimal point is assumed to be present before every digit in the DDC class number as 0.1, 0.2, 0.3 and so on. But for convenience the initial zero and the decimal point are ignored in actual practice. The dot (.) which is placed after the first three digits of a class number, say, for example 341.23, is intended only to facilitate easy reading and recording but it should not be taken as a decimal point.

3. **Hierarchy** : Dewey's Decimal classification is a hierarchical classification. Hierarchy means the sequence of subjects in their successive subordination. It proceeds from the general to the specific. At each level of division there is an array of concepts called 'classes'. A class number may be a main class or a subdivision of any degree, be it 300 or 330 or 338.669. The classes are mutually exclusive and they stand in a coordinate relationship to each other. With each further level of division the specificity of the subdivision of the subject increases, that is, the classes get progressively more specific, more minute and stand in a subordinate relationship to a class at the immediate higher level. Thus a given class can be coordinate with one or more other classes at the same level and it is subordinate to only one class at the immediate higher level; and it may be subordinate to one or more classes at the immediate lower level. For example:

020	Library and Information Sciences
025	Library Operations
025.4	Subject analysis and control
025.42	Classification
025.43	General Classification systems
025.431	Dewey Decimal Classification
025.432	Universal Decimal Classification
025.433	Library of Congress Classification
025.434	Bliss's Bibliographic Classification
025.435	Ranganathan's Colon Classification
025.47	Subject cataloguing
025.48	Subject indexing

4. **The Dot and the Spaces** : If a class number has more than three basic digits a dot (.) is to be inserted between the third and the fourth digit. For example 494.827. This dot is only a pause and must not be taken to be a decimal point. It has no purpose except to psychologically break the monotony of numerals and for easy transcription, copying and remembering the class number for a short while. Psychologically the class number, for example, 324.12 is more easily remembered than 32412. Hence the dot helps to reinforce memory.

Again, for the same purpose, if a class number extends beyond six digits a space is left between the sixth and the seventh digit, and again between the ninth and the tenth digit. On this pattern, a space is left after every three digits coming after the dot. For example, the class number for "Bose-Einstein Statistics" is rendered as 530.133 2 and not as 530.1332. Similarly, the class number for Solid state masers is transcribed as 621.281 336 1.

These spaces and dot thus give relief to the eyes and facilitate shortwhile retention of the class number in the memory during the passage from the catalogue to the stacks.

5. **Numbers enclosed within square brackets**: In the schedules some class numbers at various levels are enclosed in square brackets [] which are either Never Assigned numbers or Unassigned numbers or Left vacant numbers or Optional numbers. The class numbers thus bracketed are no more in use and they should not be used. They always contain "class elsewhere" note or 'formerly note' immediately below them. These notes serve two purposes: firstly it clearly indicates the changes

between the new edition and the previous one; secondly it makes clear to those who used the previous edition that there is no mistake or omission in printing but the number has been surely reallocated. However, use of some numbers, particularly in 'Biography class' is optional.

Examples under each kind of numbers enclosed in square brackets:

- [004] [Never assigned]
- [005] [Never assigned]
(These gaps are helpful to accommodate new subjects)
- [006] [Unassigned]
Most recently used in Edition 16
- [164] [Unassigned]
Most recently used in Edition 17
- [175.83] Reading Comics
Number discontinued; class in 175.5
- [268.068] Management
Do not use; class in 268.1.
- [925] (Biographies of) Scientists.
Use is optional; prefer treatment described under 920.1 - 928.9.
(This instruction means that the biographies of scientists may either be placed at 925 and its subdivisions or in 500 using the standard subdivisions 092 given in Table 1. But in either of the case consistency is to be followed).
- 848 French miscellaneous writings
[848.99] French-language literatures not requiring local emphasis.
(It is optional to class here literatures of specific countries, e.g., libraries emphasizing Canadian literature may class here literature of all countries, especially description, critical appraisal, biography, works of individual authors. Other options are described under 800).

6. **Centered entry** : A Centered entry is an entry representing concepts for which there is no specific number in hierarchy of notation. It covers a group of numbers, that is, several subdivisions or aspects. It rationalises a general principle to use a more general number for a wide range of subordinate topics of which there is no single class number. For example, under 380 'Trade' is covered in 381-382; 'Communication' in 383-384; 'Transportation' in 385-386. There is no digit available to express any of these major subdivisions of 380 and each is shown in the Schedules by a 'Centered entry'.

The Centered entries are indicated with the characteristic black stylized arrow (>) in the left margin in many places in the Schedules and in the Tables and sometimes with an instruction to use a particular number instead of the range of notation as : "Class comprehensive works in ..."

For instance under the centered entry '250-280 Christian Church', the instruction says: "Class comprehensive works in 260".

If a document covers only one or two of the subdivisions contained in the Centered entry, then the class number given first is to be used. But if it covers three or more aspects then the next higher single number is to be used. For example, under the centered entry 616.91-616.96, a book on 'Communicable diseases' gets the class number 616.9. But a book on 'Eruptive diseases' takes the number 616.91.

7. **'Add' device with instructions or notes** : Under many class numbers instructions or notes are given to use 'Add device'. Add device economises the printed Schedules, besides acting as synthetic apparatus for number building. It is to be used only when there is an instruction to do so. Usually the 'base number' of the class concerned is designated with an instruction to "add" numbers taken from other class numbers existing elsewhere in the Schedules or the auxiliary seven tables given in volume 1 or in combination of numbers taken from both the Classes and the Tables. (This will be discussed in detail in Unit 3).

8. **Provision of different kinds of notes, etc. :** Definitions, scope notes (explanatory notes), example notes, inclusion notes (Notes beginning with "Including"), instruction notes (that is, 'class here notes'), synonyms and explanations in brackets or in small type, etc., are given under certain notations in the schedules and tables. These are intended to be followed carefully by the classifier as they help in interpretation of the subject. Each of these notes are explained hereunder.

i) **Definition notes :** These notes give the definition of the subject of the class number. For example, the class number 330 Economics contains a note: "The Science of human behavior . . . ". Some definition notes are explained through examples: under 343.074 2 specific kinds of (economic) assistance the note reads as: "Examples: loans, price supports, subsidies, mortgage insurance". The purpose of this kind of notes is to reveal the extraneous subtopics of a subject and to demarcate its boundaries.

ii) **The Scope notes:** These notes define the scope and jurisdiction of the class number. For example, the class number 379.11 contains a note 'Costs, expenditure, allocation and management of funds, budgets, budgeting, financial reports'.

iii) **Inclusion notes :** Some subtopics are not necessarily the part of a given number, but are accommodated, may be temporarily, with the broader number. For example, under 351.778 Government control of product hazards . . . includes also "Textiles, toys, household appliances". It means that the topics such as Textiles, toys are not essentially a part of the Government Control of product hazards and yet these do not have a separate number of their own. Hence such subjects have been given a standing room till they get their own numbers. No standard subdivisions are to be added to such class numbers.

iv) **Class here notes :** Sometimes some subtopics are enumerated under a class number with the instruction "Class here . . . ". Such topics are in fact broader than the class number. Only for some convenience they are to be placed there. For example, under 343.98 Regulation of trade (Law), the instruction reads as : "Class here commodity exchanges and exchange transactions".

v) **Class elsewhere notes:** When a topic apparently forming a part of a broader class and is given an independent class number, the broader class number contains a note in the form: "Class . . . in . . . ". For Example, 181.12 Philosophy in 181.12 Philosophy of Japan contains a note "Class Shinto Philosophy in 181.09561".

Similarly, under 778.3 special kinds of photography: "Class a specific application with the subject, eg., use of photography in astronomy 522.63". Such a note may also be given for related topics having independent class numbers. For example, under 181.4 India (Philosophy of) the note reads there as: Class Philosophy of Pakistan and Bangladesh in 181.95".

vi) **"Formerly" notes:** In a new edition, as a result of relocation, a subject gets a new number and its previous number is also given at the new place. The former class number is enclosed within square brackets with a prefix "Formerly". For example, 002 The book (formerly 001.552). It means that in the previous edition the class number for "the book" was 001.552 and now it is 002. The purpose is to mark the changes taken place between two successive editions.

9. **The Alphabetical mnemonics:** The system used Alphabetical innemonics where there is a need to accommodate a large number of coordinate classes having acceptable names and where the full class numbers are very lengthy. It uses the first or the first two or the first three initial letters of proper names, trade names and certain technical nomenclature for building up the class numbers. The 'mnemonic' representing the symbol of notation serves as an aid to memory.

Examples :

- 324.241L2 Labour party of United Kingdom.
- 4AO Arabic language (Base number is 4A)
- 8AO Literature of Arabic language (Base number is 8A)
- C810 Literature of Canada.
- NZ822.2 English Drama by New Zealand Authors of 20th century).

10. **Period (or) Time Divisions:** 'Time' is a duration of period. Generally it occurs in two levels: Chronological time and Feature time. Year, month, day, hour etc. are known as 'Chronological time' while the different seasons like winter, summer, or day time, early morning, late evening, night, etc. are known as 'Featured time'.

In many subjects the element of 'time' may appear. For instance, in the titles: (1) *India at the time of Moghuls*, (2) *Economic conditions in India in the 19th Century* and (3) *Summer in Simla* the element of time is present. While classifying these titles the element of time is to be represented in the class number.

The period divisions are provided in the Table 1 (Standard subdivisions) and at several places in the Schedules. Literary periods differ from those in political history. These periods are given in the class 800 Literature.

11. **Table of Precedence:** The 'Tables of precedence' are provided in certain classes in the Schedules and at certain places in the Tables. They state the correct citation order under a subject, that is, the arranging of priorities to the characteristics of any subject. The order of precedence is worked out so that a compound subject can be classified at the most useful place by selecting the most significant aspects.

For instance, the title: *Male Infant Twins* can be placed variously at:

155.422 Infants

155.432 Boys

155.444 Twins

But according to the Table of precedence given under 155.42 - 155.45 the number to be used is 155.444.

12. **Citation order :** The system provides for citation order. It is the sequence in which different characteristics present in a subject are arranged. In many of the classes in the schedules the arrangement of the characteristics is clearly stated. e.g., *Weaving cotton textiles*. 677 Textiles, 677.21 cotton (textiles) (Material); 677.21242 weaving (cotton textiles) (Process).

In the absence of any particular principle, the general citation order is : (1) class by things, (2) kinds of things, (3) part of things, (4) materials from which the things, kinds or parts are made, (5) properties of the things, kinds, parts or materials, (6) processes within the things, kinds, parts or materials, (7) operations upon the things, kinds, parts or materials, (8) agents performing such operations. For example, class *Harvesting of club wheat* in 633.117 (varieties of wheat including club wheat), but not in 633.115 (Harvesting of wheat).

13. **List of Relocations and schedule reductions, and changed numbers:** Volume I contains a list of relocations and reused numbers given in the classified sequence. The provision of these numbers is indispensable in reclassifying documents with the new edition.

14. **Auxiliary tables :** The auxiliary tables consist of notation representing subordinate concepts such as form, time, place language, point of view etc. These concepts may be commonly applied to many classes contained in the schedule.

In the 19th edition of DDC these concepts are provided in the form of seven tables. They are, in fact, an extension of the ideas underlying the form divisions, form classes, linguistic divisions, geographic divisions, etc. provided in the previous editions of the DDC scheme. The seven auxiliary tables in DDC are as follows :

- Table-1 : Standard Subdivisions
- Table-2 : Areas
- Table-3 : Subdivisions of Individual literatures
- Table-4 : Subdivisions of Individual languages
- Table-5 : Racial, ethnic, national groups
- Table-6 : Languages
- Table-7 : Persons

Notation from these tables form basis for much of the number building, that is, synthesis of a class number. (The detailed explanation of these seven tables and their application are given with examples in Units 4 to 7).

15. **The Index :** The provision of the index in volume 3 is considered as one of the lasting contributions of Melvil Dewey. It is of great help to the classifiers to approach the schedules through the index. It is a relative index since it brings together all aspects of a single subject which would otherwise be scattered by discipline in the schedule. (How to use Index is given in detail in Unit 2).

16. **The Glossary :** The inclusion of Glossary in the first volume is a valuable feature. This feature has been introduced since the 18th edition. The Glossary explains the meanings of all the technical terms used in the system.

Self-Check Exercise-2

Note : i) Write your answer in the space given below.

ii) Compare your answer with the model answer given at the end of this unit.

(a) What are the properties of decimal fraction notation ?

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(b) What is the use of the dot and the spaces used in DDC Numbers?

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(c) How many auxiliary tables are there in DDC 19th edition? Name them.

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1.3.3 USING THREE SUMMARIES

Remember while classifying in the library the books will be in your hands, so it depends on your own knowledge of the subjects. The titles of many books come with subject names you have seen in the three summaries. Finding class numbers and assigning them for such titles is not difficult.

Let us presume that the subject of a book is 'Chemistry' and you have to find the class number for it. This is to be done without much loss of time because in the library there will be many books waiting for classification and you cannot afford to devote much time for each book.

We have seen that all the subjects are broadly put under ten main classes in the First Summary. If you go through the First Summary you will immediately know that chemistry is to be classified under Pure Sciences or under the main class 500. Your searching for the exact number for chemistry is restricted to the class 500. Now go to the Second Summary and glance at 500, you will find Chemistry is listed against the number 540. So the number for Chemistry is 540. You can assign the class number 540 to the book.

Let us take another title, say 'Modern Physics'. Now you know that Physics is classed under 500 Pure sciences in the First Summary. If you search under 500 Pure sciences in the Second Summary you will come to class number 530 assigned for Physics. Then if you search further in the Third Summary under 530 Physics, you will find Modern Physics is listed against 539. So the class number for Modern Physics is 539.

Remember that the subjects and their class numbers are listed extensively in Volume-two 'Schedules'. So verify the subject and the class number assigned to it with those in the Schedules. You find necessary instructions relating to your subject.

Understanding the subject of all titles and assigning class numbers to them is not that simple. You find a variety of titles given to books and often we find it difficult to ascertain the subject of the book. You will learn how to ascertain the subject of a book in Unit-2.

1.4 SUMMING UP

In this unit we have introduced you to the 19th edition of the Dewey Decimal Classification (in short DDC). We have described its basic plan and structure. The first edition was published in 1876 as a pamphlet of 42 pages and the 19th edition was issued in three volumes in 1979. The DDC system organises the universe of knowledge into ten main classes (0 to 9) and uses decimal fraction notation. It uses the principle of hierarchical force, where more specific concept is subordinate to all the broader concepts. DDC also uses auxiliary tables and various devices for number building, which will be introduced in detail in the following units.

1.5 MODEL ANSWERS

1. The three volumes of DDC are: Volume-1: Introduction, Tables; Volume-2: Schedules; and Volume-3: Relative Index.
2. a) In decimal fraction notation, a number is preceded by a decimal point. e.g., 0.25. In DDC a decimal point is assumed to be present before every class number and in actual practice the zeros and the decimal point are ignored while writing the class numbers.
b) The dot is to be inserted in between the third and the fourth digit. This helps as a psychological break to the monotony of numerals and for easy transcription of class numbers. The spaces after every three digits after the dot help on the same lines of dot in giving relief to the eyes and facilitate retention of class number in memory for a short while.

c) There are seven auxiliary tables in the DDC 19th edition.

Table-1 : Standard Subdivisions

Table-2 : Areas

Table-3 : Subdivisions of Individual literatures

Table-4 : Subdivisions of Individual languages

Table-5 : Racial, ethnic, national groups

Table-6 : Languages

Table-7 : Persons

1.6 ASSIGNMENT

1. Visit any library of your locality and observe the classification used there.
2. Take a sample of ten books from different subjects and tally the subject and the class number (upto first three digits) in the Third Summary.

1.7 RECOMMENDED BOOKS

1. Batty C D : *An Introduction to the nineteenth edition of the Dewey Decimal Classification*. London : Clive Bingley, 1981.
2. Bloomberg, Marty and Webber, Hans : *An introduction to classification and number building in Dewey*. Littleton, Colo : Libraries unlimited, 1976.
3. Dewey, Melvil : *Dewey Decimal Classification and Relative Index, 19th edition*. Volume 1 : Introduction and Tables. New York: Forest Press, 1979.
4. Dhyani, Pushpa : *Dhyani's Guide to Dewey Decimal Classification*. New Delhi : Metropolitan Book Co., 1985.
5. Gangadhara Rao, P. *Synthesis in DDC : 18th Edition*. Waltair : Andhra University, 1983.
6. Krishan Kumar : *Theory of Classification*. New Delhi : Vikas, 1979.
7. Maltby, Arthur : *Syer's manual of classification for Librarians*. 5th edition. London : Andre Deutsch; A Grafton Book, 1975.
8. *Manual on the use of the Dewey Decimal Classification : 19th Edition*. New York : Forest Press, 1982.
9. Osborne, Jeanne : *Dewey decimal Classification, 19th edition : a study manual*. Littleton, Colo : Libraries unlimited, 1982.
10. Satija, M.P. and Comaromi, John P : *Introduction to the Practice of Dewey Decimal Classification*. New Delhi : Sterling, 1987.

1.8 GLOSSARY

Base number : (1) In a sequence of numbers, that portion which does not vary but remains the same in each member of the sequence. To this number digits from the tables or from another sequence in the schedules may be added as instructed. (2) The unvarying portion of a sequence from which digits are taken to form another sequence may also be referred to as a base number.

Book number : That portion of a call number which designates a specific individual work within its class. It may consist of author number and/or other elements.

Call number : A set of letters, numerals, and/or other symbols providing complete identification of individual work and its relative location, consisting of class and book number and sometimes of such other data as date, volume number, copy number, location symbol.

Centered entry : An entry representing a concept for which there is no specific number in the hierarchy of notation, and which, therefore, covers a span of numbers.

Class number : That portion of a call number which designates the class of a given work.

Classification : (1) An arrangement in some logical order of the whole field of knowledge, or of some specified portion thereof. (2) The art of arranging books or other objects in conformity with such a scheme.

Classify : To arrange a collection of works according to the provisions of a classification scheme.

Hierarchy : The arrangement of disciplines and subjects in an order ranging from the most general to the most specific. In DDC degree of specificity is usually indicated by length of notation and always by depth of indentation.

Memory aid : Any of various methods of using the same combination of numbers to represent the same topic in various contexts.

Notation : Numerals, letters, and/or other symbols used to represent the main and subordinate divisions of a classification scheme.

Ordinal Numbers : Numbers merely indicate order/sequence and are devoid of any cardinal value. For instance the value of 22 should be read as two-two but not twenty two.

Reduction of numbers : Dropping by the classifier of one or more digits at the end of a number given in the schedules or tables. Results in a shorter number with a more inclusive meaning, thus in broader classification.

Relocation : An adjustment in the schedules resulting in the shifting of a topic between successive editions from one number to another that differs in respects other than length.

Reuse of numbers : A total change in the meaning of a given number from one edition to another. Rarely occurs in DDC unless the reused number has been vacant for two consecutive editions.

Schedules : The series of numbers constituting the notation for the ten main DDC classes and all their subdivisions. Formerly called 'general tables or tables'.

Scope Note : A note enumerating special qualifications generally applicable to a subject and its subdivisions but not given a separate development.

Section of DDC : The third degree of subdivision in the classification (the second degree of subdivision of one of the ten main classes, and the first degree of subdivision of one of the 100 divisions), represented by the third digit in the notation, e.g., the 9 in 629. There are approximately 1000 sections.

Table : A sequence of dependent notations indicating various special concepts used repeatedly with a variety of subjects and disciplines. Used in number building but never by itself. Also called 'auxiliary table'. Formerly called 'supplementary tables'. The term tables was formerly used also for what are now called Schedules.

THE THREE SUMMARIES

THE FIRST SUMMARY

The 10 Main Classes

- 000 Generalities
- 100 Philosophy & related disciplines
- 200 Religion
- 300 Social Sciences
- 400 Language
- 500 Pure sciences
- 600 Technology (Applied Sciences)
- 700 The arts
- 800 Literature (Belles-letters)
- 900 General geography & history

BRAOOU

SECOND SUMMARY

The 100 Divisions

- 000 GENERALITIES**
- 010 Bibliography
- 020 Library & Information sciences
- 030 General encyclopedic works
- 040
- 050 General serial publications
- 060 General organizations & museology
- 070 Journalism, publishing, newspapers
- 080 General collections
- 090 Manuscripts & book rarities

- 100 PHILOSOPHY & RELATED DISCIPLINES**
- 110 Metaphysics
- 120 Epistemology, causation, humankind
- 130 Paranormal phenomena & arts
- 140 Specific philosophical viewpoints
- 150 Psychology
- 160 Logic
- 170 Ethics (Moral philosophy)
- 180 Ancient, medieval, oriental
- 190 Modern western philosophy

- 200 RELIGION**
- 210 Natural religion
- 220 Bible
- 230 Christian theology
- 240 Christian moral & devotional
- 250 Local church & religious theology
- 260 Social & ecclesiastical theology
- 270 History & geography of church
- 280 Christian denominations & sects
- 290 Other & comparative religions

- 300 SOCIAL SCIENCES**
- 310 Statistics
- 320 Political science
- 330 Economics
- 340 Law
- 350 Public administration
- 360 Social problems & services
- 370 Education
- 380 Commerce (Trade)
- 390 Customs, etiquette, folklore

- 400 LANGUAGE**
- 410 Linguistics
- 420 English & Anglo-Saxon languages
- 430 Germanic languages German
- 440 Romance languages French
- 450 Italian, Romanian, Rhaeto-Romanic
- 460 Spanish & Portuguese languages
- 470 Italic languages Latin
- 480 Hellenic Classical Greek
- 490 Other languages

500 PURE SCIENCES

- 510 Mathematics
- 520 Astronomy & allied sciences
- 530 Physics
- 540 Chemistry & allied sciences
- 550 Sciences of earth & other worlds
- 560 Paleontology
- 570 Life sciences
- 580 Botanical sciences
- 590 Zoological sciences

600 TECHNOLOGY (APPLIED SCIENCES)

- 610 Medical sciences
- 620 Engineering & allied sciences
- 630 Agriculture & related technologies
- 640 Home economics & family living
- 650 Management & auxiliary services
- 660 Chemical & related technologies
- 670 Manufactures
- 680 Manufacture for specific uses
- 690 Buildings

700 THE ARTS

- 710 Civic & landscape art
- 720 Architecture
- 730 Plastic arts Sculpture
- 740 Drawing, decorative & minor arts
- 750 Painting & paintings
- 760 Graphic arts Prints
- 770 Photography & photographs
- 780 Music
- 790 Recreational & performing arts

800 LITERATURE (Belles-letters)

- 810 American literature in English
- 820 English & Anglo-Saxon literature
- 830 Literatures of Germanic languages
- 840 Literatures of Romance languages
- 850 Italian, Romanian, Rhaeto-Romanic
- 860 Spanish & Portuguese literatures
- 870 Italic literatures Latin
- 880 Hellenic literatures Greek
- 890 Literatures of other languages

900 GENERAL GEOGRAPHY & HISTORY

- 910 General geography Travel
- 920 General biography & genealogy
- 930 General history of ancient world
- 940 General history of Europe
- 950 General history of Asia
- 960 General history of Africa
- 970 General history of North America
- 980 General history of South America
- 990 General history of other areas

BRAOU

THIRD SUMMARY

The 1000 Sections

GENERALITIES

000 GENERALITIES

- 001 Knowledge
- 002 The book
- 003 Systems
- 004
- 005
- 006
- 007
- 008
- 009

010 BIBLIOGRAPHY

- 011 Bibliographies
- 012 Of individuals
- 013 Of works by specific classes of writers
- 014 Of anonymous & pseudonymous works
- 015 Of works from specific places
- 016 Subject bibliographies & catalogs
- 017 General subject catalogs
- 018 Author & date catalogs
- 019 Dictionary catalogs

020 LIBRARY & INFORMATION SCIENCES

- 021 Library relationships
- 022 Physical plant
- 023 Personnel & positions
- 024
- 025 Library Operations
- 026 Libraries of specific subjects
- 027 General libraries
- 028 Reading & use of information media
- 029

030 GENERAL ENCYCLOPEDIA WORKS

- 031 American
- 032 Others in English
- 033 In other Germanic languages
- 034 In French, Provençal, Catalan
- 035 In Italian, Romanian, Rhaeto-Romanic
- 036 In Spanish & Portuguese
- 037 In Slavic languages
- 038 In Scandinavian languages
- 039 In other languages

Dr. BRASS
LIBRARY

Acc. No.
Class No.

114929
025
LIB

- 040
- 041
- 042
- 043
- 044
- 045
- 046
- 047
- 048
- 049

050 GENERAL SERIAL PUBLICATIONS

- 051 American
- 052 Others in English
- 053 In other Germanic languages
- 054 In French, Provençal, Catalan
- 055 In Italian, Romanian, Rhaeto-Romanic
- 056 In Spanish & Portuguese
- 057 In Slavic languages
- 058 In Scandinavian languages
- 059 In other languages

060 GENERAL ORGANIZATIONS & MUSEOLOGY

- 061 In North America
- 062 In British Isles
- 063 In central Europe
- 064 In France & Monaco
- 065 In Italy & adjacent territories
- 066 In Iberian Peninsula & adjacent islands
- 067 In eastern Europe
- 068 In other areas
- 069 In Museology (Museum science)

070 JOURNALISM, PUBLISHING, NEWSPAPERS

- 071 In North America
- 072 In British Isles
- 073 In central Europe
- 074 In France & Monaco
- 075 In Italy & adjacent territories
- 076 In Iberian Peninsula & adjacent islands
- 077 In eastern Europe
- 078 In Scandinavia
- 079 In other areas

080 GENERAL COLLECTION

- 081 American
- 082 Others in English
- 083 In other Germanic languages
- 084 In French, Provençal, Catalan
- 085 In Italian, Romanian, Rhaeto-Romanic
- 086 In Spanish & Portuguese
- 087 In Slavic languages
- 088 In Scandinavian languages
- 089 In other languages

090 MANUSCRIPTS & BOK RARITIES

- 091 Manuscripts
- 092 Block books
- 093 Incunabula
- 094 Printed books
- 095 Books notable for bindings
- 096 Notable illustrations & materials
- 097 Notable ownership or origin
- 098 Works notable for content
- 099 Books notable for format

BRAOU

PHILOSOPHY AND RELATED DISCIPLINES

100 PHILOSOPHY AND RELATED DISCIPLINES

- 101 Theory of philosophy
- 102 Miscellany of philosophy
- 103 Dictionaries of Philosophy
- 104
- 105 Serials on philosophy
- 106 Organizations of philosophy
- 107 Study & teaching of philosophy
- 108 Treatment among groups of persons
- 109 Historical treatment of philosophy

110 METAPHYSICS

- 111 Ontology
- 112
- 113 Cosmology
- 114 Space
- 115 Time
- 116 Evolution
- 117 Structure
- 118 Force & energy
- 119 Number & quality

120 EPISTEMOLOGY, CAUSATION, HUMANKIND

- 121 Epistemology
- 122 Causation
- 123 Determinism & indeterminism
- 124 Teleology
- 125
- 126 The self
- 127 The unconscious & the subconscious
- 128 Humankind
- 129 Origin & destiny of individual souls

130 PARANORMAL PHENOMENA & ARTS

- 131 Well-being, happiness, success
- 132
- 133 Parapsychology & occultism
- 134
- 135 Dreams & mysteries
- 136
- 137 Analytic & divinatory graphology
- 138 Physiognomy
- 139 Phrenology

140 SPECIFIC PHILOSOPHICAL VIEWPOINTS

- 141 Idealism & related systems & doctrines
- 142 Critical philosophy
- 143 Intuitionism & Bergsonism
- 144 Humanism & related systems
- 145 Sensationalism & ideology
- 146 Naturalism & related systems
- 147 Pantheism & related systems
- 148 Liberalism & other systems
- 149 Other systems & doctrines

150 PSYCHOLOGY

- 151
- 152 Physiological Psychology
- 153 Intelligence & intellect
- 154 Subconscious states & processes
- 155 Differential & genetic psychology
- 156 Comparative psychology
- 157 Abnormal & clinical psychologies
- 158 Applied psychology
- 159 Other aspects

160 LOGIC

- 161 Induction
- 162 Deduction
- 163
- 164
- 165 Fallacies & sources of error
- 166 Syllogisms
- 167 Hypotheses
- 168 Argument & persuasion
- 169 Analogy

170 ETHICS (Moral Philosophy)

- 171 System & doctrines
- 172 Political ethics
- 173 Ethics of family relationships
- 174 Professional & occupational ethics
- 175 Ethics of recreation & leisure
- 176 Ethics of sex & reproduction
- 177 Ethics of social relations
- 178 Ethics of consumption
- 179 Other ethical norms

180 ANCIENT, MEDIEVAL, ORIENTAL PHILOSOPHY

- 181 Oriental
- 182 Pre-Socratic Greek
- 183 Sophistic, Socratic & related Greek
- 184 Platonic
- 185 Aristotelian
- 186 Skeptic & Neoplatonic
- 187 Epicurean
- 188 Stoic
- 189 Medieval Western

190 MODERN WESTERN PHILOSOPHY

- 191 United States & Canada
- 192 British Isles
- 193 Germany & Austria
- 194 France
- 195 Italy
- 196 Spain & Portugal
- 197 Russia & Finland
- 198 Scandinavia
- 199 Other geographical areas

RELIGION

200 RELIGION

- 201 Philosophy of Christianity
- 202 Miscellany of Christianity
- 203 Dictionaries of Christianity
- 204 Special topics of general applicability
- 205 Serials on Christianity
- 206 Organizations of Christianity
- 207 Study & teaching of Christianity
- 208 Christianity among groups of persons
- 209 History & geography of Christianity

210 NATURAL RELIGION

- 211 Concepts of God
- 212 Nature of God
- 213 Creation
- 214 Theodicy
- 215 Science & religion
- 216 Good & evil
- 217
- 218 Humankind
- 219 Analogy

220 BIBLE

- 221 Old Testament
- 222 Historical books of Old Testament
- 223 Poetic books of Old Testament
- 224 Prophetic books of Old Testament
- 225 New Testament
- 226 Gospels & Acts
- 227 Epistles
- 228 Revelation (Apocalypse)
- 229 Apocrypha & pseudepigrapha

230 CHRISTIAN THEOLOGY

- 231 God
- 232 Jesus Christ & his family
- 233 Humankind
- 234 Salvation (soteriology) & grace
- 235 Spiritual beings
- 236 Eschatology
- 237
- 238 Creeds & confessions of faith
- 239 Apologetics & polemics

240 CHRISTIAN MORAL & DEVOTIONAL THEOLOGY

- 241 Moral theology
- 242 Devotional literature
- 243 Evangelistic writings for individuals
- 244
- 245 Hymns without music
- 246 Art in Christianity
- 247 Church furnishings & articles
- 248 Christian experience, practice, life
- 249 Christian observances in family life

250 LOCAL CHURCH & RELIGIOUS ORDERS

- 251 Preaching (Homiletics)
- 252 Texts of sermons
- 253 Secular clergymen & duties
- 254 Parish government & administration
- 255 Religious congregations & orders
- 256
- 257
- 258
- 259 Parochial activities

260 SOCIAL & ECCLESIASTICAL THEOLOGY

- 261 Social theology
- 262 Ecclesiology
- 263 Times & places of religious observance
- 264 Public worship
- 265 Other rites, ceremonies, ordinances
- 266 Missions
- 267 Associations for religious work
- 268 Religious training & instruction
- 269 Spiritual renewal

270 HISTORY & GEOGRAPHY OF CHURCH

- 271 Religious congregations & orders
- 272 Persecutions
- 273 Doctrinal controversies & heresies
- 274 Christian church in Europe
- 275 Christian church in Asia
- 276 Christian church in Africa
- 277 Christian church in North America
- 278 Christian church in South America
- 279 Christian church in other areas

280 CHRISTIAN DENOMINATIONS & SECTS

- 281 Primitive & Oriental churches
- 282 Roman Catholic Churches
- 283 Anglican churches
- 284 Protestants of Continental origin
- 285 Presbyterian & related churches
- 286 Baptist, Disciples, Adventist
- 287 Methodist churches
- 288 Unitarianism
- 289 Other denominations & sects

290 OTHER & COMPARATIVE RELIGIONS

- 291 Comparative religion
- 292 Classical (Greek & Roman) religion
- 293 Germanic religion
- 294 Religions of Indic Origin
- 295 Zoroastrianism
- 296 Judaism
- 297 Islam & religions derived from it
- 298
- 299 Other religions

SOCIAL SCIENCES

300 SOCIAL SCIENCES

- 301 Sociology
- 302 Social interaction
- 303 Social processes
- 304 Relation of natural factors
- 305 Social stratification
- 306 Culture and institutions
- 307 Communities
- 308
- 309

310 STATISTICS

- 311
- 312 Statistics of populations
- 313
- 314 General statistics of Europe
- 315 General statistics of Asia
- 316 General statistics of Africa
- 317 General statistics of North America
- 318 General statistics of South America
- 319 General statistics of other areas

320 POLITICAL SCIENCE

- 321 Kinds of governments and states
- 322 Relation of state to social groups
- 323 Relations of state to its residents
- 324 The political process
- 325 International migration
- 326 Slavery & emancipation
- 327 International relations
- 328 Legislation
- 329

330 ECONOMICS

- 331 Labour economics
- 332 Financial economics
- 333 Land economics
- 334 Cooperatives
- 335 Socialism & related systems
- 336 Public Finance
- 337 International economics
- 338 Production
- 339 Macroeconomics & related topics

340 LAW

- 341 International law
- 342 Constitutional & administrative law
- 343 Miscellaneous public law
- 344 Social law
- 345 Criminal law
- 346 Private law
- 347 Civil Procedure & courts
- 348 Statutes, regulations, cases
- 349 Law of individual states & nations

350 PUBLIC ADMINISTRATION

- 351 Central governments
- 352 Local governments
- 353 U.S. Federal & state governments
- 354 Other central governments
- 355 Military art & science
- 356 Foot forces & warfare
- 357 Mounted forces & warfare
- 358 Armored, technical, air, space forces
- 359 Sea (Naval) forces & warfare

360 SOCIAL PROBLEMS & SERVICES

- 361 Social problems & welfare
- 362 Social welfare problems & services
- 363 Other social problems & services
- 364 Criminology
- 365 Penal institutions
- 366 Associations
- 367 General clubs
- 368 Insurance
- 369 Miscellaneous kinds of associations

370 EDUCATIONS

- 371 Generalities of education
- 372 Elementary education
- 373 Secondary education
- 374 Adult education
- 375 Curriculums
- 376 Education of women
- 377 Schools & religion
- 378 Higher education
- 379 Education & the state

380 COMMERCE (TRADE)

- 381 Internal commerce
- 382 International commerce
- 383 Postal communication
- 384 other systems of communication
- 385 Railroad transportation
- 386 Inland waterway & ferry transportation
- 387 Water, air, space transportation
- 388 Ground transportation
- 389 Metrology & standardization

390 CUSTOMS, ETIQUETTE, FOLKLORE

- 391 Costume & personal appearance
- 392 Customs of life cycle & domestic life
- 393 Death customs
- 394 General customs
- 395 Etiquette (Manners)
- 396
- 397
- 398 Folklore
- 399 Customs of war & diplomacy

LANGUAGE

400 LANGUAGE

- 401 Philosophy & theory
- 402 Miscellany
- 403 Dictionaries & encyclopedias
- 404 Special topics of general applicability
- 405 Serial publications
- 406 Organizations
- 407 Study & teaching
- 408 Treatment among groups of persons
- 409 Historical & geographical treatment

410 LINGUISTICS

- 411 Notations
- 412 Etymology
- 413 Polyglot dictionaries
- 414 Phonology
- 415 Structural systems (Grammar)
- 416
- 417 Dialectology & paleography
- 418 Usage (Applied linguistics)
- 419 Verbal languages not spoken or written

420 ENGLISH & ANGLO-SAXON LANGUAGES

- 421 Written & spoken English
- 422 English etymology
- 423 English dictionaries
- 424
- 425 English structural system
- 426
- 427 Nonstandard English
- 428 Standard English usage
- 429 Anglo-saxon (Old English)

430 GERMANIC LANGUAGES GERMAN

- 431 Written & spoken German
- 432 German etymology
- 433 German dictionaries
- 434
- 435 German structural system
- 436
- 437 Nonstandard German
- 438 Standard German usage
- 439 Other Germanic languages

440 ROMANCE LANGUAGES FRENCH

- 441 Written & spoken French
- 442 French etymology
- 443 French dictionaries
- 444
- 445 French structural system
- 446
- 447 Nonstandard French
- 448 Standard French usage
- 449 Provençal & Catalan

450 ITALIAN, ROMANIAN, RHAETO-ROMANIC

- 451 Written & spoken Italian
- 452 Italian etymology
- 453 Italian dictionaries
- 454
- 455 Italian structural systems
- 456
- 457 Nonstandard Italian
- 458 Standard Italian usage
- 459 Romanian & Rhaeto-Romanic

460 SPANISH & PORTUGUESE LANGUAGES

- 461 Written & spoken Spanish
- 462 Spanish etymology
- 463 Spanish dictionaries
- 464
- 465 Spanish structural system
- 466
- 467 Nonstandard Spanish
- 468 Standard Spanish usage
- 469 Portuguese

470 ITALIC LANGUAGES LATIN

- 471 Written & spoken classical Latin
- 472 Classical Latin etymology
- 473 Classical Latin dictionaries
- 474
- 475 Classical Latin structural system
- 476
- 477 Old, Postclassical, Vulgar Latin
- 478 Classical Latin usage
- 479 Other Italic languages

480 HELLENIC LANGUAGES CLASSICAL GREEK

- 481 Written & spoken classical Latin
- 482 Classical Greek etymology
- 483 Classical Greek dictionaries
- 484
- 485 Classical Greek structural system
- 486
- 487 Postclassical Greek
- 488 Classical Greek usage
- 489 Other Hellenic languages

490 OTHER LANGUAGES

- 491 East Indo-European & Celtic
- 492 Afro-Asiatic (Hamito-Semitic)
- 493 Hamitic & Chad languages
- 494 Ural-Altai, Paleosiberian, Dravidian
- 495 Sino-Tibetan & other
- 496 African languages
- 497 North American native languages
- 498 South American native languages
- 499 Other languages

PURE SCIENCES

500 PURE SCIENCES

- 501 Philosophy & theory
- 502 Miscellany
- 503 Dictionaries & encyclopedias
- 504
- 505 Serial publications
- 506 Organizations
- 507 Study & teaching
- 508 Travel & surveys
- 509 Historical & geographical treatment

510 MATHEMATICS

- 511 Generalities
- 512 Algebra
- 513 Arithmetic
- 514 Topology
- 515 Analysis
- 516 Geometry
- 517
- 518
- 519 Probabilities & applied mathematics

520 ASTRONOMY & APPLIED SCIENCES

- 521 Theoretical astronomy
- 522 Practical & spherical astronomy
- 523 Descriptive astronomy
- 524
- 525 Earth (Astronomical geography)
- 526 Mathematical geography
- 527 Celestial navigations
- 528 Ephemerides (Nautical almanacs)
- 529 Chronology (Time)

530 PHYSICS

- 531 Mechanics
- 532 Mechanics of fluids
- 533 Mechanics of gases
- 534 Sound & related vibrations
- 535 Light & paraphotic phenomena
- 536 Heat
- 537 Electricity & electronics
- 538 Magnetism
- 539 Modern physics

540 CHEMISTRY & ALLIED SCIENCES

- 541 Physical & theoretical chemistry
- 542 Laboratories, apparatus, equipment
- 543 Analytical chemistry
- 544 Qualitative chemistry
- 545 Quantitative chemistry
- 546 Inorganic chemistry
- 547 Organic chemistry
- 548 Crystallography
- 549 Mineralogy

550 SCIENCES OF THE EARTH & OTHER WORLDS

- 551 Geology, meteorology, hydrology
- 552 Petrology (Rocks)
- 553 Economic geology
- 554 Treatment in Europe
- 555 Treatment in Asia
- 556 Treatment in Africa
- 557 Treatment in North America
- 558 Treatment in South America
- 559 Treatment in other areas & worlds

560 PALEONTOLOGY

- 561 Paleontology
- 562 Fossil invertebrates
- 563 Fossil protozoa & other simple animals
- 564 Fossil Mollusca & molluscoidea
- 565 Other fossil invertebrates
- 566 Fossil Chordata
- 567 Fossil cold-blooded vertebrates
- 568 Fossil Aves (Fossil birds)
- 569 Fossil Mammalia

570 LIFE SCIENCES

- 571
- 572 Human races
- 573 Physical anthropology
- 574 Biology
- 575 Organic evolution & genetics
- 576 Microbes
- 577 General nature of life
- 578 Microzoology in biology
- 579 Collection & preservation of specimens

580 BOTANICAL SCIENCES

- 581 Botany
- 582 Spermatophytes
- 583 Dicotyledones
- 584 Monocotyledones
- 585 Gymnosperms
- 586 Cryptogamia
- 587 Pteridophytes
- 588 Bryophyta
- 589 Thallophyta

590 ZOOLOGICAL SCIENCES

- 591 Zoology
- 592 Invertebrates
- 593 Protozoa & other simple animals
- 594 Mollusca & molluscoidea
- 595 Other invertebrates
- 596 Chordata
- 597 Cold-blooded vertebrates
- 598 Aves (Birds)
- 599 Mammalia (Mammals)

TECHNOLOGY (APPLIED SCIENCES)

600 TECHNOLOGY (APPLIED SCIENCES)

- 601 Philosophy & theory
- 602 Miscellany
- 603 Dictionaries & encyclopedias
- 604 General technologies
- 605 Serial publications
- 606 Organizations & management
- 607 Study & teaching
- 608 Inventions & patents
- 609 Historical & geographical treatment

610 MEDICAL SCIENCES MEDICINE

- 611 Human anatomy, cytology, tissues
- 612 Human physiology
- 613 General & personal hygiene
- 614 Public health & related topics
- 615 Pharmacology & therapeutics
- 616 Diseases
- 617 Surgery & related topics
- 618 Other branches of medicine
- 619 Experimental medicine

620 ENGINEERING & ALLIED OPERATIONS

- 621 Applied physics
- 622 Mining & related operations
- 623 Military & nautical engineering
- 624 Civil engineering
- 625 Railroads, roads, highways
- 626
- 627 Hydraulic engineering
- 628 Sanitary & municipal engineering
- 629 Other branches of engineering

630 AGRICULTURE & RELATED TECHNOLOGIES

- 631 Crops & their production
- 632 Plant injuries, diseases, pests
- 633 Field crops
- 634 Orchards, fruits, forestry
- 635 Garden crops Vegetables
- 636 Animal husbandry
- 637 Dairy & related technologies
- 638 Insect culture
- 639 Nondomestic animals & plants

640 HOME ECONOMICS & FAMILY LIVING

- 641 Food & drink
- 642 Meal & table service
- 643 Housing & household equipment
- 644 Household utilities
- 645 Furnishing & decorating home
- 646 Sewing, clothing, personal living
- 647 Public households
- 648 Housekeeping
- 649 Child rearing & care of sick

650 MANAGEMENT & AUXILIARY SERVICES

- 651 Office services
- 652 Written communication processes
- 653 Shorthand
- 654
- 655
- 656
- 657 Accounting
- 658 General management
- 659 Advertising & public relations

660 CHEMICAL & RELATED TECHNOLOGIES

- 661 Industrial chemicals
- 662 Explosives, fuels, related products
- 663 Beverage technology
- 664 Food technology
- 665 Industrial oils, fats, waxes, gases
- 666 Ceramic & allied technologies
- 667 Cleaning, color, other technologies
- 668 Other organic products
- 669 Metallurgy

670 MANUFACTURES

- 671 Metal manufactures
- 672 Ferrous metals manufactures
- 673 Nonferrous metals manufactures
- 674 Lumber, cork, wood technologies
- 675 Leather & fur technologies
- 676 Pulp & paper technology
- 677 Textiles
- 678 Elastomers & their products
- 679 Other products of specific materials

680 MANUFACTURE FOR SPECIFIC USES

- 681 Precision & other instruments
- 682 Small forge work
- 683 Hardware & household appliances
- 684 Furnishings & home workshops
- 685 Leather & fur goods
- 686 Printing & related activities
- 687 Clothing
- 688 Other final products & packaging
- 689

690 BUILDINGS

- 691 Building materials
- 692 Auxiliary construction practices
- 693 Construction in specific materials
- 694 Wood construction Carpentry
- 695 Roofing
- 696 Utilities
- 697 Heating, ventilating, air conditioning
- 698 Detail finishing
- 699

THE ARTS

700 THE ARTS

- 701 Philosophy & theory
- 702 Miscellany
- 703 Dictionaries & encyclopedias
- 704 Special topics of general applicability
- 705 Serial publications
- 706 Organizations & management
- 707 Study & teaching
- 708 Galleries, museums, art collections
- 709 Historical & geographical treatment

710 CIVIC & LANDSCAPE ART

- 711 Area planning (Civic art)
- 712 Landscape design
- 713 Landscape design of traffic ways
- 714 Water features
- 715 Woody plants
- 716 Herbaceous plants
- 717 Structures
- 718 Landscape design of cemeteries
- 719 Natural landscapes

720 ARCHITECTURE

- 721 Architectural construction
- 722 Ancient & Oriental architecture
- 723 Medieval architecture
- 724 Modern architecture
- 725 Public structures
- 726 Buildings for religious purposes
- 727 Buildings for education & research
- 728 Residential buildings
- 729 Design & decoration

730 PLASTIC ARTS SCULPTURE

- 731 Processes & representations
- 732 Nonliterate, ancient, Oriental
- 733 Greek, Etruscan, Roman
- 734 Medieval sculpture
- 735 Modern sculpture
- 736 Carving & carvings
- 737 Numismatics & sigillography
- 738 Ceramic arts
- 739 Art metalwork

740 DRAWING, DECORATIVE & MINOR ARTS

- 741 Drawing & drawings
- 742 Perspective
- 743 Drawing & drawings by subject
- 744
- 745 Decorative & minor arts
- 746 Textile arts & handicrafts
- 747 Interior decoration
- 748 Glass
- 749 Furniture & accessories

750 PAINTING & PAINTINGS

- 751 Processes & forms
- 752 Color
- 753 Abstractions, symbolism, legend
- 754 Subjects of everyday life
- 755 Religion & religious symbolism
- 756 Historical events
- 757 Human figures & their parts
- 758 Other subjects
- 759 Historical & geographical treatment

760 GRAPHIC ARTS PRINTS

- 761 Relief processes
- 762
- 763 Lithographic processes
- 764 Chromolithography & serigraphy
- 765 Metal engraving
- 766 Mezzotinting & aquatinting processes
- 767 Etching & drypoint
- 768
- 769 Prints

770 PHOTOGRAPHY & PHOTOGRAPHS

- 771 Apparatus, equipment, materials
- 772 Metallic salt processes
- 773 Pigment processes of printing
- 774 Holography
- 775
- 776
- 777
- 778 Specific field of photography
- 779 Photographs

780 MUSIC

- 781 General principles
- 782 Dramatic music
- 783 Sacred music
- 784 Voice & vocal music
- 785 Instrumental ensembles & their music
- 786 Keyboard instruments & their music
- 787 String instruments & their music
- 788 Wind instruments & their music
- 789 Percussion, mechanical, electrical

790 RECREATIONAL & PERFORMING ARTS

- 791 Public performances
- 792 Theater (Stage presentations)
- 793 Indoor games & amusements
- 794 Indoor games of skill
- 795 Games of chance
- 796 Athletic & outdoor sports & games
- 797 Aquatic & air sports
- 798 Equestrian sports & animal racing
- 799 Fishing, hunting, shooting

LITERATURE (BELLES-LETTRES)

800 LITERATURE (BELLES-LETTRES)

- 801 Philosophy & theory
- 802 Miscellany about literature
- 803 Dictionaries & encyclopedias
- 804
- 805 Serial publications
- 806 Organizations
- 807 Study & teaching
- 808 Rhetoric & collections
- 809 History, description, critical appraisal

810 AMERICAN LITERATURE IN ENGLISH

- 811 Poetry
- 812 Drama
- 813 Fiction
- 814 Essays
- 815 Speeches
- 816 Letters
- 817 Satire & humor
- 818 Miscellaneous writings
- 819

820 ENGLISH & ANGO-SAXON LITERATURES

- 821 English poetry
- 822 English Drama
- 823 English fiction
- 824 English essays
- 825 English speeches
- 826 English letters
- 827 English satire & humor
- 828 English miscellaneous writings
- 829 Anglo-saxon (Old English)

830 LITERATURES OF GERMANIC LANGUAGES

- 831 German poetry
- 832 German Drama
- 833 German fiction
- 834 German essays
- 835 German speeches
- 836 German letters
- 837 German satire & humor
- 838 German miscellaneous & writings
- 839 Other Germanic literatures

840 LITERATURES OF ROMANCE LANGUAGES

- 841 French poetry
- 842 French Drama
- 843 French fiction
- 844 French essays
- 845 French speeches
- 846 French letters
- 847 French satire & humor
- 848 French miscellaneous writings
- 849 Proven & Catalan

850 ITALIAN, ROMANIAN, RHAETO-ROMANIC

851	Italian poetry		858
852	Italian drama		859
853	Italian fiction		
854	Italian essays		
855	Italian speeches		
856	Italian letters		
857	Italian satire & humor		
858	Italian miscellaneous writings		
859	Romanian & Rhaeto-Romanic		

860 SPANISH & PORTUGUESE LITERATURES

861	Spanish poetry		868
862	Spanish drama		869
863	Spanish fiction		
864	Spanish essays		
865	Spanish speeches		
866	Spanish letters		
867	Spanish satire & humor		
868	Spanish miscellaneous writings		
869	Portuguese		

870 ITALIC LITERATURES LATIN

871	Latin poetry		878
872	Latin dramatic poetry & drama		879
873	Latin epic poetry & fiction		
874	Latin lyric poetry		
875	Latin speeches		
876	Latin letters		
877	Latin satire & humor		
878	Latin miscellaneous writings		
879	Other Italic languages		

880 HELLENIC LITERATURES GREEK

881	Classical Greek poetry		888
882	Classical Greek drama		889
883	Classical Greek epic poetry		
884	Classical Greek lyric poetry		
885	Classical Greek speeches		
886	Classical Greek letters		
887	Classical Greek satire & humor		
888	Classical Greek miscellaneous writings		
889	Modern Greek		

890 LITERATURES OF OTHER LANGUAGES

891	East Indo-European & Celtic		896
892	Afro-Asiatic (Hamito-Semitic)		897
893	Hamitic & Chad literatures		
894	Ural-Altaic, Paleosiberian, Dravidian		
895	Sino-Tibetan & other Asian		
896	African literatures		
897	North American native literatures		
898	South American native literatures		
899	Other literatures		

GENERAL GEOGRAPHY & HISTORY AND THEIR AUXILIARIES

900 GENERAL GEOGRAPHY & HISTORY

- 901 Philosophy of general history
- 902 Miscellany of general history
- 903 Dictionaries of general history
- 904 Collected accounts of events
- 905 Serials on general history
- 906 Organizations of general history
- 907 Study & teaching of general history
- 908
- 909 General world history

910 GENERAL GEOGRAPHY TRAVEL

- 911 Historical geography
- 912 Graphic representations of earth
- 913 Geography of ancient world
- 914 Europe
- 915 Asia
- 916 Africa
- 917 North America
- 918 South America
- 919 Other areas & worlds

920 GENERAL BIOGRAPHY & GENEALOGY

- 921
- 922
- 923
- 924
- 925
- 926
- 927
- 928
- 929 Genealogy, names, insignia

930 GENERAL HISTORY OF ANCIENT WORLD

- 931 China
- 932 Egypt
- 933 Palestine
- 934 India
- 935 Mesopotamia & Iranian Plateau
- 936 Northern & western Europe
- 937 Italian peninsula & adjacent areas
- 938 Greece
- 939 Other parts of ancient world

940 GENERAL HISTORY OF EUROPE

- 941 British Isles
- 942 England & Wales
- 943 Central Europe Germany
- 944 France
- 945 Italy
- 946 Iberian Peninsula Spain
- 947 Eastern Europe Soviet Union
- 948 Northern Europe Scandinavia
- 949 Other parts of Europe

950 GENERAL HISTORY OF ASIA

- 951 China & adjacent areas
- 952 Japan & adjacent areas
- 953 Arabian Peninsula & adjacent areas
- 954 South Asia India
- 955 Iran (Persia)
- 956 Middle East (Near East)
- 957 Siberia (Asiatic Russia)
- 958 Central Asia
- 959 Southeast Asia

960 GENERAL HISTROY OF AFRICA

- 961 North Africa
- 962 Egypt & Sudan
- 963 Ethiopia (Abyssinia)
- 964 Northwest coast & offshore islands
- 965 Algeria
- 966 West Africa & Offshore islands
- 967 Central Africa & offshore islands
- 968 Southern Africa
- 969 South Indian Ocean islands

970 GENERAL HISTORY OF NORTH AMERICA

- 971 Canada
- 972 Middle America Mexico
- 973 United States
- 974 Northeastern United States
- 975 Southeastern United States
- 976 South central United States
- 977 North central United States
- 978 Western United States
- 979 Great Basin & Pacific Slope

980 GENERAL HISTORY OF SOUTH AMERICA

- 981 Brazil
- 982 Argentina
- 983 Chile
- 984 Bolivia
- 985 Peru
- 986 Colombia & Ecuador
- 987 Venezuela
- 988 Guianas
- 989 Paraguay & Uruguay

990 GENERAL HISTORY OF OTHER AREAS

- 991
- 992
- 993 New Zealand & Melanesia
- 994 Australia
- 995 New Guinea (Papua)
- 996 Other Parts of Pacific Polynesia
- 997 Atlantic Ocean islands
- 998 Arctic islands & Antarctica
- 999 Extraterrestrial worlds

UNIT-2 : ASCERTAINING SPECIFIC SUBJECT OF DOCUMENT; USE OF RELATIVE INDEX

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2.0 AIMS AND OBJECTIVES

The unit aims at explaining you how to ascertain the specific subject of a given document, and how to use the Relative Index.

After studying this unit you should be able to :

- distinguish the terms discipline, subject, specific subject, etc.;
- explain different ways of ascertaining the specific subject of a document; and
- describe how to use the Relative Index.

2.1 INTRODUCTION

Library classification is a process of classifying documents acquired by a library according to the specific subject contained in the document. The work of practical classification consists of two distinct phases. The first phase is to ascertain the 'specific subject' contained in the document and the second phase is to find out the appropriate class number from the classification scheme to the specific subject thus ascertained.

The former is an intellectual work and it is something of a subtle art. It requires a great deal of reading and a thorough knowledge of books with good educational background on the part of the classifier. The later is a mechanical work and it is a craft. It requires much experience.

2.2 ASCERTAINING THE SPECIFIC SUBJECT

Before proceeding to determine the specific subject of a document it is highly useful to have a clear understanding of the terms 'Discipline', 'Subject' and 'Specific subject'.

2.2.1 DISCIPLINE, SUBJECT AND SPECIFIC SUBJECT

A 'Discipline' is a branch of knowledge or learning and is primary, while a 'Subject' may be concrete object, an abstract concept, an activity or a process and is secondary. For example, Zoology (590) is a discipline, while Snakes (597.96) is a subject in it.

Similarly Agriculture (630) is a discipline and Nondomestic animals (639) is a subject in it; History (900) is a discipline and History of USA (973) is a subject in it.

2.2.2 SCATTERING OF SUBJECTS

The subjects are not necessarily limited to one field of study. They may appear in many disciplines. For instance, the subject 'marriage' occurs in different subjects. It belongs to 306 if it treats the subject from the point of view of Sociology; 155 if from the point of view of Psychology; 173 if from the point of view of Ethics; 392 if from the point of view of Customs; 613 if from the point of view of Hygiene. Thus a subject may scatter by discipline. See the following class numbers:

- 155.645 Married Status
- 173 Ethics of Family relationships
- 306.8 Marriage and family
- 392.5 Wedding and marriage (Customs)

2.2.3 AN EXAMPLE OF THE SPECIFIC SUBJECT

A specific subject is the most precise and least general which is appropriate for a particular document. It is the minute subdivision of a subject to the extent possible. In other words its extension and intention are equal to those of its thought content. Example,

- 630 Agriculture
- 639 Nondomestic animals
- 639.12 Hunting and trapping of birds

In the above hierarchy *Hunting and Trapping of Birds* (639.12) is a specific subject; in the subject 'Nondomestic animals' (639); which is the subject in the discipline 'Agriculture'.

2.3 DETERMINATION OF SPECIFIC SUBJECT

The 'Specific subject' of a document can be determined by examining the document under classification through its title, sub-title, preface, blurb, table of contents, certain of its chapters, index, the cited references, the name of its author, consultation of some reference tools, etc. Each of these different ways can be described as below:

1. **The title of the document:** In many cases the title of the work generally indicates its subjects if it is a 'tell-tale' title or 'simple title'.

A 'tell-tale title' or 'simple title' is the one that discloses the subject content of the document. For example, in the titles such as *Text Book of Geology, Outline of Hindu Philosophy, History of China* the subjects are clearly revealed.

However, some titles do not disclose the subject content of the document and these titles are called as 'illusive' or 'fanciful' or vague or misleading or deceptive titles. For example, the book *Roses in December* can be taken to mean cultivation of roses in the month of December. But actually it deals with the autobiography of Justice M.C. Chagla.

In the same way the book *Freedom at Midnight* can be taken to mean as a conducive time for thieves' or in many other ways, but actually it deals with the subject 'How India got freedom'. So also the title *320 Million Judges* may give the meaning that the book deals with the biographies of 320 million judges. But in reality this book deals with an analysis of 1977 Lok Sabha and State Assembly Elections in India.

The classifier, therefore should not depend on title alone to decide the subject of the document and some further investigation is necessary.

2. **Sub-title or alternative title:** In some cases the sub-title or an alternative title generally expresses the subject. Example: *An Essay in Personal Bibliography: Bibliography of the writings on and by S.R. Ranganathan*.
3. **Running title :** In case of works where there is no title page or where it is lost, the running title, which is usually printed on the top line of each verso page or on all the pages of a book, may be considered for ascertaining the subject.
4. **Series title :** The name of the series generally gives an idea of the subject.
5. **Table of contents :** This is one of the best guides to ascertain the subject matter of the work. Even in the case of a tell-tale title, it is always better to go through the table of contents to confirm the specific subject.
6. **Book jackets :** The inner flaps of the jackets of some books contain a brief account of the subject of the book and the author.
7. **Preface, Forward, Introduction, Author's Notes etc:** The conclusion drawn about the subject but going through the titles, series, table of contents or book jackets can be verified by going through the preface, introduction, marginal or foot notes of the author etc. In fact these are all good indication of author's point of view.
8. **Headings of chapters and subject matter :** A careful examination of some chapters or the entire work discloses the subject of the work.
9. **Index and Bibliographical references :** The index and the bibliographical references of the work and the class number given on the back side of its title page help to reveal the specific subject of the work as well as the relative importance of subject dealt in the work.
10. **Reference works :** The subject of the work can be obtained from external sources like bibliographies, classified and annotated catalogues, biographical dictionaries, encyclopedias, reliable book reviews and other reference works. Ex. *I.N.B., A.B.P.R. Books in print, Cumulative Book Index* etc.
11. **Subject specialists :** In case when all the above stated methods fail to ascertain the specific subject of the document, the classifier has to consult the subject specialists as a last resort.

2.4 CORE SUBJECT AND THE FORM OF PRESENTATION

Once the 'specific subject' is determined decisively, further it is necessary to distinguish the core subject from the view point of its treatment and the form in which the subject is presented by the author in the context of the classification system used.

For instance, take the subject "Education". It may be treated from the view-point of its philosophy, theory, history, research etc. Eg., *A Text Book of Philosophy of Education*. Here the subject Education is treated from the view point of its philosophy.

Similarly, a subject may be presented in the form of a dictionary, a journal, or a mere collection of data in a tabulated form. Eg., *A Journal of Education*. Here the subject Education is presented in the form of a journal.

Moreover, the classifier has to take into account of the physical form of the document such as a book, microfiche, video cassette, a film or a phonorecord. Thus a classifier has to analyse the given document into at least three distinct aspects, namely, determination of the core subject, then its viewpoint, and its physical media before he assigns the class number.

2.5 CONSISTENT PLACING OF DOCUMENTS

Besides determining the specific subject for a book there may arise many difficulties to class especially a composite book at its right place. In order to over-come such difficulties the classifier has to take into account the principles laid down by W.S. Merrill in his *Code for classifiers: Principles governing the consistent placing of books in a system of classification*. Some of the important principles are as stated below to be followed by the classifier to maintain consistency in assigning books to their appropriate places in a system of classification.

1. Class a work in its most useful place. It means the convenience of the reader must get fore-most consideration as the books are for their use.
2. Class work first according to subject and then by form (mode of presentation). It means first to determine the subject of the book and then to determine the methods in which the subject is presented. (dictionary, history, or collection etc.)
3. Class a work in its most specific subject (rather than broad subject).
4. Class a work according to the intent of the author in writing it. (The intention of the author itself determines the subject of the book).
5. Class a work which deals with two or three subjects, under the subject which appears to be most dominant. (Catalogue can help to compensate for this deficiency by providing added entries).
6. Class a work under the broad subject which covers them all if a work deals with more than three subjects.
7. Class a work dealing with two or more inter-related subjects with the one that receives the chief emphasis. This emphasis may be a consideration of the relative amount of space devoted to each subject, or the author's purpose, or both. For example, class with Keats an analytical work dealing with 'Shakespeare's influence on Keats'.
8. Class a work dealing with two or more subjects that are not particularly inter-related with the one that preponderates.
9. Class a work on three or more subjects that are subdivisions of a broad subject with the broader one if no emphasis or preponderance is readily apparent, eg. work dealing with Hinduism, Judaism, Islam in 290.
10. Class a work on three or more subjects which are not parts of a single broad subject or discipline, in 'Generalities' (000).
11. Class a work on two subjects with the one coming first in the Schedules if no emphasis or preponderance is readily apparent.
12. Class a work with the broader subject if two subjects are both subdivisions of a broader subject and together constitute the major portion of it.
13. Class an inter-disciplinary work dealing with a subject within two or more disciplines, that is, from two or more points of view or aspects, with the aspect that receives the most emphasis. For example, a work dealing with 'scientific and engineering principles of electro dynamics' is to be classed in 537.6.

14. Class a work dealing with a subject from two or more aspects but without emphasis on any aspect, with the aspect that preponderates.
15. Class a work dealing with a subject from two or more aspects, but with no apparent emphasis or preponderance in accordance with instructions on treatment of inter-disciplinary works given in the schedules.
16. Class a work dealing with a subject from two or more aspects with the underlying, basic, or purposive discipline if no apparent emphasis or preponderance, and no specific valid instruction on treatment of inter-disciplinary works.
17. Class a work dealing with a subject from two or more aspects in the discipline that comes first in the schedules in the absence of any other principle.
18. The translations, abridgements, criticism and reviews of it, commentaries on it, indexes and concordances to it are to be placed with the original work.

Self Check Exercise-1

Identify the major discipline and subject of the following titles:

- (a) *Hamlet*/William Shakespeare
- (b) *Lok Sabha Elections*
- (c) *Indian Penal Code*
- (d) *British Rule in India*
- (e) *Paediatrics*

- Note :
- i) Write your answer in the space given below.
 - ii) Compare your answers with those given at the end of this unit.

2.6 BASIC APPROACHES TO FIND OUT THE CLASS NUMBER

After deciding the specific subject the classifier has to proceed to locate the number for it in the sequences of the classes in the schedules given in Volume-2 and to locate the number for the aspects or form of presentation of the subject from the seven auxiliaries Tables given in Volume-2. There are two basic approaches to find out the class number. One is directly through the schedules, and the other is indirectly through the index.

2.5.1 APPROACH THROUGH SCHEDULES

If the approach is through the Schedules, the classifier has to determine first the main class, then its division, next the proper section, sub-section, and sub-sub-section and lastly the most specific number into which the work falls.

2.5.2 APPROACH THROUGH INDEX

However, it may be considered that the more reliable approach is through the index given in Volume-3. If the classifier's approach is through the 'index', he should first locate the entry for the subject, then examine the subheads under it for the proper aspects. Finding the most specific one that characterizes his work, he can then turn to the correct part of Schedules and analyze the specific number that appears appropriate. It is not advisable to classify a work on the basis of Index alone without referring to the Schedules.

Self Check Exercise-2

Find out the class numbers for the following titles.

- (a) *Library Administration*
- (b) *Palmistry*
- (c) *Hinduism*
- (d) *Banks and banking*
- (e) *International Trade*
- (f) *Historical geology*
- (g) *Heart diseases*
- (h) *Aerospace engineering*
- (i) *Architecture of temples*
- (j) *Telugu literature*

- Note: (i) Write your answer in the space given below.
(ii) Compare your answers with those given at the end of this unit.

2.7 ASSIGNING CLASS NUMBER DIRECTLY FROM SCHEDULES

Assigning class number directly from the Schedules depends on your knowledge of the subjects and their subdivision as done by Dewey. You have seen the Three Summaries and learnt how to use them for assigning Dewey numbers for simple titles. But you find all books acquired a library are not in broad subjects, many of them may be dealing with narrow subject fields. Our task is to give the number to the specific subject. You have to determine the number coextensive with the thought content of the book. Coextensive number means that the number used is not broader or narrower than the subject dealt with. If such a practice is not adhered to it will mislead the user and also the library when we have to retrieve a book on a particular subject.

You may not find coextensive class numbers in Three Summaries. Three Summaries give upto the level of sections (1000). Further subdivisions leading to the narrower subjects are given hierarchically in Volume-two: Schedules. Once you get acquainted with the Three Summaries, then you can scan the Schedules easily.

Now let us classify the following titles:

- a) *College and University libraries*
- b) *Indian philosophy*
- c) *Child labour*
- d) *Russian language*
- e) *Food microbiology*
- f) *Heart surgery*
- g) *Veterinary medicine*
- h) *High-speed photography*
- i) *French revolution*
- j) *India At the time of Ashoka*

Let us take titles one by one.

a) **College and university libraries** : It is obvious that the book should be classified under the main class '000 Generalities' and the division '020 Library and Information Science'. Then if you turn to the section you will find '027 General Libraries'. So we have to find coextensive number for our title under 027 in the Schedule (Volume-2). Different types of libraries are given under 027. If you verify the subdivisions under 027 you find 027.7 as College and university libraries. Therefore, the class number for our title is 027.7.

b) **Indian philosophy** : Repeat the same process. You know to which main class the book belongs. You will find the number 100 stands for Philosophy and related disciplines. You cannot assign this number because Philosophy is too broad a subject. Then turn to the division 180 Ancient, medieval, oriental philosophy and then to the section 181 Oriental philosophy. You know that India belongs to the Oriental region. If you search under this section, you find the subdivision 181.4 India. This number is coextensive with the thought content of the book.

c) **Child labour** : You know the division 330 Economics has a section on Labour economics (331) in the Third Summary. If you search under 331 Labour economics in the Schedules, you find the subdivision 331.3 Workers of specific age groups. If you search further you find 331.31 Children. Therefore, the class number for our title is 331.31.

d) **Russian language** : The main class number 400 deals with Languages and different languages are given under the divisions 410-490. The division 490 deals with Other languages and section 491 includes East Indo-European and Celtic languages. If you see the Summary given under 491 in the Schedules, you find the subdivision 491.7 East Slavic languages; Russian. Then verify the subdivisions of the Section and confirm the class number.

e) **Food Microbiology** : The Section 576 deals with Microbes in the Division 570 Life Sciences. If we see the note 'Class here microbiology' given under 576, you understand that the Microbiology is to be classified under this heading. If we search further we find 576.16 Economic microbiology and 576.163 Food microbiology. The class number for our title is 576.163.

f) **Heart surgery** : We know Surgery is an aspect of Medicine (610). The Section 617 is assigned to Surgery. If we search under this Section we find the number 617.4 Surgery by systems; 617.41 Cardiovascular systems; 617.412 Heart. So, 617.412 is the class number for our title 'Heart Surgery'.

g) **Veterinary medicine** : Dewey included Animal husbandry in 630 Agriculture and assigned the number 636. If we see the Summary given under 636 we come to 636.089 Veterinary Sciences; Veterinary medicine.

h) **High-speed photography** : 700 Arts includes a division on Photography (770). The Section 778 includes specific fields and special kinds of photography and related activities. 778.37 is High-speed photography.

i) French revolution : This is part of the History of France (944), but our specific subject is French revolution, so we have to see the Schedules for further subdivision of 944. Here numbers are coined chronologically and if you scan you will come across French revolution listed against the number 944.04.

j) India at the time of Ashoka : We know the number for History of India is 954, but if you check there you will not find the correct number. Instead a number is given as [.01] Early history to 647 and a note given "Use of this number is optional; prefer 934". The numbers usually given in square brackets should not be used; in many cases they are optional numbers. Only in the exceptional cases we use these optional numbers. So we have to turn to the number 934. 934 stands for Ancient Indian history. Then we have to further check the number for the period of Indian history relating to King Ashoka. 934.05 stands for the period of Ashoka.

2.8 USING THE RELATIVE INDEX

The Relative Index has always been a part and parcel of DDC system from the beginning. The first edition (1876) contained 18 pages of index. The Relative Index of DDC has been considered as an enduring contribution of Melvil Dewey.

Dewey organised all known subjects in the Universe of knowledge into ten main classes based on the classifications of philosophers Bacon and Harris. This arrangement, though helpful, may not be logical and acceptable to all. Some of the subjects categorized under Social science are not finding their due-place in the main class Social sciences of DDC. For example, History and Geography are subjects in Social sciences, but adjusted as a separate main class. Therefore, we need an index to reveal the location of such subjects.

Classifiers have limited knowledge about different disciplines and subdivisions, but infact knowledge is infinite and multidimensional. The nomenclature is also changing from time to time. The Relative index is a key to help the classifiers to know the location of the subject in the over all system.

The Index is contained in Volume-3. It is a means of reference to the topics enumerated in the Schedules contained in Volume-2 and the Tables contained in Volume-1 of the DDC. In other words it contains an entry for every significant term named in the Schedules and the Tables. But it provides with only a general indication of a topic whose applications and subdivisions are laid out in the Schedules.

The Relative index, as the name suggests, not only arranges the concepts and their terms in an alphabetical sequence but also shows relation between the terms and the context in which the subjects appear in the Schedules. It provides class numbers on the right side against the subject terms on the left side. The arrangement is reverse to that of in the Schedules and Tables. See the following example :

Food	
allergies	616.975
chains	591.53
poisons	615.954
production	636.088 3
services	642

Numbers preceded by a dash and a term in italics in the Index are to be found in the Tables (Volume-1). DDC has used the following abbreviations to describe the tables:

<i>s.s.</i>	Table-1 : Standard Subdivisions
<i>area</i>	Table-2 : Area
<i>lit. sub.</i>	Table-3 : Subdivisions of Individual literature
<i>lang. sub.</i>	Table-4 : Subdivisions of Individual languages
<i>r.e.n.</i>	Table-5 : Racial, ethnic, national groups
<i>lang.</i>	Table-6 : Languages
<i>pers.</i>	Table-7 : Persons

For example, s.s. -028 is a Standard subdivision given in Table-1 for 'Techniques'.

In the Index the 'subject' of a document is to be searched than for the 'form' of presentation or the approach to it. The subject must be searched in its specific term rather than under its general term. For instance, in the title 'Techniques of welding', the work 'techniques' is the form and the word 'welding' is a specific subject. A search is therefore be made under 'welding'.

Sometimes a specific term may not appear in the index. Then a synonym or a more general term of it can be tried for. For example, the term 'cows' is not given either in the Index or in the Schedules. It is given in its synonymous term 'ruminants' against the class number 636.2 in the Schedules. Similarly, in place of the term 'Paddy' the term 'rice' is given against the class number 633.18 in the Schedules.

Sometimes a specific phrase may not appear in the Index. But it may appear under a term that can be formulated by reversing the order of the words of the phrase. In any case if a term is found it is to be verified in the Schedules in order to ensure its correctness. For example, the phrase 'animals without backbones' may not appear under 'animals' or 'back-bones'. But if the phrase is translated into 'invertebrates' it can be found in the Index.

Sometimes the Index may include terms that are used in the Schedules either because they are synonyms or because they are too specific to deserve a place of their own in the Scheme. For instance, 'Vassal states' has no place of its own, and the Index refers to "Dependent states" which has several places in the Schedules.

A subject that lies beyond the development of the Scheme may not appear both in the Index and in the schedules. In that case the nearest general heading or the class which would include the subject be sought for. In these cases the "scope notes" and "explanations" in the schedules can be of great help. For example, 553.84 is the number for "Sapphires" in the general field of 553.82-86 "Precious Stones" (553 Economic Geology). The "Mineralogy of Sapphires", however, belongs to the field of 549 Mineralogy. Sapphires are only one of a group of minerals of the "Hematite Group" (549.523), not all 'precious stones' and they must share a number with rubies, corundum and hematite. In fact 'sapphires' are not mentioned by that name in the Schedules, but in spite of this, they must be placed in the correct main class. So for the "Mineralogy of sapphires" in spite of their specific listing in 553.84, the more general heading of 549.523 "Mineralogy of the hematics group of oxides" is the best.

Very often the Index gives a second word or phrase after an entry term. For instance, the work 'lighting' occurs in 'Building', "Electrical Engineering", "Illumination Engineering", "Photography" etc. These scattered but related topics called as 'distributed relatives' help to distinguish a correct subject field to which the selected entry term belongs.

Sometimes a topic will have a specific place in the schedules for one aspect in one class, but will be included in another class for another aspect at a more general level. Further the topic may have even more applications and occurrences in less closely related classes. For instance if search is made for 'cats as agricultural pests in forestry plantations' in the Index it cannot be found under "cats" though there is an entry for cats. But "cats" includes s.a. (see also) "Felidae" and the entry "Felidae" includes "Agriculture pests" (632.697 4428).

A specific term that does not represent a specific topic is made from terms that they have many applications or many occurrence. Very often, this happens when the topic is a combination of two simple topics. For example, "Elementary school counselling" is a combination of "Counselling" and "Elementary schools". If a search is made under "Elementary schools" you find the following entry:

Elementary	
education	372
school	
libraries	027.822 2
teachers	370.712 2
schools	372.1

If you search under "Counselling", you find

Counselling	
armed forces	355.347
education	371.4
social services	361.06
s.a. specific levels of education	

In other words, a search through "Elementary schools" or "Elementary education" in the Index refers to counselling in the Schedules.

Examples :

Now let us try some examples to find class numbers from the Relative Index and then check the numbers with those in the Schedules.

- a) *Geriatrics*
- b) *Ophthalmology*
- c) *Preservation of library materials*
- d) *Folk beliefs*
- e) *Cancer*
- f) *Ethics and law*
- g) *Parent-Teacher relations*
- h) *Right-to-vote*
- i) *Fossil Aves*
- j) *Gregorian chants*

Let us take one by one.

a) *Geriatrics* : If we look under this term in the Relative Index (Volume-3), we find a direct number 618.97. Now let us check the number in the Schedules (Volume-2). We find 618.97 is Geriatrics.

b) *Ophthalmology* : If we look under this term in the Index, we find an entry (given in relation to gen. med.) showing the number 617.7. This means that 'Ophthalmology' is treated in Medical sciences.

c) *Preservation of library materials* : There are basically two concepts in this title - 'Preservation' and 'Library materials'. There is a chance of indexing under either any of these terms or both. Let us try with the term 'Preservation'. You find number 025.84 is given for Preservation in relation to library materials. Let us also try under the second term 'Library materials'. We find 025.84 is given for Library materials in relation to preservation. Now let us check the number in the Schedules. 025.84 stands for Preservation as a subdivision of 025.8 Maintenance and preservation of collection.

d) *Folk beliefs* : If you look under 'Folk' in the Index, you find an entry like this :

Folk	
beliefs	
folklore	398.41

Now let us check the number in the Schedules - 398 Folklore; 398.4 Paranatural and legendary as subjects; and 398.41 Folk beliefs.

e) *Cancer* : No entry under the term 'Cancer'. If we see under 'Cancers' (plural form of the word), you find there is a 'see' reference entry. Cancers see Malignant neoplasms. Malignant neoplasms (in relation to gen. med.) is given 616.994. In the Schedules the entry is given as follows :

516.994 Malignant neoplasms (Cancers)

f) *Ethics and Law* : There is a direct entry under 'Ethics' in the Relative index: Ethics & Law 340.112. But there is no entry under term 'Law' in the Index. But in the Schedules it is classified under 340 Law; 340.112 Laws and Ethics.

g) *Parent-Teacher Relations* : If we look under this phrase, we do not get any entry in the Relative index. Then try the reverse order of the terms 'Teacher-parent relations', we get the number 371.103.

h) *Right-to-vote* : The entry given under this phrase is 'Right-to-vote see Political rights. Then if we look under Political rights the following entry is found :

Political	
rights	
Law	
electrical	342.072
Pol.Sci.	323.5

If we check the numbers in the Schedules, we get

342.072	Voting rights and qualifications for voting
323.5	Political rights

It is appropriate to assign the number 342.072 since the work deals the constitutional aspects of voting rights.

i) *Fossil Aves* : If we look under this term in the index, we don't get any entry. We know 'Aves' means birds. So let us try its synonym 'Fossil birds'. It is also not listed in the index. Now let us try under broader aspect 'Bird'. There is no entry for 'Fossil birds', but you find the following 'see also' direction:

Birds	
s.a.	Aves

Then if we look under Aves you find 'Paleozoology' listed as a subdivision of Aves and the number is 568. In the Schedules 568 is referred as 'Fossil Aves (Fossil birds) Fossil Neornithes'.

j) *Gregorian chants* : The Relative index gives the following entry :

Gregorian chants	
see	Chants sacred music
Chants	
sacred music	783.5

In the Schedules the number is assigned like this :

783.5	Nonliturgical chants
	Gregorian, Ambrosian, Anglican, Jewish chants

Therefore, the class number for our title is 783.5.

Self Check Exercise-3

Classify the follow titles with the help of Relative Index (Volume-3) and then check the numbers in the Schedules (Volume-2).

- Scientology
- Library orientation
- Cuckoos
- Crime and press

- e) *Family ethics*
- f) *Extraction of mineral water*
- g) *Ionization of gas*
- h) *Post office savings bank*
- i) *Child psychology*
- j) *Sanitation engineering*

Note : i) Write you answer in the space given below.
ii) Compare your answer with those given at the end of this unit.

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2.9 SUMMING UP

In this unit we have discussed two aspects, viz., Ascertaining specific subject of a document and Use of Relative Index. Practical classification involves careful analysis of a document, since titles of documents are not expressive in many cases, we need to study the contents list - preface, introduction, textual matter, etc., and sometimes it may need to consult subject experts in ascertaining the specific subject. Once the specific subject is ascertained, the next step, is to assign appropriate class number. Basically there are two approaches: i) Assigning class number from the Schedules, and ii) Using Relative Index. Relative Index guide us in finding the numbers from the Schedules and Tables. It contains word-by-word sequence of all the terms used in the Schedules and Tables.

2.10 MODEL ANSWERS

1. a) Literature - English drama
- b) Political science - Elections-India
- c) Law - India - Statutes
- d) History - India - British rule
- e) Medicine - Paediatrics

2. a) 025.1
- b) 133.6
- c) 294.5
- d) 332.1
- e) 382
- f) 551.7
- g) 616.12

- h) 629.1
 - i) 726.1
 - j) 894.827
3. a) 299.936
- b) 025.56
 - c) 598.74
 - d) 345.056
 - e) 173
 - f) 622.373
 - g) 537.532
 - h) 332.22
 - i) 155.4
 - j) 628

2.11 ASSIGNMENT

1. What are the different parts of a document to be examined while determining the specific subject of a document?
2. What are the principles that govern the consistent placing of books in a system of classification?
3. What are the basic approaches to find out the class number of a document from DDC? Illustrate your answer with examples.

2.12 SUGGESTED READING

Batty, C.D. : *An introduction to the nineteenth edition of the Dewey Decimal Classification*. London : Clive Bingley, 1981.

Dewey Decimal Classification and Relative Index. 19th edition.
Edited by Benjamin A Custer. Albany, N.Y. Forest press, 1979.

Manual on the use of the Dewey Decimal Classification : 19th edition.
Albany, N.Y. Forest Press, 1982.

Osborne, Jeanne : *Dewey Decimal Classification - 19th edition: a study manual.*
Littleton, Colo. : Libraries unlimited, 1982.

2.13 GLOSSARY

Blurb : Publisher's description of the contents of a document. Generally such a description is printed on the paper jacket, etc.

Discipline : An organised field of study or a branch of knowledge/learning dealing with specific subjects considered from specific point of view.

Relative Index : An alphabetical index which brings together all aspects of a single subject which have otherwise been scattered by discipline in the Schedules.

Specific Subject : A division of knowledge whose extension and intension are equal to those of its thought content. It is a minute subdivision of a subject to the extent possible.

UNIT-3 : CLASS NUMBER BUILDING PRACTICES

Contents

- 3.0 Aims and Objectives
- 3.1 Introduction
- 3.2 Class Number Building
- 3.3 Number Building for single and specific subjects
- 3.4 Synthesis of Class numbers
 - 3.4.1 Base number
 - 3.4.2 Types of syntheses
 - 3.4.3 Examples
- 3.5 Summing up
- 3.6 Answers to Self-Check Exercises
- 3.7 Assignment
- 3.8 Recommended Books
- 3.9 Glossary

3.0 AIMS AND OBJECTIVES

In this unit we introduce you how to construct class numbers to the given documents.

- After studying this unit you will be able to
- explain how to construct class numbers to different documents; and
- use techniques of synthesis in class number building.

3.1 INTRODUCTION

A classifier before he attempts to classify a work should understand the whole DDC system thoroughly. A carefully study of the structure, the principles and the features of the DDC enables him to have working knowledge of the system. Then he has to analyse the given document (or the title of it) into its constituent parts, that is, specific subject, aspects, form of its presentation, point of view of its treatment, etc. Then the analysed parts are to be translated into the notation of the Scheme.

While analysing the document (or the title of the document in practice) the classifier has to ignore the auxiliaries and puffs such as the articles 'A', 'An' and 'The'; prepositions like in, from, to, out of, etc.; conjunctions like and, but, or, etc.; level of presentation like Introduction, Elements, Fundamentals, Premier, Advances, Story of, etc. For example in the title *An Introduction to Library Classification and Cataloguing*, 'An' is an article; 'Introduction' is level of presentation; 'To' is preposition; 'And' is a conjunction. Hence the words - 'An', 'Introduction', 'To' and 'And' are to be ignored. The 'Library Science - Classification - Cataloguing' will have to be represented in the class number.

3.2 CLASS NUMBER BUILDING

Class Number building means assigning class number to the given documents. The classifier has to assign each work to one of the main classes, divisions, sections, or sub-divisions or sub-sections or to the degree of specificity provided by the schedules. The class numbers are represented by 'Ordinal numbers'.

For locating the numbers in the Schedules and the Tables, you have to approach the Index (Volume-3) or you can directly proceed to the Schedules (Volume-2). You have learnt these basic approaches to find out the class number in Unit-2.

With the notations thus obtained you can proceed to construct the class number. While the simple subjects or specific subjects are given the class numbers directly as enumerated in the Schedules, the multifaced subjects need combination of numbers representing different subjects and ideas or aspects according with the synthesis rules given in the Schedules under the respective class numbers.

3.3 NUMBER BUILDING FOR SIMPLE AND SPECIFIC SUBJECTS

Simple subjects and many specific subjects have ready-made class numbers in the schedules. DDC is basically an enumerative scheme. See the following examples :

<i>Library Administration</i>	025.1
<i>Adult Psychology</i>	155.6
<i>Primitive Methodist Church</i>	287.4
<i>A Textbook of Rural Sociology</i>	307.72
<i>The Art of Translation</i>	418.02
<i>A Text Book of Physics</i>	530
<i>Manufacture of Colour TV Sets</i>	621.388 874
<i>Swimming for fitness and fun</i>	797.21
<i>Iranian Literature</i>	891.5
<i>The Reign of Aurangzeb (History of India)</i>	954.025 8

Self Check Exercises - 1

(A) Find out the subjects of the following class numbers in DDC.

- a) 070.49
- b) 155.532
- c) 370.113
- d) 530.42
- e) 652.307

Note: i) Write you answer in the space given below.
ii) Compare your answer with those given at the end of this unit.

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(B) Classify the following titles :

- a) *Unmanned space flights*
- b) *Asian influenzas*
- c) *Export policy*
- d) *Income laws*
- e) *Materia medica*

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3.4 SYNTHESIS OF CLASS NUMBER

In the case of multifaceted subjects the DDC follows combination of numbers representing different subjects or ideas. This kind of combination is called "synthesis". Synthesis of notation means number building. Synthesis of notation can be achieved according to instructions or directions of different kinds of notes given at the respective class numbers in the schedules.

In many of the multifaceted subjects the class number is to be built on the given base number. In the absence of indication of base number, the class number, that is, the significant notation of the class is to be used as it is.

3.4.1 BASE NUMBER

A base number is a part in a sequence of numbers. It does not change but remains the same in each member of the sequence. To this number digits from the Tables or from another sequence in the schedules may be added as instructed. Occasionally the base number is less than three digits or more than three digits. For example,

- 9 base number for 'History';
- 91 base number for 'Geography';
- 911 base number for 'Historical geography';
- 910.1 base number for 'Tropical geography';
- 910.09 base number for 'Geography and Travel in areas, regions, places in general'.

The base number is clearly stated in the accompanying note under a class where the "add" device is used.

3.4.2 TYPES OF SYNTHESSES

There are many kinds of multiple synthesis with the help of "Add" device, the facet indicator (connecting device) "0" (zero) and the use of general aspects common to many subjects given under 'Centered headings'. But these devices can not be used freely unless there is a direction to do so under the class number concerned. The different kinds of synthesis include:

- i) Combination of two main classes given in the Schedules as per instructions given under the hosting main class.

- ii) Combination of a main class with a part of another main class in the schedules according to the instructions given under the hosting main class.
- iii) Combination of a main class with the parts of more than one main class in the Schedules as per instructions given under the hosting main class.
- iv) Use of the general aspects common to many subjects listed under the 'Centered headings' here and there in the Schedules.
- v) Use of the notations from an auxiliary table or combination of notations from two different tables, with appropriate class numbers of the Schedules.

These different kinds of syntheses can be illustrated with the following examples under each kind.

3.4.3 EXAMPLES TO ILLUSTRATE DIFFERENT KINDS OF SYNTHESIS

In the following sections we illustrate the above first four kinds of syntheses with examples. The last kind needs the knowledge of seven auxiliary tables. So it will be dealt in the Units 4 to 7.

- i) Examples of Combination of two main classes given in Schedules as per instructions given under the hosting main class:

a) *Classification of books on political parties* 025.463 241

025.46 Classification of specific disciplines with provision to add 001-999 from the Schedules

324.2 Class number for 'Political parties'

$025.46 + 324.2 = 025.463 241$

b) *Zoological Museum* 069.959 1

069.9 'Museums' devoted to 'specific disciplines and subjects' with instructions to add from 001-999 from the Schedules

591 Class number for 'Zoology'

$069.9 + 591 = 069.959 1$

c) *Reporting Election News* 070.449 324 6

070.449 News reporting on a specific subject
(direction to add number from 001-999)

324.6 Elections

$070.449 + 324.6 = 070.449 324 6$

d) *Unemployment in Medical profession* 331.137 816 1

331.137 81 Unemployment in specific industries and occupations other than extractive, manufacturing, construction (direction to add from 001-999)

61 Medical Sciences (0 at the end of 610 is ignored)

$331.37 + 61 = 331.137 816 1$

c) *Statistics in Banks* 331.892 813 321

331.892 81 Statistics in specific industries and occupations (base number)
(direction to add from 001-999)

332.1 Banks and Banking

$331.892\ 81 + 332.1 = 331.892\ 813\ 321$

b) *Textile Manufacturing Industry* 338.476 77

338.47 Secondary Industries (goods and services)
(direction to add from 001-999)

677 Textile manufacturing

$338.47 + 677 = 338.476\ 77$

g) *Student Organisation of Department of Inorganic Chemistry* 371.845 46

371.84 Student organisations in specific field
(direction to add from 001-999)

546 Inorganic chemistry

$371.84 + 546 = 371.845\ 46$

h) *Curriculum in Dewey Decimal Classification* 375.025 431

375.01-99 Curriculums and courses of study in specific subjects
(instructions to add to 375 from 010-999)

025.431 Dewey Decimal Classification

$375 + 025.431 = 375.025\ 431$

i) *Clothing Trade* 381.456 87

381.45 Production of secondary industries and services
(direction to add from 001-999)

687 Clothing

$381.45 + 687 = 381.456\ 87$

j) *Motion Picture Photography of Birds* 778.538 598

778.538 Photography of specific subjects
(direction to add from 001-999)

598 Aves (Birds)

$778.538 + 598 = 778.538\ 598$

ii) Examples of combinations of a main class with a part of another main class according to the instructions given under the hosting main class :

a) *Reviews of Braille Books* 028.163

028.16 Review Works for specific kinds of users
(Add to 028.16 the numbers following 011.6 in 011.62 - 011.67)

011.63 Braille books (number following 011.6 is 3)

$028.16 + 3 = 028.163$

- b) *Psychology of royal family children* 155.456 2
- 155.45 Psychology of Exceptional children
(Instruction to Add to it numbers following 371.9 in 371.91 - 371.97)
- 371.962 Royal children (number following 371.9 is 62)
- $155.45 + 62 = 155.456 2$
- c) *Buddhistic Philosophy* 181.043
- 181.04 - .09 Philosophies of specific religions (Oriental)
- 181.0 Oriental philosophies (base number)
(add to it number following 29 in 294 - 299)
- 294.3 Buddhism (number following 29 is 43)
- $181.0 + 43 = 181.043$
- d) *Buddhist Concept of Hell* 294.342 3
- 294.34 Doctrines and practices in Buddhism (base number)
(Add to it numbers following 291 in 291.2-.4)
- 291.23 Eschatology Hell (number following 291 is 23)
- $294.34 + 23 = 294.342 3$
- e) *Wages of Agriculture Labour* 331.204 3
- 331.2042-2049 Wages in specific industries and occupations
- 331.204 Wages for labour (base number)
(Add to it number following 6 in 620-290)
- 630 Agriculture (number following 6 in 630 is 3; zero is ignored)
- $331.204 + 3 = 331.204 3$
- f) *Monopoly in Cosmetic Industry* 338.826 685 5
- 338.826 Monopoly in Extractive, manufacturing, construction industries (base number)
(Add to it number following 6 in 620-290)
- 668.55 Cosmetics (number following 6 is 6855)
- $338.826 + 6855 = 338.826 685 5$
- g) *Wheat Trade* 380.141 311
- 380.141 Trade of Products of agriculture (base number)
(Add to it number following 63 in 633-638)
- 633.11 Wheat (number following 63 is 311)
- $380.141 + 311 = 380.141 311$

h) Etiquette for Men **395.123 2**

395.1 Etiquette (Manners) for specific ages and sexes
(Add to it numbers following 170.202 in 170.2022 - 170.2024)

170.202 232 Ethics of men (number following 170.202 is 232)

$$395.1 + 232 = 395.123 2$$

i) Seasonal Changes in Plants **581.543**

581.5 Ecology of Plants (base number)
(Add to it the numbers following 574.5 in 574.52 - .57)

574.543 Seasonal changes (number following 574.5 is 43)

$$581.5 + 43 = 581.543$$

j) Forest Fires **634.961 8**

634.96 Injuries, diseases, pests, etc. (in Forestry)
(Add to it numbers following 632 in 632.1 - 632.9)

632.18 Fire (number following 632 is 18)

$$634.96 + 18 = 634.961 8$$

iii) Examples of combination of main class with parts of more than one main class in the schedules as per instructions given under the hosting main class:

a) Islamic view of women and family **297.197 834 4**

297.197 Social theology and inter-religious relations and attitudes toward other religions, etc.
(Add to 297.197 numbers following 291.17 in 291.171 - 291.178)

291.178 34 Social structure under religions (number following 291.17 is 834)
(Add to it the numbers following 305 in 305.2 - 305.8)

305.4 Women (number following 305 is 4)

$$297.197 + 834 + 4 = 297.197 834 4$$

b) Wages in Mining of Granites **331.282 235 2**

331.282-.289 Wages in extractive, manufacturing, construction industries

331.28 Base number (instruction to add to it number following 6 in 620 - 690)

622.3 Mining engineering (number following 6 is 223)

622.35-.39 Mining of specific minerals
(Instruction to add to 622.3 numbers following 553 in 553.5 - 553.9)

553.52 Granite (number following 553 is 52)

$$331.28 + 223 + 52 = 331.282 235 2$$

c) Laws dealing with Rice Trade **343.085 131 8**

343.085 Law relating to specific commodities
(Add to it numbers following 380.14 in 380.141 - .145)

380.141 Trade of Agricultural productions (number following 380.14 is 1)
 380.141-.145 Specific products
 (Further instruction to add to 380.14 numbers following 63 in 633-638)
 633.18 Rice (number following 63 is 318)
 $343.085 + 1 + 318 = 343.085\ 131\ 8$

d) *Students club for Indoor games and amusements in Universities* 378.198 479 3

378.196-198 Higher education - Physical plant, health and safety of the students
 (Add to 378.19 the numbers following 371 in 371.6 - .8)
 371.84 Student organisations in specific fields (number following 371 is 84)
 (Further instruction at 371.84 to add 001-999)
 793 Indoor games and amusements
 $378.19 + 84 + 793 = 378.198\ 479\ 3$

e) *A Study of Spiders in Deserts* 595.440 452 652

595.44 *Aranea (Spiders)
 (Asterisk mark referring to foot note where it is stated to 'Add' as instructed under 592-599)
 592 - 599 Specific animals and groups of animals
 04 General principles
 (Instruction to add to it numbers following 591 in 591.1 - 591.8)
 591.52 Specific kinds of environments (number following 591 is 52)
 591.522-.524 Interrelations of organisms and environment and of species to species
 (Instruction to add to 591.52 numbers following 574.52 in 574.522 - .524)
 574.526 52 Desert (number following 574.52 is 652)
 $595.44 + 04 + 52 + 652 = 595.440\ 452\ 652$

f) *Circulatory organs of Fishes* 597.011 6

597 Pisces (Fishes)
 597.01-.08 General principles
 (Instruction to add to 597.0 the numbers following 591 in 591.1 - 591.8)
 591.11-13 Circulation, respiration, nutrition, etc. (number following 591 is 1)
 (Instruction to add to 591 the numbers following 574.1 in 574.11 - 574.13)
 574.116 Organs of Circulation (number following 574.1 is 16)
 $597.0 + 1 + 16 = 597.011\ 6$

g) *Erysipelas in Turkeys* 636.592 089 694 2

636.592 Turkeys
 636.59201-.59208 General principles
 (instruction to add to 636.5920 numbers following 636.0 in 636.01 - 636.08)
 636.089 Veterinary sciences (number following 636.0 is 89)
 (Instruction to add to 636.089 the numbers following 61 in 610 - 619)
 616.942 Erysipelas (number following 61 is 6942)
 $636.5920 + 89 + 6942 = 636.592\ 089\ 694\ 2$

h) *Air-conditioning in Law School Buildings*

697.937 434

- 697.93 Air-conditioning
- 697.935 938 Specific types of buildings
(Instruction to add to 697.93 the numbers following 72 in 725 - 728)
- 727.4 Professional and technical school buildings (number following 72 is 74)
(Instruction to add 001-999)
- 340 Law (Add 34 and ignore last zero)

$$697.93 + 74 + 34 = 697.937 434$$

i) *Effects of social conditions on the Architecture of the National Library Buildings*

727.825 010 3

- 727.82 * General Library (Buildings)
(Instruction to add to it numbers following 027 in 027.1 - 027.8)
- 027.5 Government libraries (National) (number following 027 is 5)
Further direction under 727.82 (then add as instructed under 721 - 729)
- 721 - 729 Architecture
- 0103-0108 Special topics
(Add to 010 numbers following 700.10 in 700.103 - 700.108)
- 700.103 Effects of social conditions and factors on the arts (number following 700.10 is 3)

$$727.82 + 5 + 010 + 3 = 727.825 010 3$$

j) *Chinese Buddhist Bronzes*

731.889 439 2

- 731.8 Iconography
- 731.82-.89 Iconography for specific subjects
(Instruction to add to 731.8 numbers following 704.94 in 704.942 - .949)
- 704.9489 Other religions (number following 704.94 is 89)
(Instruction to add to it numbers following 29 in 292 - 299)
- 294.392 Buddhism (number following 29 is 4392)

$$731.8 + 89 + 4392 = 731.889 439 2$$

iv) **Examples of construction of numbers using general aspects common to many subjects listed under the "Centered Headings" :**

a) *Archaeology of Gospels and Acts*

226.093

- 226 *Gospels and Acts (Asterisk mark referring to foot note 'Add' as instructed under centered heading 222-224)
- 222 - 224
(Instruction to add to 09 numbers following 221.9 in 221.91 - 221.95)
- 221.93 Archaeology (number following 221.9 is 3)

$$226 + 09 + 3 = 226.093$$

b) *Cases in Constitutional Law*

342.026 4

- 342 *Constitutional and Administrative Law
(Asterisk mark referring to foot note 'Add' as instructed under 342 - 347)
- 0264 Cases (extended standard subdivision under centered heading 342 - 347)

$$342 + 0264 = 342.026 4$$

- c) *Cases of Social Laws* 344.026 4
- 344 *Social Law
(Asterisk mark referring to foot note 'Add' as instructed under 342 - 347)
- 0264 Cases (extended standard subdivision under centered heading 342 - 347)
- 344 + 0264 = 344.026 4
- d) *Use of compulsory remedial action against drug addiction* 362.293 561 4
- 362.293 *Law dealing with drug addiction
(Asterisk mark referring to foot note 'Add' as instructed under 362 - 363)
- 5 Social action (under centered heading 362 - 363 with instruction to add to it
numbers following 361 in 361.2 - 361.8)
- 361.614 Compulsory remedial action (number following 361 is 614)
- 362.293 + 5 + 614 = 362.293 561 4
- e) *Public action against occupational and industrial hazards* 363.115 6
- 363.11 *Occupational and industrial hazards
(Asterisk mark referring to footnote 'Add' as instructed under 362 - 363)
- 5 Social action (under centered heading 362 - 363 with instruction to add to it
numbers following 361 in 361.2 - 361.8)
- 361.6 Public action (number following 361 is 6)
- 363.11 + 5 + 6 = 363.115 6
- f) *Courses of study in Social Studies at elementary School level* 372.830 43
- 372.83 *Social studies (elementary school)
(Asterisk mark referring to foot note 'Add' as instructed under 372.3 - .8)
- 043 Courses of study (under 372.3 - .8)
- 372.83 + 043 = 372.830 43
- g) *Respiratory remedies for asthma patients* 616.238 063 6
- 616.238 *Bronchial asthma
(Asterisk mark referring to foot note 'Add' as instructed under 616.1 - .9)
- 062 - 069 Other therapies (under 616.1 - .9)
(Instruction to add to 06 numbers following 615.8 in 615.82 - 615.89)
- 615.836 Respiratory (inhalatory) therapy (number following 615.8 is 36)
- 616.238 + 06 + 36 = 616.238 063 6
- h) *Pest control for Coffee crop* 633.739 9
- 633.73 *Coffee
(Asterisk mark referring to foot note 'Add' as instructed under 633 - 635)
- 9 Injuries, diseases, pests (633 - 635)
(Instruction to add to it numbers following 632 in 632.1 - 632.9)
- 632.9 Pest control (number following 632 is 9)
- 633.73 + 9 + 9 = 633.739 9

i) *Organic farming for banana crop*

634.772 84

634.772

*Banana

(Asterisk mark referring to foot note 'Add' as instructed under 633 - 635)

8

Special cultivation methods

(Instruction to add to it numbers following 631.58 in 631.581 - 587)

631.584

Organic farming (number following 631.58 is 4)

$$634.772 + 8 + 4 = 634.772\ 84$$

j) *Pest control for Carrot crop*

635.139 9

635.13

*Carrots

(Asterisk mark referring to footnote 'Add' as instructed under 633 - 635)

9

Injuries, diseases, pests

(Instruction to add to it numbers following 632 in 632.1 - 632.9)

632.9

Pest control (number following 632 is 9)

$$635.13 + 9 + 9 = 635.139\ 9$$

v) **Use of the notations from an auxiliary table or combination of notation from two different tables with the appropriate class numbers of the schedules :**

You will learn how to construct class numbers using seven auxiliary tables given in Volume-1 of DDC in the units 4-7.

Self Check Exercise-2

Classify the following titles :

- a) *Subject headings for banks and banking*
- b) *Job opportunities in banks*
- c) *Economic aspects of tea*
- d) *Bison hunting*
- e) *High yielding varieties of wheat*
- f) *Migration of birds*
- g) *Paralysis in old age*
- h) *Use of ultramicroscopes in biology*
- i) *Symbolism in the songs of Solomon*
- j) *Landing on Mars*
- k) *Physical therapy for heart diseases*
- l) *Use of fertilizers in Sugar cane growing*
- m) *Longevity of elephants - a scientific study*
- n) *Biomechanics of tortoises*

- Note :
- i) Write your answer in the space given below.
 - ii) Compare your answers with those given at the end of this unit.

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3.7 ASSIGNMENT

1. What are the different kinds of syntheses you find in DDC (19th edition)? Illustrate your answer with suitable examples.
2. What is a base number? How it helps in class number building?

3.8 RECOMMENDED BOOKS

Batty, C.D. : *An introduction to the nineteenth edition of the Dewey Decimal Classification*.
London : Clive Bingley, 1981.

Albany, N.Y. : *Dewey Decimal Classification and Relative Index*. 19th edition.
Edited by Benjamin A Custer, Forest press, 1979.

Albany, N.Y. : *Manual on the use of the Dewey Decimal Classification : 19th edition*.
Forest Press, 1982.

Osborne, Jeanne : *Dewey Decimal Classification - 19th edition: a study manual*.
Littleton, Colo. : Libraries unlimited, 1982.

3.9 GLOSSARY

Base Number : The unvarying portion of a sequence from which digits are taken to form another sequence to form a class number.

Specific Subject : A division of knowledge whose extension and intension are equal to those of its thought content.

Syntheses : Combination of notation representing different subjects or ideas to form a class number.

UNIT-4 : USE OF TABLE 1 STANDARD SUB-DIVISIONS

Contents

- 4.0 Aims and Objectives
- 4.1 Introduction
- 4.2 Identification of Standard sub-divisions
- 4.3 Adding Standard sub-divisions
 - 4.3.1 Adding Standard sub-divisions to a Main class
 - 4.3.2 Adding Standard sub-division to a Division
- 4.4 Variations in the Number of Zeros
 - 4.4.1 Using two zeros
 - 4.4.2 Using three zeros
- 4.5 Extending a Standard sub-division Number
- 4.6 Variations in the meaning of Standard Sub-divisions
- 4.7 Two or More Standard Sub-divisions
- 4.8 When Standard Subdivisions are not used
- 4.9 Summing up
- 4.10 Answers to Self-check Exercises
- 4.11 Assignment
- 4.12 Recommended Books
- 4.13 Glossary

4.0 AIMS AND OBJECTIVES

This Unit aims to acquaint you with Table-1 Standard Sub-divisions (abbreviated as s.s.). This table is frequently used while classifying documents by DDC.

- After studying this Unit you should be able to :
- explain the concept of Standard Sub-divisions in DDC;
 - illustrate the application of Table-1 in number building with examples;
 - identify provisions requiring the use of zero or zeros in the class number; and
 - select between two Standard Sub-divisions if they are needed in a class number.

4.1 INTRODUCTION

According to DDC Standard Sub-divisions table is "A table of notations designating certain frequently recurring forms or methods of treatment applicable to any subject or discipline." The notations may be added as required to any number in the schedule.

Many subjects or disciplines are presented in several forms, in a synopsis or outline, in a periodical form, in tables or formulas. Some subjects may have certain modes of treatment, like 'theory' of a subject, 'technique', 'study and teaching' of a subject. These common forms and modes are designated collectively as 'Standard Sub-divisions'. These numbers can be applied anywhere when warranted and for the use of which there need not be a direction in the Schedules.

These Standard Sub-divisions are enumerated in Table-1 of volume one. These generally consist of two or more digits of which the first is 0 (zero). These may be applied wherever they are appropriate.

Some of the Standard Sub-divisions given in Table-1 are reproduced below. This is not a complete list, for detailed list you have to refer to Table-1 only. Again it may be reminded that these notations are never used alone, and are to be used only in conjunction with the classification schedules.

- 01 Philosophy and theory
 - 012 Classification
 - 015 Scientific Principles
 - 018 Methods
- 02 Miscellany
 - 021 Tabulated and related material
 - 022 Illustrations and models
 - 024 Works for Specific types of Users
 - 025 Directories of Persons and Organisations
 - 027 Patents and Identification Marks
 - 028 Technique, Procedures, Apparatus, Equipment, Materials
- 03 Dictionaries, encyclopaedias, concordances
- 04 Special topics of general applicability
- 05 Serial publications
- 06 Organisations and Management
- 07 Study and Teaching
 - 072 Research
- 08 History and description of the subject among group of persons
- 09 Historical and geographical treatment
 - 092 Persons associated with the subject
 - 093-099 Treatment by specific, continents, countries, localities

In Table-1 these numbers are given preceded by -(dash). This means that they cannot be used individually. The zero preceding the number is a facet indicator, which indicates the transition from subject (schedule) number to non-subject (non-schedule) part of the number in the constructed class number.

4.2 IDENTIFICATION OF STANDARD SUB-DIVISIONS

In the previous unit (Unit-3) you have learnt that ascertaining the specific subject involves analysing the document. After determining the subject proper, you have to identify the terms standing for the standard sub-divisions. Identifying the standard sub-divisions needs some experience. The relative index helps you in this process. Let us try a few examples:

- a) *Philosophy of Science*
- b) *Dictionary of Economics*
- c) *Encyclopedia of Education*
- d) *Journal of Physics*
- e) *Research in Agriculture*

In the above examples you can easily decide and tell 'Science', 'Economics', 'Education', 'Physics' and 'Agriculture' are subjects. We can also say the terms, 'Philosophy', 'dictionary', 'encyclopedia', 'journal' and 'research' are mode of treatment or non-subject terms in relation to above titles. So they are standard sub-divisions.

However, 'philosophy' (100), 'Dictionary' (030), 'Encyclopedia' (030), and 'Journal' 'Serials' (050), are also enumerated as main classes in the Schedules (Volume-2). They are the view points or subject of the documents. At times such confusion arises to the classifiers. However, with a little experience you will be able to separate a standard sub-division from a subject.

Philosophy as a discipline/subject is classified in Schedules (100 Philosophy). However, philosophy of a discipline/subject is to be classified under the concerned discipline/subject and here 'philosophy' becomes its mode of treatment. Hence it is the standard sub-division. Likewise, General Dictionaries, General Serial Publications, General Encyclopedias, are placed as generalia subjects in the Schedules. Dictionaries/Encyclopedia and serials of a subject are standard sub-divisions.

Self-Check Exercise-1

Identify the standard sub-divisions from the following titles:

- a) *Manual of Zoology*
- b) *Bibliography of Documentation*
- c) *Dictionary of Social Sciences*
- d) *Library Journal*
- e) *Techniques of Welding*

- Note: i) Write your answer in the space given below.
ii) Compare answers with those given at the end of this Unit.

4.3 ADDING STANDARD SUB-DIVISION NUMBER

When a title is to be classified the first step is to find what is the specific subject of the document on hand, having decided the subject and its appropriate class, the Classifier should consider what further specification is desirable, whether any standard sub-division is applicable.

Once you identified the Standard Sub-divisions applicable, you have to locate their numbers from the Table-1. The Relative Index will also guide you to locate the standard sub-division number. Adding standard sub-divisions number (from Table-1) to subject number (from Schedules) gives you the class number.

Some examples will give you an idea of how to use the Standard sub-divisions. Below are given five titles and the numbers are also worked out.

- a) *Encyclopedia of Islam*
- b) *Dictionary of Financial Economics*
- c) *Research in Palmistry*
- d) *Study and Teaching of International Relations*
- e) *Journal of Botany*

a) *Encyclopedia of Islam* : The title deals with Islam and the main class is religion (200). While going through the schedules you will come across the number 297 given for Islam. This particular document needs to be separated from other books on Islam because it has a different form and calls for special treatment. In this case the document is presented in an encyclopedic form. Here we find the need to add standard sub-division -03 Encyclopedia. The number then for '*Encyclopedia of Islam*' will be 297.03.

b) *Dictionary of Financial Economics* : The subject of the document is Financial Economics and its number in the Schedules is 332. The book is a dictionary and application of standard sub-division -03 is called for. The class number for *Dictionary of Financial Economics* will be 332.03.

c) *Research in Palmistry* : The number given for Palmistry in Schedules is 133.6. Research is a standard sub-division and its number in Table-1 is -072. By adding standard sub-division to the subject number, we get the complete class number 133.607 2.

d) *Study and Teaching of International Relations* : The subject of the book is International Relations 327. Study and Teaching is enumerated as a standard sub-division in Table-1 and given the number -07. The class number for the title is 327.07.

e) *Journal of Botany* : Botany is the specific subject of the document and its number in the schedules is 581. The term used for Journal in standard sub-divisions is Serial and its number is -05. The class number for *Journal of Botany* is 581.05.

Self-Check Exercise-2

Classify the following Titles.

- a) *Encyclopedia of Macro Economics*
- b) *Dictionary of Biology*
- c) *Research in Hydraulic Engineering*
- d) *Journal of Physical Anthropology*
- e) *Philosophy and theory of Biotechnology*

Note : i) Write your answers in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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4.3.1 ADDING STANDARD SUB-DIVISION TO A MAIN CLA

We explained you earlier that standard sub-division consists of at least two digits, of which the initial digit is a zero. This zero is a facet indicator. You cannot add a standard sub-division number directly to a main class. If you add so it may lead you to an incorrect class number.

For example,

Encyclopedia of History

900 History

-03 Encyclopedia (s.s. Table-1)

900 + 03 = 900.03 Encyclopedia of History

It is not a correct number. Remember, the base number for History is only 9 and it has been made 900 to make it a three digit minimum. Therefore, you have to drop two zeros from the main class and then add -03 (s.s.) to 9. So the class number for Encyclopedia of History will be 903. So also with the other Main Classes.

a) *Dictionary of Philosophy*

$$100 + 03 = 1 + 03 = 103$$

b) *Encyclopedia of Science*

$$500 + 03 = 5 + 03 = 503$$

c) *Study and Teaching of Languages*

$$400 + 07 = 4 + 07 = 407$$

d) *Journal of Technology*

$$600 + 05 = 6 + 05 = 605$$

e) *Organisation and Management of Fine and Decorative Arts*

$$700 + 06 = 7 + 06 = 706$$

f) *Study and Teaching of Literature*

$$800 + 07 = 8 + 07 = 807$$

4.3.2 ADDING STANDARD SUB-DIVISION TO A DIVISION NUMBER

The second degree of sub-division in the DDC is represented by the second digit in the notation, and the third digit is filled by a zero. For example, 620. While adding the standard sub-division, the final zero is to be dropped.

For example :

Journal of Psychology.

The subject of the document is Psychology and the number for it is 150. This is not a book, it is a serial publication which is published at regular intervals and hence requires different treatment. Applications of s.s. -05 is called for.

It is found from our experience that students coin the number for the above title as 150.05. This is not correct because the base number for Psychology is 15 and not 150. Here the zero is added to make three digits, but when some other expansion of the number is called for, it is done with the base number 15. Now add s.s. -05 to 15. The number becomes

$$15 + 05 = 1505 = 150.5$$

After adding standard sub-division we have realigned the digits in the final number putting the dot after the third digit.

Similarly,

a) *Encyclopedia of Earth Sciences*

$$550 + 03 = 55 + 03 = 550.3$$

b) *Symbols and Abbreviations in Chemistry*

$$540 + 0148 = 54 + 0148 = 540.148$$

c) *Formulas in Statistics*

$$310 + 0212 = 31 + 0212 = 310.212$$

d) *Study and Teaching of Zoological Sciences*

$$590 + 07 = 59 + 07 = 590.7$$

e) *History of Astronomy in 19th Century*

$$520 + 09034 = 52 + 09034 = 520.9034$$

f) *History of Music*

$$780 + 09 = 78 + 09 = 780.9$$

g) *Research in Medicine*

$$610 + 072 = 61 + 072 = 610.72$$

h) *Journal of Earth Sciences*

$$550 + 05 = 55 + 05 = 550.5$$

i) *Statistical Organisations*

$$310 + 06 = 31 + 06 = 310.6$$

Self-check Exercise - 3

Build Class Numbers for the following titles.

- a) *Organisations in the Field of Astronomy*
- b) *Journal on Physics*
- c) *History of Engineering*
- d) *Illustrations in Zoological Sciences*
- e) *Models in Chemistry*
- f) *Medicine in 18th Century*
- g) *Research in Library Science*

Note: i) Write your answer in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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4.4 VARIATIONS IN THE NUMBER OF ZEROS

In Section 4.1 we have noted that standard sub-divisions generally consist of two or more digits of which the first is zero. To apply the standard sub-division to a number derived from the Schedules, the zero and the following digit are to be used together. This is the general rule, but there are several exceptions.

In some cases the zero has already been used in the schedules to divide a given subject and in such cases to use the standard sub-division you have to employ two or more zeros instead of one. There is no confusion in this regard because in all such cases directions are given in the schedules whether you have to use two or more zeros to apply the standard sub-division.

4.4.1 USING TWO ZEROS

Under many class numbers you find instructions to use two zeros. This is done through a patterned example. For example,

Encyclopedia of Animal Husbandry

The Class number for Animal Husbandry is 636. Under this class number we find the direct instruction :

Use 636.001 - 636.009 for Standard Sub-divisions.

This means a pattern has been given instructing us to use the standard sub-division with two zeros. Hence our number for encyclopedia will be -003 and thus class number will be

$$636 + 003 = 636.003$$

Similarly,

a) *Research on Pisces*

$$597 + 0072 = 507.0072$$

b) *Dictionary of Physics*

The core subject here is 530 Physics, and 'dictionary' is a standard sub-division. Going to the Schedules under 530 we have enumerations:

530.01 Philosophy and theory .

530.02 Miscellany

530.03 - .09 Standard Sub-divisions

It has shown us the pattern of adding the s.s. It simply means that s.s. is to be added to 530 as such without dropping the zero in 530. In other words, the base number for Physics is 53, but a zero has been used for the division of the subject. Hence, the class for *Dictionary of Physics* will be

$$530 + 03 = 530.03$$

c) *Dictionary of Political Science*

$$320 + 03 = 320.03$$

d) *Journal of Physics*

$$530 + 05 = 530.05$$

e) *History of Political Science*

$$320 + 09 = 320.09$$

4.4.2 USING THREE ZEROS

In some cases three zeros have to be used for adding standard sub-divisions. Here further subject divisions are done generally with two zeros. Hence you have to check the Schedules before applying the standard sub-division number, whether there is any pattern or specific instruction. For example;

351	Central Government
351.0001	Philosophy and theory of Central Governments
351.0002 - .0003	Standard Sub-divisions
351.0005	Serial Publications
351.0006	Reports
351.0007 - .0009	Standard Subdivisions

From the above pattern it is obvious that s.s. in this Class is to be added with three zeros.

Similarly,

a) <i>Study and Teaching the subject of Central Government</i>	351.000 7
b) <i>Journal of Local Government</i>	351.000 5
c) <i>An encyclopaedia on the history of Eastern Europe</i>	947.000 3
d) <i>Encyclopedia of Pediatrics</i>	618.920 003

Self check Exercise - 4

Build Class numbers for the following titles :

- Synopses of Organic Chemistry*
- Specifications in Production Economics*
- Dictionary of Criminal Law*
- Philosophy and theory of Land Economics*
- The Mac.Donald Encyclopaedia of Dogs*
- Study and Teaching of the History of Eastern Europe*
- Research in the history of Eastern Europe*
- Study and Teaching of Law*
- Dictionary of Human diseases*
- Biography of Political Thinkers*

Note : i) Write your answer in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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4.5 EXTENDING A STANDARD SUB-DIVISION NUMBER

Some of the s.s. can further be extended with an 'add to' instruction. Standard Sub-division numbers are extended by a number either from the Schedules or any of the Tables 2-7. In such cases, clear instructions are given at that particular place in Table-1 how to extend.

i) Extending s.s. from a segment of Schedule number :

Let us take a case of extending s.s. from a segment of the number from the Schedules.

-015 Scientific Principles

Under this entry there is an instruction to add-to-the base -015 the number following 5 in 510-590.

Let our topic be

a) *Optical principles of coordinate and post-coordinate indexing*

025.484 Coordinating and post-coordinate Indexing

-015 Scientific Principles (Table-1)

-01535 Optical Principles (015 + 35)
(35 taken from 535 Optics)

$025.484 + 01535 = 025.484\ 015\ 35$

b) *Mathematical Principles in Logic*

160 Logic

-015 Scientific Principles

-0151 Mathematical Principles (015 + 1)
(510 is Mathematics)

ii) Extending SS with number from Tables 2-7 :

The numbers in the standard sub-divisions can also be extended with an 'Add to instruction from the other tables (2-7). See the following entries;

-023 The subject as a profession, occupation hobby
Add 'Areas' notation 1-9 from Table-2.

-025 Directories of Persons and Organisations.
Add 'Areas' notation 1-9 from Table-2.

032-039 By Language (Dictionaries, Encyclopedias)
Add 'Languages' notation 2-9 from Table-6

089 Treatment among specific r.e.n. groups
Add 'r.e.n. groups' notation 01-99 from Table-5

088 Treatment among groups of specific kinds of persons
Add 'persons' notation 04-99 from Table-7

(Examples dealing with the use of s.s. and Tables 2-7 will be illustrated in the Units 5-7)

4.6 VARIATIONS IN THE MEANING OF STANDARD SUB-DIVISIONS

As noted earlier Standard sub-divisions⁹ in the Schedules stand for a special kind of patterned repetition. But you find exceptions at certain places in the Schedules. Standard sub-divisions change their meaning when applied locally to a class. Observe the following sub-divisions in the Schedules.

150	Psychology
150.1	Philosophy and Theory
150.193	Functionalism
150.194	Reductionalism
150.195	Psycho analytic Systems
370	Education
370.1	Philosophy, Theories, Generalities
370.112	Humanistic Education (Liberal Education)
370.113	Vocational Education
370.116	Education for Creation
370.7	Study & Teaching
370.72	Teachers' Conferences, Institutes Workshops
370.78	Educational Research
508	Travel & Surveys
708	Galleries, Museums and Art Collections
801	Philosophy & Theory (Literature)
801.3	Value, influence and effect
907	Study & Teaching of General History
907.9	Historiography

You find many Class Numbers already synthesized with the standard sub-divisions. These ready-made numbers are authoritative numbers.

Another deviation is with regard to the standard sub-division -04 General Special. It has also different meanings under each class. In fact it is not s.s. in the real sense. And it is not to be used by classifiers. The classificationists make use of them depending upon the needs of that class. See the following sub-divisions in the Schedules.

010	Bibliography
010.4	Special topics of General Applicability
010.42	Analytical (Descriptive) Bibliography
010.44	Systematic Bibliography
170	Ethics
170.4	Special topics of General Applicability
170.42	Critical Ethics (Metaethics)
170.44	Normative Ethics

200	Religion (201-209 s.s. of Christianity)
204	Special topics of General Applicability
204.5	Christian mythology
400	Languages
404	Special topics of General Applicability (Languages)
404.2	Bilingualism
600	Technology (Applied Sciences)
604	General Technologies
604.2	Technical Drawing
604.6	Waste Technology
700	The Arts
704	Special topics of General Applicability in fine and decorative arts
704.03	Treatment among r, e, n groups
704.04 - .87	Treatment among other groups of special kinds of persons

Self-check Exercise - 5

- a) Note the variations in meanings of s.s. as applied to 801 Philosophy and Theory of Literature
- b) Note the different meanings of the s.s. -04 special topics of general applicability under 904.

Note : i) Write your answer in the space given below.
 ii) Compare your answers with those given at the end of this Unit.

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4.7 CO-OCCURRENCE OF TWO OR MORE STANDARD SUB-DIVISIONS

You find that the titles of some documents may include two or more standard sub-divisions. Then you get doubt, whether both can be used, if not which one to be used. The editors of the DDC in the Introduction (Volume One) recommend that the classifiers not to add one standard sub-division to another standard sub-division unless there are special instructions to do so.

For example,

Encyclopaedia of Organisations in Applied Psychology.

Here "Encyclopedia (-03)" and "Organisation (-06)" both are s.s. In such cases we have to follow "Table of precedence" given at the beginning of Table-1 standard sub-divisions. Therefore, only one of them is to be added on preferential basis and the other is ignored. As per preferential table, "06" is to be given preference over "03". Therefore, the correct class number is 158.06 and not 158.03.

Looking at the Table of Precedence we observe that the s.s. are preferred in the following general order:

- Methods
- View-points
- Internal forms
- External forms

Let us try some more examples:

- a) *A Journal of Economic Philosophy*

Here the core subject is Economics 330

- Philosophy and theory -01
- Journal (Serial) -05

In the table of precedence -01 comes earlier to -05; Hence we will use -01 and ignore -05. Hence our class number will be

$$330 + 01 = 330.01$$

Similarly,

- b) *Encyclopaedia of Engineering Associations*

The core subject of this title is "Engineering" and its class number is 620.

The two standard subdivisions are used :

- Encyclopaedia -03
- Associations -06

As per the 'Table of Precedence' -06 Associations is to be preferred over -03. The pattern of adding s.s. here is 620.005 - .008, hence our class number will be

$$620 + 006 = 620.006$$

Self-check Exercise - 6

Provide class numbers for the following titles :

- a) *A Journal on Study and Teaching of Economics*
- b) *A Journal on Study and Teaching of Chemistry*
- c) *Encyclopaedia of Medical Associations*
- d) *A Directory of Political Science Schools*
- e) *A Directory of Library Schools*
- f) *A Journal of Research in Psychology*
- g) *A Journal of Reviews in Chemistry*
- h) *Statistics of Library Organisations*
- i) *Illustration Dictionary of Physics*
- j) *Statistical Models in Chemistry*

- Note :
- i) Write your answer in the space given below.
 - ii) Compare your answers with those given at the end of this Unit.

- c) *Research Methods*
Class Number is 001.42 (not 001.42018).
- d) *Critical Philosophy* 142
- e) *Encyclopedia Britannica* 032
- f) *India Today (a general periodical)* 052

Self-check Exercise - 7

Provide class number to the following subjects:

- a) *Dictionary of German Language*
- b) *General Statistics of Europe*
- c) *History of UK*
- d) *Illustrated Weekly of India*
- e) *Linguistic Philosophies*

Note : i) Write your answer in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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4.9 SUMMING UP

In this Unit we have introduced you the concept of Standard sub-divisions, their identification and use. Standard sub-divisions are common recurring non-sub-divisions and they are listed in Table-1. The notations of s.s. are applicable to any class number otherwise instructed. However, while adding we should be careful about the number of zeros to be added. Classifiers need to check the instructions given at the class numbers in the schedules. We have also described the cases, where standard sub-divisions change their meaning and also to class numbers where there is no need to add standard sub-divisions if the view point itself is a subject.

4.10 MODEL ANSWERS

- 1. a) Manual
- b) Bibliography
- c) Dictionary
- d) Journal
- e) Technique
- 2. a) 339.03
- b) 574.03
- c) 627.072
- d) 573.05
- e) 620.801

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Class No: 028
L.T.E

3. a) 520.6
b) 530.5
c) 620.9
d) 590.22
e) 540.22
f) 610.903 3
g) 020.72

4. a) 547.002 02
b) 338.005
c) 345.003
d) 333.001
e) 636.700 3
f) 947.000 7
g) 927.000 72
h) 340.07
i) 616.003
j) 320.092

5. a) 801.9 Nature and Character (Literature)
801.92 Psychology
801.93 Aesthetics
801.95 Criticism
- b) 904 Collected accounts of specific events (History)
904.5 Events of Material Origin
904.07 Events induced by human activity

6. a) 330.07
b) 540.7
c) 610.6
d) 320.071
e) 020.71
f) 150.72
g) 540.76
h) 020.6
i) 530.03
j) 540.22

7. a) 433
b) 314
c) 941
d) 052
e) 149.94

4.11 ASSIGNMENTS

1. Why variations occur in the number of zeros while using standard sub-divisions? Illustrate your answer with examples.
2. How a standard sub-division number can be extended? Answer with suitable examples.

4.12 RECOMMENDED BOOKS

Dewey Decimal Classification 3 V. 19th ed. Edited by Benjamin A. Custer. Albany (N.Y.) : Forest Press, 1979. Vol. I Introduction. p.xxi - lxxv.

Dhyani, Pushpa. *Dhyani's Guide to Dewey Decimal Classification*. New Delhi : Metropolitan, 1985.

Library Classification Practice, edited by G.S. Rao. New Delhi : IGNOU, 1989 (BLS-3p; Unit-6)

4.13 GLOSSARY

- Non-subject aspects :** Aspects other than the core subject of a document.
- Standard sub-division:** Certain frequently recurring forms, denoting internal or external form of a document. These are generally non-subject aspects.
- Table of Precedence :** A table given in DDC prescribing which standard sub-division is to be taken in the case of the title of a document involves two or more standard sub-divisions.

UNIT-5 : USE OF TABLE-2 : AREAS

Contents

- 5.0 Aims and Objectives
- 5.1 Introduction
- 5.2 Division of the Areas - Table
 - 5.2.1 Areas, Regions, Places in general
 - 5.2.2 Persons regardless of place
 - 5.2.3 Ancient World
 - 5.2.4 Modern World
- 5.3 How to use Area Notation
 - 5.3.1 Area Number already a part of the Class Number
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 - 5.3.3 Area Number on 'Add-to' Instruction
- 5.4 Adding Two Area Numbers
- 5.5 Area Number Interposed between two Subject Facets
- 5.6 Extending a Number from Table 2 by Another Number from Table-2 itself
- 5.7 Adding Area Notation to a Standard Sub-Division other than -09
- 5.8 Using Standard subdivisions after an Area Number
- 5.9 Summing up
- 5.10 Answers to Self-check Exercises
- 5.11 Assignment
- 5.12 Recommended Books
- 5.13 Glossary

5.0 AIMS AND OBJECTIVES

This Unit will help you to understand the use of Table 2 : Areas. This Table is frequently used in number-building.

After studying this Unit you should be able to:

- describe the basic structure and coverage of Table-2: Areas;
- build a class number by adding an area number from Table-2 to the subject number in the Schedules; and
- locate numbers in the schedules where the subjects are already classified on the basis of geographical characteristics.

5.1 INTRODUCTION

DDC defines Areas Table as 'a table of notations designating geographical areas. Applied to other notation in the schedules and tables through use of add notes.' Table-2 Areas which specifies the area numbers, occupies the largest part of DDC Volume-One.

We noted earlier (Unit-1) that there are seven auxiliary tables and Table-2 provides notation for Areas. Like standard sub-divisions, these Area numbers are also should not be used independently. In the Schedules you are usually directed how to use these numbers.

5.2 DIVISION OF THE AREAS

At the beginning of the Table-1 : Areas you find a summary of the main divisions of the areas used by Dewey. The summary is given below :

- 1 Areas, regions, places in general
- 2 Persons regardless of area, region, place
- 3 Ancient world
- 4 Europe, Western Europe
- 5 Asia, Orient, Far East
- 6 Africa
- 7 North America
- 8 South America
- 9 Other parts of World and extraterrestrial worlds, Pacific Ocean Islands (Oceania)

5.2.1 AREAS, REGIONS, PLACES IN GENERAL

Dewey worked out the 'Areas, regions, places in general' on the following lines:

- 11 Zones - like Frigid Zone, Torrid Zone (-11 to -13)
- 14 Land Forms - like continental shelves, islands
- 15 Regions by type of vegetation - like Forests, Grass lands, Deserts
- 16 Regions covered by Air and water - like Atmosphere, ocean and seas
- 17 Socio-economic regions : under this category many regions are given like
 - 171 by political orientation - nonaligned, communist bloc
 - 172 by economic - developed countries, developing countries
 - 173 by population concentration of urban regions, rural areas
 - 174 region by r.e.n. groups (social)
 - 175 by language - English speaking countries, French speaking countries
 - 176 by religion - Islamic States, Christian predominates
- 18 Other kinds of terrestrial regions - like Eastern hemisphere, Western hemisphere
- 19 Space

5.2.2 PERSONS REGARDLESS OF AREA, REGION, PLACE

The divisions under this heading are further divided on the following lines.

- 2 Persons regardless of area, region, place
 - 22 Collected
 - 24 Individual
 - 26 Case histories

These divisions are used to classify the works dealing with description and critical appraisal of work, biography, autobiography, diaries, reminiscences, correspondence of persons associated with a subject.

For example :

Elementary Educators 372.92

372.9 Historical and Geographical Treatment of Elementary Education

.91 - .99 Geographical Treatment

Add areas notation 1-9 from Table-2 to base number 372.9

-2 Persons regardless of areas, regions, places (Table-2)

372.9 + 2 = 372.92 Elementary educators.

Similarly,

<i>Biography of Famous Librarians</i>	027.022
027	General Libraries
027.01 - .09	Geographical Treatment Add areas notation -1-9 from Table-2 to base number 027.0
22	Collected (persons regardless of area, region, place)

5.2.3 ANCIENT WORLD

The Arabic numeral 3 is used for ancient world. The divisions under this heading are as follows:

- 31 China
- 32 Egypt
- 33 Palestine
- 34 India
- 35 Mesopotamia and Iranian Plateau
- 36 Europe north and west of Italian Peninsula
- 37 Italian Peninsula and adjacent territories
- 38 Greece
- 39 Other parts of ancient world

The "Class here" note directs us to classify documents dealing with a specific part of ancient world not provided for here in -4 -9. It is optional to class specific parts of the ancient world in -4 -9. But we prefer in -3 Ancient World. For example.

<i>Ancient History of India</i>	934
<i>History of Roman Empire</i>	937

5.2.4 MODERN WORLD, EXTRATERRESTRIAL WORLDS

The Arabic numerals -4 -9 have been used to designate different continents of the modern world and extraterrestrial worlds. The following is the basis of division:

- 4 Europe, Western Europe
- 5 Asia, Orient, Far East
- 6 Africa
- 7 North America
- 8 South America
- 9 Other parts of the world and extraterrestrial words. Pacific Ocean Islands (Oceania).

Each digit has been further divided into countries or regions. We will illustrate this process of division with '5 Asia, Orient, Far East.'

- 5 Asia, Orient, Far East
 - 51 China and adjacent areas
 - 52 Japan and adjacent Islands
 - 53 Arabian Peninsula and adjacent areas
 - 54 South Asia, India
 - 55 Iran (Persia)
 - 56 Middle East (Near East)
 - 57 Siberia (Asiatic-Russia)
 - 58 Central Asia
 - 59 Southeast Asia

Each of the above country, region has further been divided into States or jurisdictions. For example :

- 54 South Asia, India
- 541 North eastern India
- 542 Uttar Pradesh
- 543 Madhya Pradesh
- 544 Rajasthan
- 545 Punjab region of India
- 546 Jammu and Kashmir
- 547 Western India
- 548 Southern India
- 549 Other Jurisdictions

Each of the above States or jurisdictions has been further divided into smaller Units. For example:

- 548 Southern India
- 5481 Laccadive, Minicoy and Amindivi Islands (Lakshadweep)
- 5482 Tamilnadu (formerly Madras)
- 5483 Kerala
- 5484 Andhra Pradesh
- 5486 Pondicherry
- 5487 Karnataka (formerly Mysore)
- 5488 Andaman and Nicobar Islands

5.3 HOW TO USE AREA NOTATION

You have observed that the Areas notation in Table-2 start with a - (dash). It signifies that the number to be attached to a class number taken from the schedules. While attaching the numbers from the Tables the dash is to be omitted.

There are three methods of using Area notation--

- i) Area number already a part of the Class Number
- ii) Adding an Area number through 'Add to' instruction
- iii) Adding an Area number through Standard sub-division -09

5.3.1 AREA NUMBER ALREADY A PART OF THE CLASS NUMBER

Area divisions form a part of the subject in History, Geography, Statistics, etc. In such cases, the subject itself is divided geographically and organised.

Observe the basis of division in the main classes -

- 270 Church History
- 31 Statistics
- 55 Earth Sciences
- 9 History, and
- 91 Geography :

- 270 History & Geography of Church
 - 274 Christian Church in Europe (4 Europe in Table-2)
 - 275 Christian Church in Asia (5 Asia in Table-2)
 - 276 Christian Church in Africa (6 Africa in Table-2)
 - 277 Christian Church in North America (7 North America in Table-2)
 - 278 Christian Church in South America (8 South America in Table-2)
 - 279 Christian Church in Other Parts of the World (9 Others parts of the World in Table-2)

Similarly,

- 310 General Statistics
 - 314 General statistics of Europe
 - 315 General statistics of Asia
 - 316 General statistics of Africa
 - 317 General statistics of North America
 - 318 General statistics of South America
- 550 Sciences of Earth (Geology)
 - 554 Treatment in Europe
 - 555 Treatment in Asia
 - 556 Treatment in Africa
 - 557 Treatment in North America
 - 558 Treatment in South America
- 910 Geography and Travel
 - 914 Geography of and Travel in Europe
 - 915 Geography of and Travel in Asia
 - 916 Geography of and Travel in Africa
 - 917 Geography of and Travel in North America
 - 918 Geography of and Travel in South America
- 930 History of Ancient World
- 940 History of Europe
- 950 General History of Asia
- 960 General History of Africa
- 970 General History of North America
- 980 General History of South America

The above divisions are based on the Areas notation given in Table-2. If you compare the last digits of the above class numbers with those of the divisions in Table-2 Areas, you find them same.

Only in the case of main class History the divisions have been further carried to the level of country, but in other cases the divisions were restricted to the level of continents. In all these cases the division of such number can further be carried forward as in Table-2 Areas. For this purpose, 'Add to' instructions are provided under concerned entries.

For example at 930 - 990 you find the following instruction:

Add "Areas" notation 3 - 9 from Table-2 to base number -9.

- 950 History of Asia, Orient Far East
- 954 History of South Asia, India
 - 954.1 History of Northern India
 - 954.8 History of Southern India
 - 954.84 History of Andhra Pradesh

Similarly,

- 270 Historical and Geographical treatment of organised Christian Church
- 274-279 Treatment by continent, country, locality
- 274 Christian Church in Europe
 - 274.2 Christian Church in England
 - 274.21 Christian Church in Greater London
 - 274.213 Christian Church in West London
 - 274.2132 Christian Church in Westminster

Let us work out some examples.

a) *General Statistics of Kerala*

$$31 + 5483 = 315.483$$

b) *Geography and Travel in Japan*

$$91 + 52 = 915.2$$

c) *A Statistical Account of Egypt*

$$31 + 62 = 316.2$$

d) *Christian Church in New York City*

$$27 + 7471 = 277.471$$

e) *A Geological Study of Tibet*

$$55 + 515 = 555.15$$

f) *Rajasthan - A Historical Sketch*

$$9 + 544 = 954.4$$

Self-check Exercise - 1

Classify the following titles :

- a) *History of China*
- b) *Emergence of Arunachal Pradesh*
- c) *General Statistics of France*
- d) *Africa in Modern History*
- e) *Geology of Mexico*

Note :
i) Write your answer in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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5.3.2 ADDING AREA NUMBER ON "ADD-TO" INSTRUCTION

You find at several places in the schedules an "Add-to" instruction given. This instruction shows how an areas notation is to be used under that Class Number. Such instructions are found in any of the following ways:

- i) Add "Areas" notation 1-9 from Table 2 to base number ... ; or
- ii) Add "Areas" notation 3-9 from Table 2 to base number ... ; or
- iii) Add "Areas" notation 4-9 from Table 2 to base number ...

Let us try some examples under each of these modes:

i) **Add "Areas" notation 1-9 from Table-2:** Under this instruction you can able to add any number from 1-9 from Table-2.

For example:

a) *General Libraries in India*

The core subject of the document is General Libraries. Its class number is 027.

027.01 - .09 Geographical treatment
Add "Areas" notation 1-9 from Table-2 to base number 027.0

54 India (Table-2)

027.0 + 54 = 027.054

027.054 Stands for "General Libraries in India".

Similarly,

b) *Unemployment in India*

331.137 Unemployment

331.13791 - .13799 Geographical Treatment
Add "Areas" notation 1-9 from Table-2 to base number 331.1379

331.1379 + 54 (Table-2) = 331.137 954

c) *Foreign Policy of India*

327 International Relations

327.3 - .9 Foreign Policies of and foreign relations between specific nations
Add 'Areas' notation 3-9 from Table-2 to base number 327.

327 + 54 (Table-2) = 327.54

ii) **Add 'Areas' notation 3-9 from Table-2:** This instruction restricts us to use areas notation 3-9 (Ancient and Modern World) only from Table-2.

For example:

- a) *Emigration from India* 325.254
- 325.23 - .29 Emigration from specific continents, countries, localities
Add "Areas" notation 3-9 from Table-2 to base number 325.2
- 54 India (Table-2)
- $325.2 + 54 = 325.254$

Similarly,

- b) *British Cartoons* 741.594 1
- 741.59 Cartoons, Caricatures, Comics
- 741.593 - .599 Treatment by specific continents countries, localities
- 41 Great Britain (Table-2)
- $741.59 + 41 = 741.594 1$

iii) **Add 'Areas' notation 4-9 from Table-2:** This instruction further restricts us to use areas notation 4-9 (modern World) from Table-2.

For example :

- a) *Dispensatories in Korea* 615.125 19
- 615.12 Dispensatories
Add 'Areas' notation 4-9 from Table-2 to base number 615.12
- 519 Korea (Table-2)
- $615.12 + 519 = 615.125 19$
- b) *Methodist Churches in England* 287.544 2
- 287.5 Methodist Churches in British Isles.
- 287.54 Treatment by Central Locality.
Add 'Areas' notation 41-42 from Table-2 to base number 287.5
- 42 England (Table-2)
- $287.54 + 42 = 287.544 2$

Self-check Exercise - 2

Assign Class Numbers to the following titles:

- General Libraries in Pennsylvania*
- Economic situation and conditions in Pakistan*
- Foreign Policy of USA*
- Wages in China*
- Economic policies of United Kingdom*
- State Taxes in United States*
- Study clubs in India*
- Political campaigns in Japan*

- Note : i) Write your answer in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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5.3.3 ADDING AREA NUMBER THROUGH STANDARD SUB-DIVISION (-09)

At some class numbers you find no instruction to add areas notation. In such cases you have to take help of -09 standard sub-divisions. In other words 'Areas' may be added to any class number in the Schedules through standard sub-division -09 even if no instruction for the use of 'Areas' is given by DDC. In Table-1, standard sub-division -09 stands for Historical and Geographical treatment.

- 091 Treatment by area, regions, places in general
Add 'Areas' notation from Table-2 to base number -09
- 093-099 Treatment by specific continents, countries, localities, extraterrestrial worlds.
Add 'Areas' notation 3-9 from Table-2 to base number -09

It means that the Area numbers covered by 1 or 3-9 may be added to 09. Since Standard sub-division can be added to any class number in the schedules, so through -09 (ss) any Area number may be added to any class number without any difficulty.

Let us try a few titles using this provision:

a) *Central Banks in France.*

322.11 Central Banks
Under this entry, there is no provision for its geographical treatment.
So we can use Standard Sub-division -09 (Table-1)

093-099 Treatment by specific continents, countries, localities
Add 'Areas' notation 3-9 from Table-2 to base number ... 09

44 France (Table-2)

$$322.11 + 09 + 44 = 322.110 944$$

b) *Military Science in India*

355 Military art and science
355.009 Historical and Geographical Treatment (See extra 'zero')

54 India (Table-2)

$$355 + 009 + 54 = 355.009 54$$

Self-check Exercise - 3

Build Class Number for the following titles with the help of Areas table.

- a) *Women Workers in India*
- b) *Christian religious Congregations in India*
- c) *Works on Parapsychology in India*
- d) *Public Worship in Roman Catholic Churches in India*
- e) *Agricultural extension work in Australia*
- f) *Men customers in Punjab*
- g) *Civil rights in Communist Countries*
- h) *Standard of living in rural areas*
- i) *Trade Unions in France*
- j) *Political rights in India*
- k) *Textile Production in Korea*

- Note: i) Write your answer in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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5.4 ADDING TWO AREA NUMBERS

DDC has provided provision for using two Area Numbers together under certain class numbers. Such instances may occur in the case of documents dealing with foreign trade, international relations, treaties, emigrations from one region / country to another region / country etc. Usually the two Area numbers are connected by a zero. For example,

- a) *Foreign relations between France and UK*
 - 327 International Relations
 - 327.3 - 9 Foreign Policies of and Foreign relations between specific nations
 Add 'Areas notation' 3-9 from Table-2 to base number 327
 - 44 France (Table-2)

327.44	Foreign Policy of France Further instructions at 327.3 - .9 says that for foreign relations between that nation and another nation, region, area, place, add 0 (zero) and to the result add 'Area notation' 1-9 from Table-2.
327.440 41	Foreign Relations between France and UK
41	UK (Table-2)

Priority : The instruction further gives option for priority of Area notation. Give priority in notation to the nation emphasized. If the emphasis is equal, give priority to the one coming first in the sequence. In our example, emphasis is equal for both the countries. UK (-41) is coming first in the sequence of Area numbers. Hence our class number would be 327.410 44.

b) *Foreign Relations between UK and USA*

327.3 - .9	Foreign Relations between specific nations
41	UK (Table-2)
0	Connecting digit (as per instructions)
73	USA (Table-2)
327.410 73	Foreign relations between UK and USA

c) *Trade between India and France*

382	International Commerce
382.09	Historical and Geographical treatment Add 'Areas' notation 1-9 from Table-2 to base number 382.09
54	India (Table-2)
0	Connecting digit (as per instruction)
44	France (Table-2)
$382.09 + 54 + 0 + 44 = 382.095 404 4$	

d) *Trade relations between India and Western bloc*

382.09	Historical & geographical treatment of Trade (International commerce)
54	India (Table-2)
0	Connecting digit
1713	Western bloc (Table-2)
$382.09 + 54 + 0 + 1713 = 382.095 401 713$	

e) *British economic aid to India*

338.911 - 919	International Assistance (Aid) by Specific jurisdictions and group of jurisdiction The rule here is
338.91 (Base Number) + Donor country (Table-2) + 0 + Country receiving aid (Table-2)	
$338.91 + 41 + 0 + 54 = 338.914 105 4$	

f) *American economic aid to Pakistan*

338.91	International assistance (Aid)
73	USA (Table-2)
0	Connecting digit
5491	Pakistan (Table-2)

$338.91 + 73 + 0\ 5491 = 338.917\ 305\ 491$

g) *Emigration from India to USA*

325.2	Emigration
325.23 - .29	Emigration from specific continents, countries and localities
54	India (Table-2)
325.254	Emigration from India
09	Connecting digit (as instructed)
73	USA (Table-2)

$325.2 + 54 + 09 + 73 = 325.254\ 097\ 3$

Please note that before adding the second country you have to add 09 as directed under the rules.

h) *Emigration from Italy to New York City*

325.2	Emigration (base number)
45	Italy (Table-2)
09	Connecting digits (as instructed)
747	New York (Table-2)

$325.2 + 45 + 09 + 747 = 325.245\ 097\ 47$

Self-check Exercise - 4

Classify following titles involving two areas:

- Trade agreement between France and Australia*
- Trade between United States and Australia*
- Foreign relations between Japan and Great Britain*
- Foreign relations between India and USA*
- Trade Agreement between Japan and India*
- Treaties between India and United Kingdom*
- Emigration from Asia to Developed Countries of the World*
- US Economic Aid to Kuwait*
- Exchange rate of currencies between India and Iraq*
- Immigrant workers from China in California*

- Note: i) Write your answer in the space given below.
ii) Compare your answers with those given at the end of this Unit.

For example

Criminal procedure in Australia 345.940 5
345 Criminal Law
94 Australia (Table-2)
05 General criminal procedure (Sub-topic under 345 Criminal Law)
 $345 + 94 + 05 = 345.940 5$

Option-B:

At 342 - 349 an instruction is provided to arrange the sub-divisions of Law according to jurisdiction. To accomplish this an instruction is provided to add 'Areas' notation 3-9 from Table-2 to base number 34.

349.4 Law of Australia (94 Australia Table-2)
349.40 Further instruction says then add '0' to the result and
Add the first digit following 34 in 342 - 348
349.405 Criminal Law of Australia
Further instruction says then add the numbers following 0 in sub-divisions 01 - 09
under the appropriate number in 342 - 348
5 Number following 0 (zero) in 345.05 Criminal Procedure
349.405 5 *Law of Criminal Procedure in Australia*
Law + Country + Zero + Major Branch of Law + Sub Topic
34 94 0 5 5

Option-C :

Class law of a specific discipline or subject with the discipline or subject using 'standard sub-divisions' notation 026 from Table-1. But (-026) law in Table-1 has been made as an optional number.

For example:

Law of Education 370.26

Note : We prefer Option-A and follow this in our practice.

Examples :

a) *Law of Unemployment Insurance in India* 344.540 22

344 Social Law
54 India (Table-2)
024 Unemployment Insurance (Subtopic under 344)

$344 + 54 + 024 = 344.540 22$

b) *Law of Mental Health Services in India* 344.540 44

344 Social Law
54 India (Table-2)
044 Mental health services (sub-topic under 344)

5.5.2 CLASSIFYING DOCUMENTS IN PUBLIC ADMINISTRATION

DDC assigned a Central heading 353 - 354 for specific central government and the class number 353 is allotted to United States federal and state governments. The public international organisations and specific central governments other than those of United States are to be classed at 354. (Instructions are given under 354).

354.3 - .9 Specific Central Governments other than those of United States:
Add 'Areas' notation 3 - 9 from Table-2 to base number 354"; then add further as enumerated (01 - 09 are allotted for various aspects and enumerated there). (Refer p.444 of Volume-2).

For example:

a) *Ministry of Foreign Affairs of the Government of India*

354.3 - .9 Specific Central Governments other than those of USA (Base number is 354)
54 India (Table-2)
354.54 Central Government of India
06 Specific executive departments and ministries of cabinet rank
 (as enumerated under 354.3 - .9)
 Add to 06 the numbers following 351.0 in 351.01 - 351.08
351.01 Foreign Affairs
1 Number following 351.0 in 351.01
 $354 + 54 + 06 + 1 = 354.540\ 61$

b) *Ministry of Finance of the Government of France*

354 Central government
44 France (Table-2)
06 Ministries (as enumerated under 354)
2 Number following 351.0 (351.02 Finance)
 $354 + 44 + 06 + 2 = 354.440\ 62$

5.5.3 CLASSIFYING DOCUMENTS IN POLITICAL SCIENCE

We find specific instructions at certain places in 320 Political Science for further adding subject divisions after Areas notation. For example:

a) *Standing Committees of Indian Parliament*

328.4 - .9 Legislative Branch of Specific jurisdictions in Modern World
54 India (Table-2)
328.54 Parliament of India
07652 - 07657 Generalities and specific types of Committees
 Add to 0765 the number following 328.365 in 328.3652 - 328.3657
328.3657 Specific types of Committees (Standing, Special, Select, etc.)
07657 Stands for Standing Committees
 $328 + 54 + 07657 = 328.540\ 765\ 7$

b) *Labour Party in New South Wales*

324.294 407

324.294 Political Parties of Australia

324.2941 - .2948 Political parties of States and territories of Australia.
Add Areas notation 941-948 from Table-2 to base number 324.2

944 New South Wales (Table-2)
Instruction to add number following 324.294 in 324.29401 - 324.29409

324.29407 labour Party (number following 324.294 is 07)

$324 + 944 + 07 = 324.294\ 407$

Self-check Exercise - 5

Classify the following titles:

- a) *Conservative parties of UK*
- b) *Rajya Sabha - The Upper House of Indian Parliament*
- c) *US Law of Public Health*
- d) *Indian Law of Income Tax*
- e) *Debates in Andhra Pradesh Assembly*
- f) *Law of Social Insurance in India*
- g) *Amendment procedure in India*
- h) *Ministry of House Affairs of the Government of UK*
- i) *Prime Minister of India*
- j) *Queen of Britain*

- Note: i) Write your answer in the space given below.
ii) Compare your answers with those given at the end of this Unit.

5.6 EXTENDING AN AREA NUMBER FROM TABLE-2 BY ANOTHER NUMBER FROM TABLE-2 ITSELF

There are two methods of extending an Area Number with another Area Number from Table-2 itself.

- i) Use of Areas enumerated under -1 plus Areas enumerated under -3 -9 together; and
- ii) Reversing the sequence of facets (i.e., Use of Areas enumerated under -3 -9 plus Areas enumerated under -1)

Method-1 :

Area numbers in Table-2 are enumerated under -1 and again -3 to -9. DDC has made provision for extending an Area Number under -1 by another Area Number from -3 -9. With this provision Areas, regions, places in general can be joined together with specific continents, countries and localities.

For example:

Rural Regions in India

-1734 Rural Regions (Table-2)

-54 India (Table-2)

To synthesize a compound number for 'rural areas in India'; we need to look for instructions given at -1 areas, regions, places in general.

-03 -09 Treatment by Continent, Country, Locality
Add 0 to base number; then add Areas notation 3 -9 from Table-2;

$1734 + 0 + 54 = -1734054$ Rural Areas in India

Similarly,

a) *Rural regions of Andhra Pradesh* -173405484

1734 Rural Regions (Table-2)

0 Interposing zero as instructed

5484 Andhra Pradesh (Table-2)

$1734 + 0 + 5484 = -173405484$

b) *Rivers of Bangladesh* -169305492

1693 Rivers and other Streams (Table-2)

0 Interposing zero

5492 Bangladesh (Table-2)

$1693 + 0 + 5492 = 169305492$

c) *Deserts of Australia* -154094

154 Deserts (Table-2)

0 Interposing zero

94 Australia (Table-2)

$154 + 0 + 94 = 154094$

d) *Tropics of Asia* -1305

13 Tropics (Torrif Zone)
0 Interposing Zero
5 Asia (Table-2)

$$13 + 0 + 5 = 1305$$

e) *Mountain regions of USA* -143073

143 Elevations (Mountains) (Table-2)
0 Interposing Zero
73 USA (Table-2)

Based on the above synthesis now let us work out some examples:

a) *Private Libraries in Rural areas of India*

027.1 Private Libraries
1734 Rural Regions (Table-2)
0 Interposing zero
54 India (Table-2)

$$027.1 + 1734 + 0 + 54 = 027.11734054$$

b) *Crimes in the rural regions of A.P.*

$$364.9 + 1734 + 0 + 5484 = 364.9173405484$$

c) *Welfare work in Andhra Pradesh*

$$361.9 + 1812 + 0 + 5484 = 361.9181205484$$

Method-2:

Reversing the Sequencing of Facets: The sequence of Area facets can also be reversed. Instructions to this effect are provided at -3 -9 specific continents, localities, extra terrestrial worlds. This option is to be used at specific instances of a subject where regional treatment is required.

Here the instruction means to any number -3 -9 add 009 Regional treatment and to the result add the number following -1 in -11 -19. For example,

a) *Rural Regions of India* -540091734

54 India (Table-2)
009 Interposing number
1734 Rural regions (Table-2)

$$54 + 009 + 1734 = 540091734$$

b) *Rivers of Bangladesh* -5492009693

$$5492 + 009 + 693 = 5492009693$$

c) *Deserts of Australia* -9400954

$$94 + 009 + 954 = 9400954$$

d) *Tropics of Asia* -50093

$$5 + 009 + 3 = -500\ 93$$

e) *Mountain Regions of US* -7300943

$$73 + 009 + 43 = 730\ 094\ 3$$

Based on the above numbers now let us work out some examples:

a) *Geography of Rural Regions of India*

91 Geography (Base number)

54 India (Table-2)

009 Regional treatment (Table-2)

Add to 009 numbers following -1 in -11 -19.

734 Rural regions (following 1 in 1734)

$$91 + 5400734 = 915.400\ 973\ 4$$

b) *Geography of Mountains area of India*

$$91 + 5400743 = 915.400\ 943$$

You can use either of these methods for containing two Area Numbers from Table-2 itself. However, you must be consistent in using one of them.

Self-check Exercise - 6

Synthesise the class number for the following titles:

- School Libraries in rural regions of India*
- A study of Juvenile delinquents of under-developed countries of Asia*
- Crimes in the cities of India*
- Standard of living in Indian villages*
- Atmospheric pressure in Indian Forests*
- Political conditions in communist countries of Asia*
- Political conditions in Christian countries of Africa*
- Commercial policy in British colonies.*

Note: i) Write your answer in the space given below.

ii) Compare your answers with those given at the end of this Unit.

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5.7 ADDING AREA NOTATION TO A STANDARD SUB-DIVISION OTHER THAN -09

Area notation can be added to a class number through a standard sub-division other than -09. Such a provision occurs in the following cases:

- 023 The subject as a profession, occupation, hobby
Add 'Areas' notation 1-9 from Table-2.
- 025 Directories of persons and Organisations
Add 'Area' notation 1-9 from Table-2.
- 0294 Price lists and trade catalogues
Add 'Area' notation 4-9 from Table-2
- 0603 - 9 National, state, provincial, local organisations
Add Area notation 3-9 from Table-2 to base number -060
- 0701 - 9 Geographical treatment of Study & Teaching
Add Area notation 1-9 from Table-2 to base number -070
- 07101-09 Geographical treatment (Schools & Courses)
Add -1 -9 from Table-2 to base number -0710
- 0711 Colleges and Universities -0771
Add 'Area' notation 1-9 from Table-2 to -0771
- 0712 Secondary School
Add 'Area' notation 1-9 from Table-2
- 07201 -09 Geographical Treatment (Research)
Add Area notation 1-9 from Table-2 to -0720

Examples:

a) *Study and Teaching of Economics in France*

- 330 Economics
 - 070 Base Number Geographical treatment of study & teaching (Table-1)
 - 44 France (Table-2)
- $330 + 07044 = 330.070 44$

b) *Study and Teaching of Botany in India* 581.070 54

$581 + 07054 \text{ (Table-1)} = 581.070 54$

c) *Teaching Political Science in Colleges and Universities in India*

- 320 Political Science
 - 0711 Colleges & Universities (Table-1)
 - 54 India (Table-2)
- $320 + 071154 = 320.711 54$

For example,

- a) *Research on Economic Geography of India* 330.954 072
330.91 - 99 Geographical Treatment (Economic Geography)
Add "Areas" notation 1-9 from Table-2 to base number 330.9
54 India (Table-2)
330.954 Economic Geography of India
072 Research (Table-1)
 $330.9 + 54 + 072 = 330.954 072$

- b) *Journal of Secondary Education in Scandinavia* 373.480 5
373 Secondary Education
373.3 . 9 By specific continents, countries, localities
48 Scandinavia (Table-2)
05 Journal (Table-1)
 $373 + 48 + 05 = 373.480 5$

- c) *Research in UK on Indian Land Reforms*
 $333.31 + 54 \text{ (Table-2)} + 0720 \text{ (Table-1)} + 41 \text{ (Table-2)} = 333.254 072 041$

Caution : When you are adding standard sub-division notation to an Area number you have to check if the Area is added through the SS -09. If it is so it will not be possible to add further any SS to Areas notation. Two SS notations cannot be added simultaneously to a class number. In such cases we will have to choose one of them as per the Table Precedence.

- d) *Journal of Radiotelephony in UK*
384.53 Radiotelephony (There is no provision to add Area number from Table-2)
093 - 099 Treatment by specific continents, countries, localities, extra terrestrial worlds (Table-1)
Add "Areas" notation 3-9 from Table-2
05 Journal (Table-1)

As per rules we can add one of them. As per the Table of precedence, 093 - 099 is to be preferred over -05. Hence our number will be :

$$384.54 + 09 \text{ (Table-1)} + 41 \text{ (Table-2)} = 384.540 941$$

(Here we have ignored the SS -05)

Self-check Exercise - 8

Classify the following titles :

- Journal of Art History in India*
- Seminar on Postal Organisation in India*
- Research in India on Bangladesh Economy*
- Journal of Telephony in France*
- Conference on Government Libraries in India*
- National (Indian) Seminar on Roman Law*
- Conference on Child Labour in India*

Note: i) Write your answer in the space given below.
ii) Compare your answers with those given at the end of this Unit.

4. a) 382.944 094
b) 382.097 309 4
c) 327.410 52
d) 327.540 73
e) 382.952 054
f) 341.914 705 4
g) 325.250 917 22
h) 338.917 305 367
i) 332.456 095 405 67
j) 331.625 107 94

5. a) 324.410 4
b) 328.540 71
c) 344.730 4
d) 343.540 52
e) 328.548 402
f) 344.540 2
g) 342.540 32
h) 354.410 63
i) 354.540 313
j) 354.410 312

6. a) 027.825 400 973 4 (or) 027.821 734 054
b) 364.360 950 097 24 (or) 364.360 917 240 5
c) 364.917 320 54 (or) 364.954 009 732
d) 339.470 917 340 54 (or) 339.470 954 009 734
e) 551.540 915 205 4 (or) 551.540 954 005 2
f) 320.917 170 5 (or) 320.950 097 17
g) 320.917 610 6 (or) 320.960 097 6
h) 381.309 171 204 1 (or) 381.309 410 097 12

7. a) 320.072 054
b) 620.234 1
c) 330.070 54
d) 350.071 154
e) 384.602 554 84
f) 020.254 1
g) 332.106 054
h) 362.060 73
i) 530.720 54
j) 370.720 54

8. a) 709.540 5
b) 383.495 406
c) 330.954 920 720 54
d) 384.609 44
e) 027.554 06
f) 340.540 654
g) 331.065 4

5.11 ASSIGNMENT

1. What is the basis of division of Areas in Table-2?
2. When is an Area notation added through Standard sub-division notation? Illustrate your answer with examples.
3. What are the methods of extending an Area number by another Area number from Table-2 itself?

5.12 RECOMMENDED BOOKS

Dewey Decimal Classification : 3 V. 19th ed / ed. by Benjamin A. Custer. Albany, New York : Forest Press, 1979.

Manual on the Use of the Dewey Decimal Classification : 19th Edition. New York : Forest Press, 1982.

Satiya, M.P. and Comarami, John P. *Introduction to the Practice of Dewey Decimal Classification*. New Delhi : Sterling, 1987.

5.13 GLOSSARY

Areas Table : A table of notations designating geographical areas, such as continents, countries, regions and places.

Table of Precedence : A table given in DDC prescribing which standard sub-division is to be taken in the case of the title of a document involves two or more standard sub-divisions.

UNIT-6 : USE OF TABLES 3 AND 3A

Contents

- 6.0 Aims and Objectives
- 6.1 Introduction
- 6.2 Use of Table-3
 - 6.2.1 Division of Main Class : 800 Literature
 - 6.2.2 Subdivisions in specific literatures
 - 6.2.3 Summary of Table-3
 - 6.2.4 Synthesis of Numbers
 - 6.2.5 Classifying Works of individual authors
 - 6.2.6 Anthologies and critical appraisal
 - 6.2.7 Literatures in specific languages and forms
 - 6.2.8 Literatures of a specific language, form and period
- 6.3 Use of Table-3A
 - 6.3.1 General literature displaying specific themes
 - 6.3.2 Literature of specific languages displaying specific themes
 - 6.3.3 Specific Form of a literature displaying specific theme
 - 6.3.4 Special aspects of Theatre
- 6.4 Summing Up
- 6.5 Model Answers
- 6.6 Assignment
- 6.7 Recommended Books
- 6.8 Glossary

6.0 AIMS AND OBJECTIVES

In this Unit we introduce you to the use of Tables 3 and 3A. You have to use these tables as per instructions in the schedules and Tables.

After studying this Unit you will be able to :

- identify the places in the schedules and auxilliary tables requiring the use of Table-3;
- make use of Table 3 and 3A in classifying works on creative literature in all languages and forms of expression.

6.1 INTRODUCTION

In previous two units we have introduced you to Table-1 Standard sub-divisions (Unit-4) and Table-2: Areas (Unit-5). This Unit deals with the use of auxiliary Table-3: Subdivisions of Individual Literatures.

Unlike Tables 1 and 2, the table is frequently used in number building in Literature class. Table-3 is used for number building of specific literatures enumerated in the main class 800.

6.2 USE OF TABLE-3 : SUB-DIVISIONS OF INDIVIDUAL LITERATURES

DDC defines Table-3 : Sub-divisions of Individual literatures as "A table of notations designating regularly recurring topics applicable to any literature, may be added as desired to individual literatures in 810-890" There are two parts in this tables : 3 and 3A. Table-3A has been included in the 19th edition.

6.2.1 DIVISION OF MAIN CLASS : 800 LITERATURE

Table-3 specifically designed to meet various requirements of specific literatures listed in the main class 800 Literature (Belles Lettres). The main class 800 Literature covers works of literature and works about literature. It has been divided into divisions on the basis of broad language groups.

- 800 Literature (Belles Lettres)
- 810 American Literature in English
- 820 English : Anglo-Saxan Literature
- 830 Literatures of Germanic Languages
- 840 Literatures of Romance Languages
- 850 Italian, Romanian, Rhaeto-Romanic
- 860 Spanish & Portuguese Literatures
- 870 Italic Literatures Latin
- 880 Hellenic Literatures Greek
- 890 Literatures of Other Languages

General topics of literature are enumerated under 801 - 809. Though the division of these sections are based on Standard subdivisions, some of the entries under 801 and 808 are locally modified or extended.

6.2.2 SUBDIVISIONS IN SPECIFIC LITERATURES

- 800 Literature (Belles - Lettres)
- 801 Philosophy and theory
 - 801.3 Value, influence, effort
 - 801.9 Nature and Character
- 802 Miscellany about literature
- 803 Dictionaries, Encyclopédias, Concordances
- 805 Serial Publications
- 806 Organisations
- 807 Science & Technology
- 808 Rhetoric and Collections
- 809 History, description, critical appraisal of more than one literature

808 has been extensively subdivided and made provision for adding numbers from Table-3.

- .02 Authorship and Editorial techniques
- .04 Rhetoric in specific languages
- .06 Rhetoric of specific kinds of composition
 - .1 Rhetoric of poetry
 - .2 Rhetoric of Drama
 - .3 Rhetoric of Fiction
 - .4 Rhetoric of Essays
 - .5 Rhetoric of Speech
 - .6 Rhetoric of Letters
 - .7 Rhetoric of Satire & Humour

Again you find sub-divisions similar to those in 808.1 - .9 involving poetry, drama, fiction, essays, speeches, letters... etc. in the sections of 810 - 880. For example:

- 820 English Literature
- 821 Poetry
- 822 Drama
- 823 Fiction
- 824 Essays
- 825 Speeches
- 826 Letters
- 827 Satire & Humour
- 828 Miscellaneous Writings

The last digits are taken from Table-3 sub-division of individual literatures and combined/synthesized with the literature of that particular language from the main class 800.

6.2.3 SUMMARY OF TABLE-3

A summary of Table-3 is as follows :

- 01 -07 Standard Subdivisions
- 08 Collections
- 09 History, description, critical appraisal
- 1 Poetry
- 2 Drama
- 3 Fiction
- 4 Essays
- 5 Speeches
- 6 Letters
- 7 Satire and Humour
- 8 Miscellaneous Writings

Each of these literary forms -1 -8 has been further divided by:

a) *Standard Subdivisions attached with two zeros, e.g.,*
-1001 -1007 Standard Subdivisions of poetry;

b) *Varieties of that literary form, e.g.,*

- 1 Poetry
 - 102 Dramatic
 - 103 Epic
 - 104 Lyric and balladic
 - 105 Didactic
 - 106 Descriptive
 - 107 Satirical and Humourary
 - 108 Light and ephemeral verse
- 2 Drama
 - 202 For radio and television
 - 203 For motion pictures
 - 205 Specific kinds of drama
 - 2051 Tragedy and Serious drama
 - 2052 Comedy and melodrama

- 3 Fiction
 - 301 Short Stories
 - 306 Cartoon fiction (comics)
 - 308 Specific types of fiction

c) *Period of divisions as taken from the schedules e.g.*

- 11 -19 Poetry for specific periods
- 21 -29 Drama of specific periods
- 31 -39 Fiction of specific periods

6.2.4 SYNTHESIS OF NUMBERS

Synthesis of numbers in Literature main class involves base number from the schedules and appropriate subdivisions in Table-3. A base number in the literature class is digit 8 followed by a language number.

The Class numbers are constructed by combining the base number from the Schedules with the sub-divisions given in Table-3. A detailed procedure for building class numbers in literature of specific languages are given under.

810 - 890 Literatures of specific languages (Vol-2: p.1398-1400)

The class numbers are asterisked leading via foot-note, to the instructions. Following Table provides you a sample of class numbers thus synthesized :

Literature	Base Number	Poetry	Drama	Fiction	Short Stories
		-1	-2	-3	-301
American	81	811	812	813	813.01
English	82	821	822	823	823.01
German	83	831	832	833	833.01
French	84	841	842	843	843.01
Italian	85	851	852	853	853.01
Spanish	86	861	862	863	863.01
Latin	87	871	872	873	873.01
Greek	88	881	882	883	883.01
Punjabi	891.42	891.421	891.422	891.423	891.423 01
Hindi	891.43	891.431	891.432	891.433	891.433 01
Marathi	891.46	891.461	891.462	891.463	891.463 01
Telugu	894.827	891.827 1	891.827 2	891.827 3	891.827 301

Self-check Exercise - 1

Classify the following titles:

- a) *Italian Drama*
- b) *Spanish Poetry*
- c) *Tamil Fiction*
- d) *Bengali Poetry*
- e) *Marathi Short stories*

- Note: i) Write your answers in the space given below.
 ii) Compare your answers with those given at the end of this Unit.

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6.2.5 CLASSIFYING WORKS OF INDIVIDUAL AUTHORS

Assigning class numbers to works of an individual literary author generally involves three or four steps. The formula is

$$\text{Base Number} + \text{Form} + \text{Period}$$

Step-1 : Find the class number that is designated by note or appears in the number column of the schedules 810 - 890. It primarily consists of the language preceded by digit 8. E.g. 82 English - literature.

Step - 2 : Turn to Table-3 to find the correct sub-division for the literary form. e.g. 1 poetry. Add this number to the base number. E.g. English Poetry 821.

Step - 3 : Turn back to the appropriate number in the schedule 810 - 890 and see if there is a period table. If there is a period table, proceed to step-4; if not, or if it cannot be used, the number is completed.

Step - 4 : Select the appropriate period number. E.g. Elizabethan period in English Literature of Great Britain -3. If we look under 820 Literature of English and Anglo-Saxon Languages there are period tables for English. There is specific sub-Table for Great Britain.

1	Early English Period	1066 - 1400
2	Pre-Elizabethan Period	1400 - 1558
3	Elizabethan Period	1558 - 1625
4	Post-Elizabethan Period	1625 - 1702
5	Queen Anne Period	1702 - 1745
6	Later 18th Century	1745 - 1800
7	Early 19th Century	1800 - 1837
8	Victorian Period	1837 - 1900
9	1900	
91	20th Century	
912	Early 1900 - 1945	
914	Later 1945	

- Separate sub-tables are given for -
- African countries other than South Africa
 - Asian countries
 - Australia
 - Great Britain
 - Ireland
 - New Zealand
 - South Africa

Let us now try some examples:

i) Class Number for some English writers:

a) *The poetry of Chaucer* (1340 - 1400)

82 Base number for English Literature

1 Form : Poetry (Table-3)

1 Period (Early English Period)

$$82 + 1 + 1 = 821.1$$

b) *Lycidas* by John Milton (1608 - 1674)

$$82 + 1 (\text{Poetry}) + 4 (\text{Period: Post-Elizabethan}) = 821.4$$

c) *Poems of John Keats* (1795 - 1821)

$$82 + 1 (\text{Poetry}) + 7 (\text{Early 19th Century}) = 821.7$$

d) *Men and Women and Other Poems* : Robert Browning (1812 - 1889)

$$82 + 1 (\text{Poetry}) + 8 (\text{Victorian Period}) = 821.8$$

e) *Selected Poems* by Alfred Tennyson (1809 - 1892)

$$82 + 1 (\text{Poetry}) + 8 (\text{Victorian Period}) = 821.8$$

Similarly,

f) *The Alchemist* by Ben Johnson (1572 - 1637)

$$82 + 2 (\text{Drama : Table-3}) + 3 (\text{Period}) = 822.3$$

g) *Great Expectations* by Charles Dickens (1812 - 1870)

$$82 + 3 (\text{Fiction}) + 8 (\text{Period}) = 823.8$$

ii) Class Numbers for some American English Writers :

Note : Separate period table is given at 810 (page 1401 of Vol.2: Schedules) for American writers

a) *The wings of the Dove* by Henry James (1843 - 1916)

$$81 + 3 (\text{Fiction}) + 4 (\text{Period}) = 813.4$$

b) Wallance Stevens (1879 - 1955) : *The Critical Heritage*

$$81 + 1 (\text{Form}), + 52 (\text{Period}) = 811.52$$

c) *James Fenimore Cooper (1789 - 1851) : A Collection of Critical Essays*

$$81 + 4 (\text{Form, Essays}) + 2 (\text{Period}) = 814.2$$

But

d) *Poetry of James Fenimore Cooper* (1789 - 1851)

$$81 + 1 (\text{Form: Poetry}) + 4 = 811.4$$

iii) Class Numbers for some German, French, Italian, Spanish and other literary Writers:

- a) J.W. Goethe (1749 - 1832) : *Faust*
83 (German) + 1 (Poetry) + 5 = 831.5
(5 Period of Imitation 1625 - 1750)
- b) Alexandre Dumas (1802 - 1870) : *The Three Musketeers*
84 (French) + 3 (Fiction) + 6 (Period) = 843.6
- c) Anton Chekhov (1860 - 1904) : *The Cherry Orchard - A Comedy in Four Acts*
891.7 (Russian) + 20523 (Comedy) + 3 (19th Century) = 891.720 523 3
- d) *Komos* : Greek Ancient Drama
88 + 2 (Drama) + 1 (Period) = 882.01
Add to 882.0 the notation from the period table for classical Greek.
- e) *Life is a Dream* : Pedro Calderon (1600 - 1681)
86 (Spanish) + 2 (Drama) + 3 = 862.3
(3 Golden Age 1516 - 1700)

Self-check Exercise - 2

Classify the following literary works:

- a) *School for Husbands* : Baptiste Poquelin (1622 - 1673) (French Drama)
- b) *Fashion or Life in New York* : Anna Cora Mowath (1819 - 1970) (American Plays)
- c) *Kabuki* by Chikamatsu (1653 - 1724) (Japanese Drama)
- d) *The Frogs and the Clouds* : Aristophanes (448 - 380 B.C.) (Ancient Greek Comedies)
- e) *Writing and reading in Henry James* (1843 - 1916)
- f) Jane Austen's (1775 - 1817) *Heroines : Intimacy in Human Relationships*
- g) *The Bontonians* by Henry James (1843 - 1916)
- h) *Yeast* : Poems (Yeast 1919 - 1935)
- i) *Comus* : John Milton (1608 - 1674)
- j) *The Poetry of Chaucer* by John Champlin (1933 -)
- k) *Selected Poems of Robert Browning* (1812 - 1889)
- l) *The English Teacher* : R.K. Narayan (1906 -)

- Note: i) Write your answers in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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iv) Class Number for Literatures of Indian Languages :

The literatures of Indian languages are enumerated under 891.4 Modern Indic Literatures (Tertiary Prakrits) and 494.8 Dravidian Literatures. Separate Period Tables for these literatures are given.

<u>Modern Indic Literatures</u>		<u>Dravidian Literatures</u>	
1	To 1345	1	To 1345
2	1345 - 1645	2	1345 - 1645
3	1645 - 1845	3	1645 - 1845
4	1845 - 1895	4	1845 - 1895
5	1895 - 1920	5	1895 - 1920
6	1920 - 1940	6	1920 - 1940
7	1940 -	7	1940 -

Let us try some examples :

- a) *Preeti Kavya Bhushan* by Ramkher Tripathi (A contemporary Hindi Writer)

$$891.43 + 1 (\text{Poetry}) + 7 (\text{Period}) = 891.4317$$

- b) Prem Chand (1880 - 1936) : *Chess Players*

$$891.43 + 3 (\text{Fiction}) + 5 (\text{Period}) = 891.4335$$

- c) *Secret of Culture and other stories* by Prem Chand (1806 - 1936)

$$891.43 + 3 (\text{Fiction}) + 5 (\text{Period}) = 891.4335$$

(All the novels of Munshi Prem Chand will get the same Class Number)

- d) *Binodini* : A Novel by Rabindranath Tagore (1861 - 1941)

$$891.44 (\text{Bengali Literature}) + 3 (\text{Form}) + 5 (\text{Period}) = 891.4435$$

- e) *Chaturanga* - Bengali Novel by Rabindranath Tagore

$$891.44 + 3 (\text{Form}) + 5 (\text{Period}) = 891.4435$$

- f) *Vidhata* : A Novel by Challa Subrahmanyam (A Contemporary Telugu Writer)

$$894.827 (\text{Telugu Literature}) + 3 (\text{Form}) + 7 (\text{Period}) = 894.82737$$

- g) *Paleosiberian Poetry* 894.6

Here, the form 1 for poetry from Table-3 cannot be added, since the entry 894.6 is neither asterisked, nor there is any add-to-instruction.

Self-check Exercise - 3

Classify the following literary works of India Languages:

- a) *19th Century Hindi Fiction*
- b) *Gora* : Rabindranath Tagore (1861 - 1941)
- c) *Viswambhara* : C. Narayana Reddy (1931 -) (Poetry)
- d) *Cheekatlo Satruvu* : A novel by Magunta Dayakar (A contemporary Telugu Writer)
- e) *Kagaz Te Kanvas* : Amrita Pritam (Born 1919)
- f) *Chora Bali* : Bishnu Dey (Born 1909)

Note: i) Write your answers in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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6.2.6 ANTHOLOGIES AND CRITICAL APPRAISALS

(i) General Literature :

General works on literature such as literary anthologies, histories, critical appraisal of literatures, etc. are classed under 808.

- 808.8 Collections from more than one Literature
- 809 History, description, critical appraisal of more than one literature.

a) *Collections of 17th Century Literature*

- 808.8 Collections from more than one literature
- 808.8001 - 8005 Collections from specific periods
Add to base number 808.800 the numbers following 090 in 'Standard sub-divisions' notation 0901 - 0905 from Table-1 ... "
- 09032 17th Century (Table-1)
- 32 Number following 090 in 09032
- $808.800 + 32 = 808.800\ 32$

b) *Anthology of 20th Century Literature*

- 808.800 Collections from specific periods (base number)
- 0904 20th Century, 1900 - 1999
- 4 Number following 090 in 0904
- $808.800 + 4 = 808.800\ 4$

c) *Collections of Epic Poetry*

- 808.81 Collections of Poetry
808.812 - .818 Specific kinds
Add to base number 808.81 the numbers following 10 in
"sub-divisions of individual literatures" notation 02 - 108 from Table-3
103 Epic poetry (Number following 10 is 3)
808.81 + 3 = 808.813

d) *History of 18th Century Literature*

- 809.01 - .05 Literature from specific periods
Add 'standard sub-divisions' notation 0901 - 0905 from
Table-1 to base number 8
09033 18th Century (Table-1)
8 + 09033 = 809.033

e) *History of epic poetry and critical appraisal*

- 809.1 - 7 History of Literature in specific forms
Add to base number 809 the numbers following 808.8 in 808.81 - 808.87
808.81 Collections of Poetry
1 Poetry (number following 808.8 in 808.81)
808.812 - .818 Specific kinds
Add to base number 808.81 the numbers following 10 in Table-3
103 Epic poetry (Table-3)
3 Number following 10 in 103
809 + 1 + 3 = 809.13

Self-check Exercise - 4

Classify the following Literary Works:

- a) *History of 20th Century Poetry*
- b) *Collection of 17th Century Literature*
- c) *Collections of Dramatic Poetry*
- d) *Collections of descriptive speeches*
- e) *History and Critical appraisal of one-act Plays*

Note: i) Write your answers in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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ii) Specific Literatures :

Literatures of specific languages are classed in 810 - 890. Works dealing with Anthologies and Critical appraisal of literature of specific language are to be classed under the specific literature 810 - 890 and standard sub-divisions of individual literature (Table-3) to be added.

For example -

- a) *An anthology of English Literature* 820.8
- 820 Literatures of *English and Anglo-Saxon Languages
82 Base number of English Literature
 Instructions given under 810 - 890 says that under each literature identified by *,
 add to designated base number, the "Sub-divisions of individual literatures"
 notation 01 - 89 from Table-3.
08 Collections (Table-3)
- $82 + 08 = 820.8$ Anthology of English Literature.
- b) *An Anthology of Telugu Literature* 894.827 08
- 894.827 *Telugu Literature
 Instructions Under 810 - 890 to use Table-3.
08 Collections (Table-3)
- c) *History of Hindi Literature* 891.430 9
- 891.43 *Hindi Literature
09 History, Description, Critical Appraisal (Table-3)
- d) *History of 20th Century Marathi Literature* 891.460 900 5
- 891.46 *Marathi Literature
09 History, Description, Critical appraisal (Table-3)
09001 - 09009 Literature from Specific Periods
 Add to -0900 the notation from the period table for the specific literatures
5 1895 - 1920 (Period Table for specific modern Indic Literatures given at 891.4)
09005 20th Century
- $891.46 + 0900 + 5 = 891.460 900 5$

Self-check Exercise - 5

Classify the following Literary Works :

- A History of Indian Literature from Vedic times to the present day*
- Nineteenth Century Telugu Literature*
- Modern Hindi Literature*
- History of French Literature in the 18th Century*
- A History of Urdu Literature in the late 19th Century*

Note: i) Write your answers in the space given below.
ii) Compare your answers with those given at the end of this Unit.

6.2.7 LITERATURE IN SPECIFIC LANGUAGES AND FORMS

Works dealing with Literature in specific languages and forms are to be classified under the literature of that particular language and form number is to be added from Table-3 Sub-divisions for individual literatures. For example:

a) *American Epic Poetry*

810 *American Literature in English

81 Base Number

103 Epic poetry (Table-3)

$81 + 103 = 811.03$

b) *Anthology of American Epic Poetry*

81 Base number for American Literature

103 *Epic Poetry (Table-3)

Asterisk lead us to foot note: *Add instructions under 1 - 8

08 Collections (-1 -8 Specific forms)

$81 + 103 + 08 = 811.0308$

c) *A History of American Odes*

$81 + 1043 \text{ (Table 3)} + 09 = 811.04309$

d) *A periodical of American Dramatic Poetry*

$81 + 102 + 05 \text{ (ss for journal as under 1-8)} = 811.0205$

e) *Encyclopaedia of Telugu Epic Poetry*

$894.827 + 103 + 03 + 894.82710303$

f) *Anthology of Comedy in French*

$84 \text{ (Base Number)} + 20523 \text{ Comedy (Table-3)} + 08 = 842.052308$

g) *An Anthology of American Poetry*

$81 + 1008 \text{ (Table-3)} = 811.008$

h) *Critical Appraisal of American Poetry*

$81 + 1009 = 811.009$

i) *Critical appraisal of Telugu Poetry*

$894.827 + 1009 = 894.8271009$

j) *Modern American Fiction* 813.5

81 American Literature (Base Number)

31-39 Fiction for specific periods
Add to -3 the notation from the period table for the specific literature

5 20th Century

Self-check Exercise - 6

Classify the following titles:

- A Journal of Telugu Short Stories*
- A Dictionary of Bengali Epic Poetry*
- Critical appraisal of Science Fiction in Telugu Poetry*
- Chinese Poetry : An Anthology*
- Critical Appraisal of Sanskrit Drama*

Note: i) Write your answers in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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6.2.8 LITERATURE OF A SPECIFIC LANGUAGE, FORM AND PERIOD

Anthologies, history, critical appraisal of literary works of a specific language, form and period are classified according to the following formula:

Base Number + Form (Table-3) + Period (As taken from the Schedule of that language literature) + 08/09

Examples :

a) *An anthology from Modern American Fiction*

81 American Literature (base number)

31 - 39 Fiction for specific periods
Add to -3 the notation from the period table for the specific literature;
then to the result add the numbers following 10 in -1001 -1009

5 20th Century

08 Collections (number following 10 in 1008)

$$81 + 3 + 5 + 08 = 813.508$$

b) *Critical appraisal of 20th Century American Poetry*

$$81 (\text{Base} + 1 (\text{Form}) + 5 (\text{Period}) + 09 (\text{Critical appraisal : Table-3}) = 811.509$$

Similarly,

c) *An anthology of Later 19th Century American Poetry*

$$81 + 1 (\text{Poetry}) + 4 (\text{Period}) + 08 (\text{Anthology From 1008 Table-3}) = 811.408$$

d) *Critical appraisal of Sanskrit Drama of Earliest Period*

$$891.2 + 2 (\text{Drama}) + 1 (\text{Period}) + 09 (\text{Critical appraisal}) = 891.221 09$$

Self-check Exercise - 7

Classify the following titles :

- Critical Appraisal of 17th Century Spanish Novel*
- Collection of Victorian English Poetry*
- Critical appraisal of Contemporary Telugu Poetry*
- Critical appraisal of Punjabi Satirical Poetry*
- Collection of Contemporary Urdu Poetry*

Note: i) Write your answers in the space given below.

ii) Compare your answers with those given at the end of this Unit.

6.3. USE OF TABLE-3A

We have earlier noted that Table-3 is specially designed to meet the various requirements of literatures of specific languages enumerated in 810 - 890. In the 19th Edition Table-3 has been supplemented by Table-3A. The main purpose of Table-3A is to avoid repetition of common concepts at different places, i.e., under -08 Collection, -09 History, description, critical appraisal, and also under different forms of literature. With the provision of Table-3A, now we can add the common concepts from this Table on the basis of the instructions provided under different places.

Table-3A provides notation for the following concepts:

- 1 Literature displaying specific features
- 2 Literature displaying specific elements
- 3 Literature dealing with specific themes and subjects
- 4 Literature emphasizing subject values
- 8 Literature for and by various specific racial, ethnic, national groups
- 9 Literature for and by other specific kinds of persons

Works which need the use of Table-3A can be categorised as follows :

- (1) - General Literature displaying specific themes;
- (2) Literatures of specific languages displaying specific themes;
- (3) Specific Form of a literature displaying specific themes; and
- (4) Special aspects of Theatre (792.09)

6.3.1 GENERAL LITERATURES DISPLAYING SPECIFIC THEMES

We make use of Table-3A, when the collections from more than one literature (808.8) and History, description, critical appraisal of more than one literature (809) are involved. For example:

a) *A collection of literature featuring Romanticism*

808.801 - .803 Collections displaying specific features
Add notations 1-3 from Table-3A to base number 808.80.

145 Romanticism (Table-3A)

$$808.80 + 145 = 808.801\ 45$$

b) *Collection of Poetry on Symbolism*

808.819 Poetry displaying specific features
Add notations 1-3 from Table-3A to base number 808.819

15 Symbolism (Table-3A)

$$808.819 + 15 = 808.819\ 15$$

c) *Critical appraisal of Poetry on Social Themes* 809.193 55

809 History, description, critical appraisal of more than one literature

809.1 - .7 Literature in Specific Forms
Add to base number 809 the numbers following 808.8 in 808.81 - .87

808.819 Poetry displaying specific features
Add notations 1-3 from Table-3A

355 Social themes (Table-3A)

808.819355 Poetry on Social Themes

19355 Number following 808.8 in 808.819355

$$809 + 19355 = 809.193\ 55$$

Self-check Exercise - 8

Classify the following titles:

- An anthology of Idealism in Literature*
- Collections of Poetry displaying Idealism*
- A Collection of 20th Century Drama on Social Themes*
- A Critical appraisal of literature on Mythological Themes*

Note: i) Write your answers in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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6.3.2 LITERATURE OF SPECIFIC LANGUAGES DISPLAYING SPECIFIC THEMES

The literature of a specific languages is classified with that particular literature. The sub-divisions of individual literatures (Table-3) provide provision for adding the notation for specific themes at the following places:

- 08 Collections
Add to -080 notation 01 - 99 from Table-3A
- 09 History, description, critical appraisal
- 091 - 099 Literatures displaying specific features or emphasizing subject values, and for and by specific kinds of persons
Add to -09 notation 1 - 9 from Table-3A

Let us try some examples:

a) *Collection of Hindi Literature with Love Theme*

- 891.43 Hindi Literature
 - 08 Collections (Table-3)
(Add to -080 notation 01 - 99 from Table-3A)
 - 354 Love (Table-3A)
- $891.43 + 08 + 354 = 891.430\ 835\ 4$

b) *Critical Study of Characters in English Literature*

- 82 English Literature
 - 09 History, Description, Critical Appraisal (Table-3)
 - 27 Characters (Table-3A)
- $82 + 09 + 27 = 820.927$

c) *Critical Appraisal of Russian Literature ana Children*

- 891.7 Russian Literature
 - 09 Critical Appraisal (Table-3)
 - 9282 Children (Table-3A)
- $891.7 + 09 + 9282 = 891.709\ 928\ 2$

Self-check Exercise - 9

Classify the following titles:

- a) *Critical appraisal of supernatural themes in Japanese Literature*
- b) *Nationalism in Bengali Literature*
- c) *Critical Appraisal of English Literature for Adolescents*
- d) *A Collection of English Literature by authors of Communist countries*

Note: i) Write your answers in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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6.3.3 SPECIFIC FORM OF A LITERATURE DISPLAYING SPECIFIC THEME

Works dealing with a specific form of a literature are classified with that particular literature. The sub-divisions of individual literature (Table-3) provides necessary instructions at each form division (-1 to -8) for using Table-3A. For example :

- 1 Poetry
- 1008 Collections of Poetry by more than one author from more than one period
Add to -10080 notations 1 - 9 from Table-3A

a) *Depiction of India in Victorian Fiction*

- 823 English Fiction
- 31 - 39 Fiction for specific periods (Table-3)
- 8 Victorian period, 1837 - 1900
Instruction to add to -09 numbers following 10 in 1001 - 1009 at -31 -391
- 1009 History, description, critical appraisal for more than one period
- 09 Number following 10 in 1009
- 32 Places (Table-3A)
Add "Areas" notation 1 - 9 from Table-2.
- 54 India (Table-2)

$$823 + 8 + 09 + 32 + 54 = 823.809 325 4$$

b) *Critical appraisal of Punjabi satirical Poetry by the Writers living in U.K.*

- 891.42107 Satirical Poetry (Punjabi)
- 09 Critical Appraisal (Table-3)
Instruction to add to 09 notations 1 - 9 from Table-3A
- 93 - 99 For and by persons resident in specific continents, countries, localities
Add Areas notation 3 - 9 from Table-2 to -9
- 41 UK (Table-2)

$$891.42 + 107 + 09 + 9 + 41 = 891.421 070 994 1$$

c) *History of 20th Century English Poetry depicting realism* 821.910 912

- 821 English Poetry
- 11 - 19 Poetry for specific periods (Table-3)
- 91 20th century (Period Table at 820)
- 09 History (from 1009 Table-3)
- 12 Realism (Table-3A)

$$821 + 91 + 09 + 12 = 821.910 912$$

Self-check Exercise - 10

Classify the following titles :

- a) *Abstract concepts in German Fiction*
- b) *Collection of Victorian English Poetry for Youngmen*
- c) *Collection of Contemporary Urdu Poetry by Youngmen*
- d) *A Collection of Western fiction in America written by writers living in UK*
- e) *Contemporary Telugu Poetry written by Poets living in USA : An Anthology*

- Note: i) Write your answers in the space given below.
 ii) Compare your answers with those given at the end of this Unit.

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6.3.4 SPECIAL ASPECTS OF THEATRE

Table-3A finds its use in the Class 792 Theatre - for the obvious relation between literature and Theatre.

- 792.0909 Special Aspects (Theatre)
 Add notations 1 - 3 from Table-3A to base number 792.0909
 You find centred heading at
- 792.1 - 792.8 Specific kinds of Dramatic performance
 Add to each sub-division identified by the numbers following 792 in 792.01 - .09

Examples:

- a) *Treatment of technical themes in Theatre*

$$792.0909 \text{ Theatre} + 356 \text{ Technical Themes (Table-3A)} = 792.090 \ 935 \ 6$$

- b) *Theatrical Characters : A Study*

$$792.0909 \text{ Theatre} + 27 \text{ Characters (Table-3A)} = 792.090 \ 927$$

792.1 - 792.8 Specific kinds of dramatic performance
 The sub-divisions under this can further be sub-divided by 792.04 - .09
 Since we can use Table-3A with 792.07, the numbers 792.1 - 792.8 marked with dagger. This can be extended with the numbers from Table-3A through 792.0909

See the following aspects :

Special aspects of Tragedy Theatre

792.1 Tragedy and serious drama

$$792.1 + 0909 \text{ (from 792.0909)} = 792.1 \ 090 \ 9$$

Special Aspects of melodrama Theatre

792.27 + Melodrama

$$792.27 + 0909 \text{ (From 792.0909)} = 792.270 \ 909$$

Examples :

- a) *Dialogues in a Comedy Play*

$$792.23 + 0909 + 26 \text{ (Table-3A)} = 792.230 \ 909 \ 26$$

- b) *Social Themes in Comedies*

$$792.23 + 0909 + 355 \text{ (Table-3A)} = 792.230 \ 909 \ 355$$

Caution: The use of notation from Table-3A to 792.0909 is restricted to 1 - 3.

Self-check Exercise - 11

Classify the following titles:

- a) *Theatrical Dialogues*
- b) *Treatment of literary themes in Theatre*
- c) *Treatment of moral qualities in Theatre*
- d) *Dialogues in a Historical Drama*
- e) *Treatment of friendship in Theatre*
- f) *Idealism in the staging of serious drama*
- g) *A study of Theatrical romanticism*

Note: i) Write your answers in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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6.4 SUMMING UP

In this Unit we have introduced you to the use of Table-3. We have used these tables for number building in various subjects. Table-3 and its supplement-3A is used mainly for the literatures of specific languages 810 - 890.

6.5 ANSWERS TO SELF CHECK EXERCISES

1. a) 852
b) 861
c) 894.811 3
d) 891.441
e) 891.463 01

2. a) 842.4
b) 812.3
c) 895.623
d) 882.052 31
e) 813.4
f) 823.7
g) 813.4
h) 821.9
i) 821.4
j) 821.1
k) 821.7
l) 821.2

3. a) 891.433 4
b) 891.443
c) 894.827 16
d) 894.827 37
e) 891.423 5
f) 891.443 5
4. a) 809.104
b) 808.800 31
c) 808.812
d) 808.859 22
e) 809.241
5. a) 891.109
b) 894.827 090 04
c) 891.430 900 7
d) 840.900 5
e) 891.439 090 04
6. a) 894.827 301 05
b) 891.441 030 3
c) 894.827 308 760 09
d) 895.110 08
e) 891.210 09
7. a) 863.309
b) 821.808
c) 894.827 170 9
d) 891.421 070 9
e) 891.439 170 8
8. a) 808.801 3
b) 808.819 13
c) 808.829 355
d) 809.927
9. a) 895.609 37
b) 891.440 935 8
c) 820.992 84
d) 820.992 84
e) 820.809 171 7
- 10.a) 833.093 8
b) 821.808 092 836
c) 891.439 080 928 36
d) 813.087 409 941
e) 894.827 170 809 73
- 11.a) 792.090 926
b) 792.090 935 7
c) 792.090 935 3
d) 792.140 909 26
e) 792.090 935 3
f) 792.109 091 3
g) 792.090 914 5

6.6 ASSIGNMENT

1. Take 20 books from literature class of modern Indian language from your Library (or any Library) and construct class numbers co-extensive with content of the work. Use DDC 19th edition.
2. Take 10 books in English literature from your library (or any library in your locality) and assign class numbers according to DDC 19th edition.
3. Compare Sub-divisions of individual literatures (Table-3 and 3A) in DDC 19th edition with those of 18th edition.

6.7 RECOMMENDED BOOKS

Batty, C.D. *An introduction to the Nineteenth edition of the Dewey Decimal Classification*. London : Clive Bingley, 1981.

Library Classification Practice (BLS-3P) / edited by G.S.Rao. New Delhi : IGNOU, 1989.
(Units 3-7 of block 1B)

Dewey Decimal Classification and Relative Index. 19th ed. / Benjamin A. Custer. Albany. (NY) : Forest Press, 1979. Vol.I : Introduction.

Dhyani, Pushpa. *Dhyani's Guide to Dewey Decimal Classification*. New Delhi : Metropolitan, 1985.

Manual on the use of the Dewey Decimal Classification : 19th edition. New York : Forest Press, 1982.

Satija, M.P. and Comaromi, John P. *Introduction to the Practice of Dewey Decimal Classification*. New Delhi : Sterling, 1987.

6.8 GLOSSARY

Form : A mode of literary expression. It forms a basis for division of literatures of specific languages. e.g. poetry, drama, fiction, etc.

Sub-divisions of Individual literatures, Table-3 : A table of notations designating regularly recurring topics applicable to any literature. The topics covered include poetry, drama, fiction, essays, etc.

Sub-divisions of Individual Languages, Table-4 : A table of notations designating regularly recurring topics applicable to any language. The topics covered are etymology, dictionary, grammar, etc.

UNIT-7 : USE OF TABLES 4 TO 7

Contents

- 7.0 Aims and Objectives
- 7.1 Introduction
- 7.2 Use of Table-4
- 7.3 Use of Table-6
 - 7.3.1 Adding Notation from Table-6 to Schedule Number
 - 7.3.2 Adding Notation from Table-6 and Table-2 to Schedule Number
 - 7.3.3 Use of Table-4 and 6 Together
- 7.4 Use of Table-5
 - 7.4.1 Using Table-5 on Instruction in the Schedules
 - 7.4.2 Using Table-5 through other Tables
 - 7.4.3 Extending Table-5 notation from Table-2
- 7.5 Use of Table-7
 - 7.5.1 Using Table-7 as per instructions in Schedules
 - 7.5.2 Using Table-7 through Standard sub-divisions
 - 7.5.3 Using Table-7 in conjunctions with other Tables
- 7.6 Summing Up
- 7.7 Model Answers
- 7.8 Assignment
- 7.9 Recommended Books
- 7.10 Glossary

7.0 AIMS AND OBJECTIVES

In this Unit we introduce you to the use of Tables 4 to 7. You have to use these tables as per instructions in the Schedules and Tables.

After studying this Unit you will be able to :

- identify the places in the schedules and auxiliary tables requiring the use of Tables 4 to 7
- make use of Table-4 in classifying works on Linguistics
- make use of Table-5 in extending the class numbers in the Schedules;
- make use of Table-6 in extending the class numbers in the Schedules and auxiliary tables; and
- make use of Table-7 in extending the class numbers in the Schedules and auxiliary tables.

7.1 INTRODUCTION

In previous three units we have introduced you to Table-1 Standard sub-divisions (Unit-4), Table-2: Areas (Unit-5) and Table-3: Sub-divisions of individual literatures (Unit-6). This Unit deals with the remaining four auxiliary tables:

Table-4 : Subdivisions of Individual Languages

Table-5 : Racial, ethnic, national groups

Table-6 : Languages

Table-7 : Persons

Unlike Tables 1 and 2, these tables are not frequently used in number building process. Table-4 is used for the main class 400 Languages. Where as Tables 5, 6 and 7 are used as per instructions in the schedules and auxiliary tables.

7.2 USE OF TABLE-4 : SUB-DIVISIONS OF INDIVIDUAL LANGUAGES

Table 4 : Sub-divisions of Individual Languages can be defined as "A Table of notations designating regularly recurring topics applicable to any language. May be added, as directed, to individual languages in 420 - 490." The summary of the Table gives you an idea of the nature and its contents:

- 1 Written and spoken codes of the standard form of the language
- 2 Etymology of the standard form of the language
- 3 Dictionaries of the standard form of the language
- 5 Structural system (Grammar) of the standard form of the language
- 7 Nonstandard forms of the language
- 8 Standard usage of the language (Applied Prescriptive Linguistics)

Instructions to combine these numbers and their sub-divisions are provided in the schedule under 420 - 490.

i) Using Table-4 Notation :

Under each language identified by *(Asterisk), add "Sub-divisions of Individual languages" notation-01 - 86 from Table-4 to the designated base number.

Below Table showing the use of different notation from Table-4 with different base numbers will give you an idea of its use :

Language	Base Number	Etymology -2	Dictionary -3	Grammar -5	Readers -86
English	42	422	423	425	428.6
German	43	432	433	435	438.6
French	44	442	443	445	448.6
Latin	47	472	473	475	478.6
Sanskrit	491.2	491.22	491.23	491.25	491.258 6
Marathi	491.46	491.462	491.463	491.465	491.468 6
Telugu	494.827	494.827 2	494.827 3	494.827 5	494.827 86

The general instruction for the use of notations of Table - 4 is given under 420 - 490 specific languages, which states, 'under each language identified by*, add "Subdivisions of Individual languages" notation 01 - 86 from Table-4 to designated base number...' It means in this table too before using the notations of Table-4 the classifier should verify whether or not a specific languages enumerated under 420 - 490 is identified by asterisk.

For example :

a) *English Grammar*

- 420 English and Anglo-Saxon Languages
42 Base Number for English
Grammar is a linguistic aspect whose number is to be taken from Table-4
5 Structural System (Grammar) of the standard form of the language (Table-4)

$$42 \text{ (Base Number)} + 5 \text{ (Table-4)} = 425.$$

b) *Marathi Grammar*

$$491.46 \text{ (Marathi)} + 5 \text{ Grammar (Table-4)} = 491.465$$

c) *Marathi Dictionary*

$$491.46 + 3 \text{ Dictionary (Table-4)} = 491.463$$

d) *A Dictionary of Korean language*

$$495.7 \text{ Korean language} + 3 \text{ Dictionary (Table-4)} = 495.73$$

ii) Instances where Table-4 notation cannot be used:

A number in 420 - 490 without an asterisk (*) cannot be extended by Table-4. For example:

e) *Grammar of Assamese Language*

The number for Assamese language proper is 491.45. It is not an asteriskal number. The notation for grammar from Table-4 cannot be added. So the Class number for the above title is 491.45.

f) *Grammar of Romany (Gypsy) language* 491.499

g) *Etymology of Kashmiri language* 491.499

iii) Extending Table-4 Notation from Table-6

The following subdivisions in Table-4 can be further extended by notation from Table-6.

- 32 -39 Bilingual Dictionaries
-824 Structural approach to expression for those whose native language is different
-834 Audio-lingual approach to expression;
For those whose national language is different
-864 Readers - For those whose native language is different

At the above language elements instructions are provided to add "Language" notation 2 - 9 from Table-6. We will deal with such examples of using Table-4 and 6 together in the next Section 7.3.

Self Check Exercise - 1

Classify the following titles :

- a) *Grammar of Punjabi Language*
b) *A study of words of Sanskrit language*
c) *Punctuation in Telugu Language*

- ❖ *Bengali Paleography*
- e) *Readers of Telugu Language*
- f) *A study of words of Bengali Language*
- g) *Vocabulary of Sanskrit Language*
- h) *Readers of Marathi Language*
- i) *Structural system of the Telugu Language*

Note: i) Write your answers in the space given below.
 ii) Compare your answers with those given at the end of this Unit.

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7.3 USE OF TABLE-6 : LANGUAGES

Table-6 Languages can be defined as "A Table of notations designating specific languages. Applied to other notations in the schedules and tables through use of add notes. Used where topics were formerly divided like 420 - 490 to indicate language".

The summary of Table-6 is reproduced below:

- 1 Indo-European (Indo-Germanic) Languages
- 2 English and Anglo-Saxon Languages
- 3 Germanic (Teutonic) Languages
- 4 Romance Languages
- 5 Italian, Romanian, Rhaeto-Romanic
- 6 Spanish and Portuguese
- 7 Italic Languages
- 8 Hellenic Languages
- 9 Other Languages

Each of the above divisions has been further subdivided hierarchically.

For example, the language family, -6 Spanish and Portuguese has been divided as follows :

- 6 Spanish and Portuguese
- 61 Spanish
- 67 Judeo-Spanish (Ladino)
- 68 Papiamento
- 69 Portuguese including Galician (Gallegan)

Table-6 is to be used to extend any number from the schedule or even from the tables only on "add to", instruction. For example:

7.3.1 ADDING NOTATION FROM TABLE-6 TO SCHEDULE NUMBER

Examples:

a) *Bible in Telugu*

220.53 - .59 Bible in other languages
Add "Language" notation 2 - 9 from Table-6 to base number 220.5
94827 Telugu (Table-6)
 $220.5 + 94827 = 220.594\ 827$

Similarly,

b) *Bible in Russian Language* 220.591 71

220.5 (Bible) + 9171 Russian (Table-6) = 220.591 71

c) *Bible in German Language*

220.5 + 31 German (Table-6) = 220.531

d) *General encyclopedia in Kannada*

039 General Encyclopaedias in Other languages
Add "Language" notation 2 - 9 from Table-6 to base number 039
91814 Kannada (Table-6)
 $039 + 94814 \text{ (Table-6)} = 039.948\ 14$

e) *General Encyclopedia in Tamil*

039 + 94811 Tamil (Table-6) = 039.948 11

f) *General serials in Italian*

055 General serial publications in Italian, Romanian, Rhaeto-Romanic Language
Add "Languages" notation 51 - 59 from Table-6 to base number 05
51 Italian Language (Table-6)
 $05 + 51 = 055.1$

g) *A general periodical in Telugu*

059 General serial publications in other languages
Add "Language" notation 2 - 9 from Table-6 to base number 059
94827 Telugu (Table-6)
 $059 + 94827 \text{ (Table-6)} = 059.948\ 27$

Self Check Exercise - 2.

Classify the following titles:

- a) *Papiamento Language encyclopaedia*
- b) *General encyclopaedia in Marathi Language*
- c) *Bible in Bengali Language*
- d) *Bibliographies of Works of German*
- e) *German as a foreign language in elementary schools*
- f) *Hindi proverbs*
- g) *Sanskrit Calligraphy*
- h) *A general periodical in Romanian Language*
- i) *A social study of Marathis*

Note: i) Write your answers in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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7.3.2 ADDING NOTATION FROM TABLE-6 AND TABLE-2 TO SCHEDULE NUMBER

At certain class numbers in the schedules you find instructions to add notation from Table-6 and then areas notation from Table-2 with an interposing zero.

305.7 Social stratification (social structure) of language groups
Add "Languages" notation 1 - 9 from Table-6 to base number 305.7,
e.g., English-speaking people 305.721; then add 0 and to the result add "Areas" notation
1 - 9 from table-2, e.g. English-speaking people in South Africa 305.721068.

Examples:

- a) *Social Status of Tamilians in Srilanka*
305.7 Social stratification of language groups
94811 Tamilians (Table-6)
0 Interposing zero
5493 Srilanka (Table-2)

$$305.7 + 94811 + 0 + 5493 = 305.79481105493$$

b) *French-speaking people in England* 305.741 042

305.7 Social stratification

41 French (Table-6)

0 Interposing zero

42 England (Table-2)

$$305.7 + 41 + 0 + 42 = 305.741\ 042$$

7.3.3 USE OF TABLE 4 AND 6 TOGETHER

i) Bilingual Dictionaries:

We have learnt how to classify a dictionary of a specific language using Table-4. Bilingual dictionary deals with two different languages. For example, English-Hindi dictionary is a bilingual dictionary gives the words of English translated into Hindi. DDC instructs us to use number for one language from 420 - 490 and for another language, notations of Table-6 are to be used. We find such instructions in Table-4 : Sub-divisions of individual languages.

32 - 39 Bilingual Dictionaries (Table-4)
Add "Languages" notation 2- 9 from Table-6 to -3,
e.g. dictionaries of the English language 321;
e.g. French and English Dictionary 443.21

In essence, the formula for number building of bilingual dictionaries is :

$$\text{Base Number} + 3 \text{ (Table-4)} + 2 - 9 \text{ (Table-6)}$$

In the above formula, base number is a language number and again 2 - 9 (Table-6) also a language number. Then how to determine first and second language in bilingual dictionary?

The instructions under -32 -39 (Table-4) give us two provisions:

(1) Class a bilingual dictionary with the language in which it will be the more useful, e.g. most libraries in English-speaking regions will find English-French dictionaries most useful classed with French in 443.21, Chinese - French dictionaries with Chinese in 495.1341.

(2) If classification with either language is equally useful, class with the language coming later in the sequence 420 - 490, e.g., French - German dictionaries 443.31.

Examples:

a) *Chinese - English Dictionary* 495.132 1

495.1 Chinese

3 Dictionary (Table-4)

21 English (Table-6)

$$495.1 + 3 + 21 = 495.132\ 1$$

b) *Telugu - Malayalam Dictionary* 494.812 394 827

494.812 Malayalam

3 Dictionary (Table-4)

94827 Telugu (Table-6)

$$494.812 + 3 + 94827 = 494.812\ 394\ 827$$

(It will be more useful if classed with Malayalam)

c) *Spanish - Latin Dictionary* 473.61

47 Spanish (base number)

3 Dictionary (Table-4)

61 Latin (Table-6)

(Latin 470, Spanish 460; Latin comes later in the sequence; So classed with Latin)

ii) **Language Works for those whose native language is different:**

As per instructions Table-6 is also used with the following sub-divisions in Table-4:

-24 Foreign elements

-824 Structural approach to expression for those whose native language is different

-834 Audio-lingual approach to expression for those whose native language is different

-864 Readers (Primers) for those whose native language is different

Examples:

a) *German Phrases in English Language*

42 English (base number)

24 Foreign Elements (Table-4)

Add "Languages" notation 1 - 9 from Table 6 to -24

31 German (Table-6)

$42 + 24 \text{ (Table-4)} + 31 \text{ (Table-6)} = 422.431$

b) *German elements in French Language*

$44 + 24 \text{ (Table-4)} + 31 \text{ (Table-6)} = 442.431$

c) *English words in Urdu language*

$491.439 + 24 \text{ (Table-4)} + 21 \text{ (Table-6)} = 491.439 \ 242 \ 1$

d) *French words in Tamil Language*

$494.811 + 24 \text{ (Table-4)} + 41 \text{ (Table-6)} = 494.811 \ 244 \ 1$

Self Check Exercise - 3

Classify the following titles involving the simultaneous use of Tables 4 and 6 :

a) *Sanskrit - German Dictionary*

b) *Russian - Punjabi Dictionary*

c) *Tamil - English Dictionary*

d) *French Phrases in English Language*

e) *English Words in Telugu Language*

f) *Telugu words absorbed in Urdu Language*

g) *Learning German through English*

h) *Chinese words and phrases used in English*

i) *English primer for Hindi speaking readers*

j) *Audio-lingual approach to French for Tamil speaking learners*

Note: i) Write your answers in the space given below.

ii) Compare your answers with those given at the end of this Unit.

Examples:

a) *Psychology of Negroids*

155.8 Ethnopsychology and national psychology

155.84 Specific racial and ethnic groups

Instructions are given to add to the base number 155.84, the number from Table-5

036 Negroids (Table-5)

$$155.84 + 036 = 155.840\ 36$$

Similarly,

b) *Psychology of Bengalis*

$$155.84 + 9144 \text{ Bengalis (Table-5)} = 155.849\ 144$$

c) *A social study of Bengalis*

$$305.8 + 9144 \text{ (Table-5)} = 305.891\ 44$$

d) *Social Welfare problems to young Russians*

362.797 (Problems of service to) Young People of Various specific racial, ethnic, national groups

$$362.797 + 9171 \text{ Russian (Table-5)} = 362.797\ 917\ 1$$

e) *Russian Cookery*

$$641.592 + 9171 \text{ Russian (Table-5)} = 641.592\ 917\ 1$$

f) *Japanese Dishes*

$$641.592 + 956 \text{ Japanese (Table-5)} = 641.592\ 956$$

g) *Chinese method of preparing food*

$$641.592 + 951 \text{ Chinese (Table-5)} = 641.592\ 951$$

h) *Gypsy Music*

$$781.72 + 91497 \text{ Gypsies (Table-5)} = 781.729\ 149\ 7$$

7.4.2 USING TABLE-5 THROUGH OTHER TABLES

i) Table-5 : Racial, Ethnic, National groups (Volume 1: p.408) at the beginning paragraph made provision for using its numbers through the inter-position of "standard sub-divisions" notation -089 from Table-1 with any number from the schedules; and they may also be used when so noted with numbers from other tables, e.g. "Areas" notation -174 from Table-2.

ii) Another provision to use Table-5 notation is given in Table-3A at 8 Literatures for and by various specific, racial, ethnic, national groups.

i) Using Table-5 through Standard Sub-division

The 19th edition of DDC has made provision for freely using Table-5 through Standard Sub-division (Table-1) notation -089.

-089 Treatment among specific, racial, ethnic, national groups

Add "Racial, Ethnic, National groups" notation 01 - 09 from Table-5 to base number -089.

Examples:

a) *Child labour among Indians*

331.31 Child labour
089 Treatment among r.e.n. groups (Table-1)
91411 Indians (Table-5)
 $331.31 + 089 + 91411 = 331.310\ 899\ 141\ 1$

b) *Development of Cricket among Pakistanis*

796.358 Cricket
089 Treatment among r.e.n. groups (Table-1)
91412 Pakistanis (Table-5)
 $796.358 + 089 + 91412 = 796.358\ 089\ 914\ 12$

c) *Reading habits of Indians*

028.9 Reading habits
089 Treatment among r.e.n. groups (Table-1)
91411 Indians (Table-5)
 $028.9 + 089 + 91411 = 028.908\ 991\ 411$

ii) **Using Table-5 through Table-2 Notation -174**

Provision to use Table-5 has been made at the following place in Table-2:

-174 Regions where specific racial, ethnic, national groups predominate.
Add "Racial Ethnic, National Groups" notation 01 - 99 from Table-5 to the base number -174
e.g. regions where Arabs predominate -174927

For example:

a) *Rate of Women education in the regions where Arabs predominate*

376.9 Women education
174 Regions where r.e.n. groups predominate (Table-2)
927 Arabs (Table-5)
 $376.9 + 174 + 927 = 376.917\ 492\ 7$

iii) **Using Table-5 through Table-3A**

Provision for using Table-5 through Table-3A has been made in DDC 19

8 Literature for and by various specific, racial, ethnic, national groups (Table-3A)
Add "Racial, Ethnic, National Groups" notation 03 - 99 from Table-5 to 8
e.g. literature by Africans and persons of African descent 896.
Here -96 Africans taken from Table-5

Examples:

a) *A collection of American poetry composed by Bengalis*

81 American literature (Base number)
10080 Collection of poetry (Table-3)
8 Literatures for and by r.e.n. groups (Table-3A)
9144 Bengalis (Table-5)
 $81 + 10080 + 8 + 9144 = 811.008\ 089\ 144$

7.4.3 EXTENDING TABLE-5 BY NOTATION FROM TABLE-2

There are two methods of extending Table-5 by notation from Table-2 "Areas".

- i) Extending Table-5 using zero as a facet indicator; and
- ii) Directly extending Table-5 by Table-2 through Instructions

i) Extending Table-5 using zero as a facet Indicator:

Instructions to extend Table-5 using zero as a facet indicator are provided at the beginning (para 2) of Table-5.

The instruction reads "Except where the schedules instruct otherwise, and unless it is redundant, add 0 to the number from this table and to the result add 'Areas' notation 1 - 9 from Table-2."

31 Germans from Table-5
0 Facet Indicator
81 Brazil (Table-2)
 $31 + 0 + 81 = -31081$ Germans in Brazil

Similarly,

Indians in US -01411073
 91411 Indians (Table-5) + 0 + 73 USA (Table-2) = -91411073

Examples :

a) *A social study of Indians in the United States*

305.8 Social stratification
91411 Indians (Table-5)
0 Facet indicator
73 USA (Table-2)
 $305.8 + 91411 + 0 + 73 = 305.891\ 411\ 073$

b) *A social study of Canadian nationals in India*

$305.8 + 11$ Canadians (Table-5) + 0 + 54 India (Table-2) = 305.811 054

c) *Relation of State to Indians in England : A Political Study*

$323.11 + 91411$ (Table-5) + 0 + 42 England (Table-2) = 323.119 141 104 2

d) *Labour of Indian Origin in UK*

$331.11 + 91411$ (Table-5) + 0 + 41 UK (Table-2) = 331.119 141 104 1

e) *Education of United States blacks in England*

$371.97 + 13$ US blacks (Table-5) + 0 + 42 (Table-2) = 371.971 304 2

f) *Education of Russians in Andhra Pradesh*

$371.97 + 9171$ Russians (Table-5) + 0 + 5484 A.P. (Table-2) = 371.979 171 054 84

g) *Preparing Russian dishes in India*

$641.592 + 9171$ (Table-5) + 0 + 54 (Table-2) = 641.592 917 105 4

ii) **Directly Extending Table-5 by notation from Table-2 :**

At the following divisions in Table-5, instructions are provided to add "Arcas" notation from Table-2 to base number...

- 687 -688 National Groups of Spanish Americans
- 9275 -9276 National Groups of Arabs
- 96073 United States Blacks (Afro-Americans)
- 966 -968 National Groups in Africa
- 969 Other National Populations of largely African descent

For example number for Iraquis nationals can be constructed like this:

927 National Groups of Arabs (Table-5)

567 Iraq (Table-2)

$$927 + 567 = -927567$$

Examples:

a) *Psychology of Iraquis Nationals*

$$154.84 + 927 \text{ (Table-5)} + 567 \text{ (Table-2)} = 155.84 \ 927 \ 567$$

b) *Iraquis Cookery*

$$641.84 + 927567 = 641.849 \ 275 \ 67$$

Self Check Exercise - 5

Classify the following titles:

- a) *Psychology of Nepalis*
- b) *Folk Songs of Punjabis*
- c) *Folk Songs of Dutchs*
- d) *A social study of Americans*
- e) *Social problems of South Asians*
- f) *Chinese Cookery*
- g) *Migrant Labour of Srilanka Origins in Tamilnadu*
- h) *Education of Indian Children in UK*
- i) *Relation of State to Indian Minority in UK*
- j) *Preparing Russian Dishes in England*
- k) *Relation of State to Jews in Germany*

Note: i) Write your answers in the space given below.

ii) Compare your answers with those given at the end of this Unit.

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7.5.1 USING TABLE-7 AS PER INSTRUCTIONS IN THE SCHEDULES

At certain class numbers in the schedules instructions are provided to use Table-7 : Persons. The instructions given are as follows:

Add "Persons" notation 09 - 99 from Table-7 to base number ...

For example,

- 704.04 - .87 Treatment among other groups of specific kinds of persons
- 390.4 Customs of people of various specific occupations (Table-7)
- 305.6 (Social Stratification) Adherents of religious groups

Examples:

a) *Customs of Lawyers*

- 390.4 Customs of people of specific occupations
- 344 Lawyers (Table-7)

$$390.4 + 344 = 390.434 4$$

b) *Customs of encyclopaedists*

$$390.4 + 093 \text{ Encyclopedists (Table-7)} = 390.409 3$$

c) *Customs of dramatists*

$$390.4 + 82 \text{ Dramatists (Table-7)} = 390.482$$

d) *Greek Artists*

$$704 + 292 \text{ Greek (Table-7)} = 704.292$$

e) *Air officials as artists*

$$704 + 358 \text{ (Table-7)} = 704.358$$

Self Check Exercises - 6

Classified the following subjects inviting Table-7 :

- a) *Ethics of Library & Information Science Profession*
- b) *Moral lessons for politicians*
- c) *Bibliographies for children*
- d) *Customs of Doctors*
- e) *Customs of Library & Information Science Profession*
- f) *Social status of Muslims*
- g) *Social problems of Muslims in Nepal*
- h) *Hindu Artists*
- i) *Social customs of Teachers*
- j) *Reading and use of other information media by School children*

Note: i) Write your answers in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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7.5.2 USING TABLE-7 THROUGH STANDARD SUBDIVISION

Provision was made to use Table-7 persons through standard sub-division (Table-1) notation -024 and -088. We find the specific instructions to such provision as follows:

- i) -024 Works for specific types of users
Add "Persons" notation 03 - 99 from Table-7 to base number -024
e.g. Works for Engineers -02462

$$024 \text{ (Table-1)} + 62 \text{ Engineers (Table-7)} = -02462$$

Examples:

- a) *Statistics for Lawyers* 310.243 44

31 Statistics (base number)

024 Works for specific types of users (Table-1)

344 Lawyers (Table-7)

$$31 + 024 + 344 = 310.243 44$$

- b) *Mathematics for Engineers* 510.246 2

$$51 + 024 \text{ (Table-1)} + 62 \text{ (Table-7)} = 510.246 2$$

- c) *Psychology for Doctors*

$$15 + 024 \text{ (Table-1)} + 61 \text{ Doctors (Table-7)} = 150.246 1$$

- ii) -088 Treatment among groups of specific kinds of persons

Add "Persons" notation 04 - 99 from Table-7 to base number -088, e.g. Subject among adolescents

088 Treatment among groups of specific kinds of persons

055 Adolescents from Table-7

$$088 + 055 = -088055$$

Examples:

a) *Painting of Historical events by adults*

$$756 + 088 \text{ (Table-1)} + 056 \text{ Adults (Table-7)} = 756.088\ 056$$

b) *Cartoons drawn by Adults*

$$741.5 + 088 \text{ (Table-1)} + 056 \text{ Adults (Table-7)} = 741.508\ 805\ 6$$

c) *Circulation services to blind in Libraries*

$$025.6 + 088 \text{ (Table-1)} + 08161 \text{ Blind (Table-7)} = 025.608\ 808\ 161$$

d) *Contribution to Surgery by Muslims*

$$617 + 0088 \text{ (Table-1)} + 2971 \text{ Muslims (Table-7)} = 617.008\ 829\ 71$$

(note : 617 Surgery and related topics; 001 - 008 Standard Sub-divisions.)

e) *Loans for higher education to low-income groups*

$$378.362 + 088 \text{ (Table-1)} + 0624 \text{ (Table-7)} = 378.362\ 088\ 062\ 4$$

Self Check Exercise - 7

Classify the following titles involving the use of Table-7 through the Standard Sub-division -088:

- a) *Paintings of flowers by females*
- b) *Reading habits of social scientists*
- c) *Cookery by Adults*
- d) *Paintings by school children*
- e) *Eating and drinking customs of adults*
- f) *User services to Deaf people in college libraries*
- g) *Leather handicrafts by blind persons*
- h) *Contributions to Music by Adults*
- i) *Folk Art by adults*
- j) *Geometry for interior decorators*
- k) *Mathematics for Physicists*
- l) *Chemistry of Pharmacologists*

Note: i) Write your answers in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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6.7.3 USING TABLE-7 IN CONJUNCTION WITH OTHER TABLES

Table-7 can also be used in conjunction with the tables, namely, Table-2 and Table-3A.

i) Use of Table-7 in conjunction with Table-2

The instance of using Table-7 in conjunction with Table-2 is seen in the following place:

-1762 -1769 (Socio economic regions) (Table-2) Other regions
Add to base number -176 the numbers following 29 in "Persons"
notation 292 - 299 from Table-7
e.g. regions where Islam Predominates -17671

The number for '*Regions where Islam predominates*' is derived like this:

$-176 + 71$ (Number following 29 in 2971 in Table-7) = -17671

Above notation may be added where there is need to add 'Areas' notation from Table-2 to any class number in the schedules.

Examples:

a) *Economic condition in Jainism countries*

$330.9 + 176$ (Table-2) + 44 (From 2944 Table-7) = 330.917 644

(Under 330.9 we are asked to add Area notation 1-9 from Table-2)

b) *Economic conditions in Chinese countries*

$330.9 + 176$ (Table-2) + 951 (From 29951 in Table-7) = 320.917 695 1

c) *Wages in Islamic countries*

$331.29 + 176$ (Table-2) + 71 (From 2971 in Table-7) = 331.291 767 1

ii) Use of Table-7 in conjunction with Table-3A:

The instances of using Table-7 in conjunction with Table-3A arise at the following places:

-352 Specific kinds of persons
Add "Persons" notation 03 - 99 from Table-7 to 352

-9204 -9279 (Literature for and by specific kinds of persons) of specific occupational and non-occupational characters
Add "Persons" notation 04 - 79 from Table-7 to 92

-929 Occupied with geography, history related disciplines
Add "Persons" notation 9 from Table-7 to 92

Examples:

- a) *Treatment of police officials in English Drama*
82 (base number for English literature) + 200 (Table-3) +
80 (as instructed under 1-9 from Table-3) + 352 (Table-3A) + 3632 (Table-7)
= 822.008 035 236 32
- b) *Collection of English poetry composed by professional Historians*
82 + 10080 (Table-3) + 92 (Table-3A) + 97 (Table-7) = 821.008.092 97

Self Check Exercise - 8

Classify the following titles involving the use to Table-7 through some other auxiliary tables:

- a) *Introduction to Journalism for social scientists*
- b) *Economic conditions in Muslim countries*
- c) *Political situation in Chinese countries*
- d) *Adult education in Buddhism Countries*
- e) *Collection of English poetry about Lawyers*
- f) *Portrayal of grand parents in English literature*
- g) *Telugu poetry by social scientists - A Collection*
- h) *Telugu fiction written by Muslim writers - A Critical Appraisal*

Note: i) Write your answers in the space given below.
ii) Compare your answers with those given at the end of this Unit.

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7.6 SUMMING UP

In this Unit we have introduced you to the use of tables 4 to 7. We have used these tables for number building in various subjects. Table-4 : Sub-divisions of Individual languages is mainly used in 420 - 290 dealing with specific languages. Table-4 is followed by Table-6 languages, which is applicable in many places in the Schedules. Bilingual dictionaries required the use of both tables 4 and 6 together. The use of Table-5 and 7 is not restricted to any class or subject exclusively but sparingly used on instruction at certain class numbers. You might have noticed that the last three tables (5, 6 and 7) are mainly used in the main classed 300 Social Sciences and 700 The Arts.

7.7 ANSWERS TO SELF CHECK ANSWERS

1. a) 491.463
b) 491.281
c) 494.827 152
d) 491.441 7
e) 494.827 84
f) 491.448 1
g) 494.282
h) 491.468 6
i) 494.827 5
2. a) 036.8
b) 039.914 6
c) 220.591 44
d) 011.231
e) 372.653 1
f) 398.991 43
g) 745.619 991 2
h) 055.91
i) 305.791 46
3. a) 491.233 1
b) 491.739 142
c) 423.948 11
d) 422.441
e) 498.827 242 1
f) 491.439 249 482 7
g) 438.642 1
h) 422.495 1
i) 428.649 143
j) 448.349 481 1
4. a) 028.908 991 411 042
b) 891.431 009 920 816 1
c) 891.439 170 892 51
d) 811.008 089 914 950 54
e) 331.880 899 510 41
f) 791.530 089 914 11
g) 811.008 089 141 1
h) 831.008 089 141 104 1
i) 297.860 899 144 044
j) 831.009 891 440 41
5. a) 155.849 149 5
b) 784.769 142
c) 784.763 931
d) 305.813
e) 305.891 4
f) 641.592 951
g) 331.639 141 305 482
h) 371.979 141 104 1
i) 323.119 141 104 1
j) 641.592 917 204 2
k) 323.119 240 43

6. a) 174.909 2
 b) 174.932 9
 c) 011.625 054
 d) 390.461
 e) 390.4092
 f) 305.697 1
 g) 305.697 105 496
 h) 704.294 5
 i) 390.437 2
 j) 028.535
7. a) 758.420 880 42
 b) 028.908 830 1
 c) 641.508 805 6
 d) 750.880 544
 e) 394.120 880 56
 f) 025.508 808 162
 g) 745.531 088 081 61
 h) 780.880 56
 i) 745.088 056
 j) 516.088 747
 k) 510.245 3
 l) 540.246 15
8. a) 070.024 301
 b) 330.917 671
 c) 320.917 695 1
 d) 374.917 643
 e) 821.008 035 234 4
 f) 820.803 520 432
 g) 894.827 100 809 230 1
 h) 894.827 300 935 229 71

7.8 ASSIGNMENT

1. How bilingual dictionaries are classified? Illustrate your answer with atleast ten examples covering different languages.
2. How tables 5, 6 and 7 are used at sub-divisions of social stratification 305.8, 305.7 and 305.6.

7.9 RECOMMENDED BOOKS

Batty, C.D. *An introduction to the Nineteenth edition of the Dewey Decimal Classification*. London : Clive Bingley, 1981.

Library Classification Practice (BLS-3P) / edited by G.S.Rao. New Delhi : IGNOU, 1989.
 (Units 3-7 of block 1B)

Dewey Decimal Classification and Relative Index. 19th ed. / Benjamin A. Custer. Albany. (NY) : Forest Press, 1979. Vol.I : Introduction.

Dhyani, Pushpa. *Dhyani's Guide to Dewey Decimal Classification*. New Delhi : Metropolitan, 1985.

Manual on the use of the Dewey Decimal Classification : 19th edition. New York : Forest Press, 1982.

Satija, M.P. and Comaromi, John P. *Introduction to the Practice of Dewey Decimal Classification*. New Delhi : Sterling, 1987.

7.10 GLOSSARY

Languages, Table-6 : A table of notations designating specific languages. These notations are applied to other notations in the schedules or tables through 'add' notes.

Persons, Table-7 : In the context of DDC, a table of notations designating persons by specific occupations and other classes.

Racial, ethnic, national groups (Table-5) : A table of notations designating specific racial, ethnic or national groups. The notations from this table is applied to other notations from schedules or auxiliary tables through 'add' through notes.

Sub-divisions of Individual Languages, Table-4 : A table of notations designating regularly recurring topics applicable to any language. The topics covered are etymology, dictionary, grammar, etc.

BRAOU

UNIT-8 : MULTIPLE SYNTHESSES AND THE ORDER OF PRECEDENCE

Contents

- 8.0 Aims and Objectives
- 8.1 Introduction
- 8.2 Multiple Synthesis
- 8.3 Examples of Multiple Syntheses
- 8.4 Citation Order and Order of Precedence
- 8.5 Table of Precedence
- 8.6 Order of Precedence Note
 - 8.6.1 Using Last Number
 - 8.6.2 Using Earlier Number
- 8.7 Fixing Priorities of Number
 - 8.7.1 By Number of Zeros in a Class Number
 - 8.7.2 Preferring Concrete Over the Abstract
- 8.8 Summing Up
- 8.9 Answers to Self-check Exercises
- 8.10 Assignments
- 8.11 Recommended Books
- 8.12 Glossary

8.0 AIMS AND OBJECTIVES

In this Unit we introduce you two concepts - multiple syntheses and order of precedence and their application in building complex numbers.

After studying this Unit you should be able to

- classify, books in complex subjects involving multiple syntheses;
- apply table of precedence for classifying complex subjects.

8.1 INTRODUCTION

DDC allows combination of numbers representing subjects or ideas in the case of multifaceted subjects and such a combination is called synthesis. Synthesis is done with the help of 'Add' device, facet indicator and the use of general aspects common to many subjects given under 'centered headings'. But these devices cannot be used freely unless there is a direction to do so under the concerned class number.

Generally classificationists suggest us to limit the synthesis to one addition, but there are instances where the subjects need more than one addition in the same class number. While discussing about the class number building practices in Unit-3, we have identified the following five basic types of syntheses.

- i) Combination of two main classes given in the Schedules;
- ii) Combination of main class with a part of another main class;
- iii) Combination of a main class with the parts of more than one main class;
- iv) Use of the general aspects common to many subjects listed under the centered headings here and there in the schedules; and
- v) Use of notation from one auxiliary table or combination of notation from two different tables with appropriate class numbers in the schedules.

In Unit-3 we have illustrated about the first four types with examples and the last type has been dealt thoroughly in Units 4-6. In this Unit we explain you classification of complex subjects involving multiple synthesis.

8.2 MULTIPLE SYNTHESIS

Multiple synthesis means the process of number building by the addition of more than one sub-division at a time from the schedules or tables or both. Classification of complex subjects requires the use of multiple synthesis. DDC has started using multiple synthesis from its 17th edition (1965 - 67).

A complex subject is one which brings out the relation between two subjects. Classification of documents dealing with such complex subjects requires the use of synthesis two or even three times in the same class number. Such works are inter-disciplinary in nature and are to be classed with the discipline receiving most emphasis and other ideas or subjects are also to be represented by combination of numbers. This is not a simple process as we come across many subjects and identification of the correct base number is a problem. Knowledge of the structure of the scheme and constant practice will help the classifier in deciding the right base number and tracing the right path to pick up the appropriate facets located in different classes / tables.

8.3 EXAMPLES OF MULTIPLE SYNTHESSES

We will illustrate the use of multiple syntheses with the help of few examples, where complex subjects are involved.

- a) *Administration of agricultural libraries*
- b) *Lok Sabha - the lower house of Indian parliament*
- c) *Costumes of Lawyers*
- d) *Animal pests of Wheat*
- e) *Veterinary anatomy of dogs*
- f) *Job opportunities in Agricultural extension work in India*
- g) *Photographing space flight*
- h) *Research on electrotherapy for arthritis*
- i) *Safety measures to be adopted in the architecture of school libraries*
- j) *Labour policy of the US Steel Corporation*

Example-1:

Administration of medical Libraries

There are two facets in this title : 'Library administration' and 'Medical library'. After scanning the schedules you find -

- 025.19 Administration of specific types of libraries
- 026 Libraries devoted to various specific disciplines and subjects

There is no direct number for medical library, but a class number for this specific subject can be built with the help of 'Add-to' instruction given under 026. Add 001 - 999 to base number 026. Hence

- 026 Libraries devoted to specific disciplines;
- 61 Medicine (Final zero ignored in 610)
- 026.61 Medical library

How to add these two class numbers : 025.19 and 026.61 ? You find an 'Add to' instruction under 025.19

- 025.19 Administration of specific types of libraries
Add to base number 025.19 the numbers following 02 in 026 - 027.

The Class Number for medical library is 026.61 and the number following 02 is 661. Now we can add this number (661) to 025.19.

$$025.19 + 661 = 025.19661 \text{ Administration of Medical Libraries}$$

Example - 2:

Lok Sabha - the lower house of Indian Parliament

Legislative bodies have been placed at 328, which is to be subdivided by area

- 328.54 Indian Parliament

Now, as per instructions under 328.4 - .9, we have to add the special subdivision enumerated there; Houses of Parliament fall under the subdivision 07, which is further to be subdivided like 328.31 - 328.35, the class number for Lower House is 328.32. Hence, we will add 2 to 07, and then 072 to 328.54. The complete class number then will be

$$328.54 + 072 = 328.54072$$

Example - 3 :

Costumes of Lawyers

The class number for costumes is 391

- 391.01 - .05 Costumes of specific economic, social, occupational classes
Add the number following 390 in 390.1 - 390.5 to the base number 391.0

- 390.4 Costumes of people of various specific occupations
There is another direction : Add 'persons' notation 09 - 99 from Table-7 to base number 390.4

- 4 Number following 390 in 390.4 is 4

- 344 Lawyers (Table-7 'Persons')

$$391.0 + 4 + 344 = 391.04344 \text{ Costumes of Lawyers}$$

Example-4 :

Animal pests of Wheat

- 633.11 *Wheat
The asterisk mark leads us, through foot note, to the centered heading 633-635
Specific plant crops

- 9 Injuries, diseases, pests (There is a further direction to "Add to" 9 the number following 632 in 632.1 - 632.9
632.6 Animal Pests

- 6 Number following 632 in 632.6 is 6

$$633.11 + 9 + 6 = 633.1196 \text{ Animal Pests of Wheat}$$

Example-5 :

Veterinary anatomy of dogs

636.7 Dog (Animal Husbandry)

636.701 - .708 General Principles
Add to base number 636.7 numbers following 636.0 in 636.01 - 636.08

636.089 Veterinary Sciences
Further instruction to Add to base number 636.089 the Number following 61 in 610 - 619

611 Anatomy (number following 61 is 1)

$$636.7 + 89 + 1 = 636.789 1$$

Example-6 :

Job Opportunities in Agricultural Extension Work in India

331.124 Job Vacancies (Openings, Opportunities)

331.1242 - .1249 Job Vacancies in extractive manufacturing, construction occupations
Add to 331.124 the number following 6 in 620 - 690

630.715 Agricultural Extension Work (number following 6 in 630.715 is 30715)

630.71501 - .71509 Historical & Geographical Treatment
Add *Areas notation 1 - 9 from Table-2 to base number 630.7150

630.715054 Extension Work in India

Here we are required to add to 331.124 the number following 6 in 630.715054. The class number for Job opportunities in Agricultural Extension work in India will be

$$331.124 + 30715054 = 331.124 307 150 54$$

Example-7 :

Photographing space flight

778.9 Photographing of specific subjects
Add to base number 778.9 the numbers following 704.949

704.949 Other specific subjects

9 number following 704.94 in 704.949 is 9
Add 001 - 999 to base number 704.949

629.41 Space flight

$$778.9 + 9 + 629.41 = 778.996 294 1$$

Example-8 :

Research on Electrotherapy for Arthritis

616.722 *Arthritis
Asterisk directs via footnote to centered heading 616.1 - 616.9 Specific diseases

062 - 069 Other therapies
Add to 06 the numbers following 615.8 in 615.82 - 615.89
615.845 Electrotherapy

45 Number following 615.8 in 615.845 is 45

072 / Research (Table-1)

$$616.722 + 06 + 45 + 072 = 616.722 064 507 2$$

Example-9 :

Safety measures to be adopted in Architecture of Children's Libraries

- 727.8 *Architecture of Library buildings
 - 727.82 General Principles
Add to base number 727.82 the numbers following 027 in 027.1 - 027.8
027.625 Libraries for Children
 - 625 Number following 027 in 027.625 is 625
 - 0289 Safety measures (as instructed under 721 - 729)
- $727.82 + 625 + 0289 = 727.826\ 250\ 289$

Example-10 :

Labour policy of the US Steel Corporation

- 331.04 Labour in specific Industries
 - 331.042 - .049 Extractive, manufacturing, construction industries
Add to base number 331.04 the numbers following 6 in 620 - 690
669.142 Steel
 - 69142 Number following 6 in 669.142 is 69142
 - 09 Geographical treatment (Table-1)
 - 73 USA (Table-2)
- $331.04 + 69142 + 09 + 73 + 331.046\ 914\ 209\ 73$

Self Check Exercise - 1

Classify the following titles involving multiple synthesis :

- a) *Organo - Nickel synthetic drugs*
- b) *Administration of public Libraries in UK*
- c) *X-Ray therapy for blood diseases*
- d) *Tuberculosis in Cattle*
- e) *Rats as potato pests*
- f) *Bees as apple pests*
- g) *Manufacture of equipment for shooting Swans*
- h) *Diagnoses of female sterility*
- i) *Effect of Heat and high temperatures on trees*
- j) *International Law for trade in Marbles*

- Note: i) Write your answers in the space given below.
ii) Compare your answers with those given at the end of this Unit.

.....

.....

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Let our title be:

Supernaturally endowed founders of religions

In this title we find the following viable components:

Persons endowed with supernatural powers	291.62
Divinely inspired persons	291.63

As per the table of precedence, 291.63 Founders of Religions is to be preferred over 291.62 or its derivatives, so our class number will be 291.63.

Example-2:

336.201 - .207 Taxes and Taxation of Special topics of general applicability

The table of precedence provided under the centered headings enumerates as follows :

Business Taxes	336.207
Reductions in Taxes	336.206
Taxes by level	336.201
Tax Reform	336.205

Let our title be

Reductions in Business Taxes ...336.207 not 336.206

Example-3 :

Let us observe another table of precedence given under 623.81

Naval Architecture (Naval design) 623.81

The following table of precedence is given :

Design of Crafts	623.812
Design of Specific Parts	623.814
Design in Specific Materials	623.818
Design Tests	623.819
Structural Theory	623.817

Applying the above table, the class number for the following title will be :

Structural Theory of Design Tests 623.819 (not 623.817)

Self Check Exercise - 2

Classify the following titles by using the table of precedence:

- Out door cookery for Children*
- Infant Boys*
- Phosphoric Acids*
- Groups of Nude Children*
- Embroidering Tapestry*

Examples-3 :

In Table-7 persons (volume-1; page 432) under -03 -08 'Persons by various non-occupational characteristics' appears a note: "Unless other instructions are given class complex subjects with aspects in two or more subdivisions in this table in the number coming last in the table"

For example:

- Middle Class Socially disadvantaged Persons -0694 (not -0622)
- Middle Class Healthy Persons -0822 (not -0622)

The above analogy may be used for classifying the following titles :

- Middle Class healthy persons as artists* 704.0822 (not 704.0622)
- Middle Class Socially disadvantaged Persons as Artists* 704.0694 (not 704.0622)

8.6.2 USING EARLIER NUMBER

On the similar lines of the above we may have to use earlier number for fixing the order. The instruction reads like this "unless other instructions are given, class complex subjects with aspects in two or more sub-divisions of this schedule in the number coming first in the schedule".

Example-1:

- 398.2 Folk Literature
- 398.22 Tales and lore of historical and legendary beings of human and semihuman form
- 398.234 Legendary places
- Tales of heroes in legendary places* 398.22 (not 398.234)

Self Check Exercise - 3

Classify the following titles using last or earlier numbers from the schedules:

- a) *Middle Class Black Roman Catholic Boys*
- b) *Unitary Supernational States*
- c) *Equal pay for immigrants*
- d) *Public behaviour for children*
- e) *Phosphoamides*
- f) *Middle aged California Working Mothers*
- g) *Immigrant Married Women Labour*
- h) *Research in France on Consumer Preferences in Cosmetics*

- Note: i) Write your answers in the space given below.
ii) Compare your answers with those given at the end of this Unit.

.....

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8.7 FIXING PRIORITIES OF NUMBERS

Section 8.55 Citation Order of the Editor's Introduction (volume-I) has provided some general guidance for determining the specificity of a subject at places where specific instructions are not stated at the point of application. Such general trips are useful when the sub-divisions of a class number contain zero or zeros and when both concrete and abstract subjects are present.

8.7.1 BY THE NUMBER OF ZEROS IN THE SUB-DIVISIONS OF A CLASS NUMBER

In the development of some subjects zero or zeros may be used to expand its notation base. The sub-divisions without zero are usually more specific than those with it. Therefore, give precedence to sub-divisions without zero notation before those with zero notation, to one zero before two, to two zeros before three.

Examples:

- | | |
|--|-----------------------|
| a) <i>Manufacture of Plastic desks</i> | 684.14 (not 684.106) |
| b) <i>Planning and Policy making in Finance Department</i> | 351.02 (not 351.0072) |
| c) <i>Architectural construction of floors for use by the handicapped.</i> | 721.6 (not 721.0462) |

8.7.2 PREFERRING CONCRETE OVER THE ABSTRACT

Section 8.55 (4) of Editor's Introduction suggests "Lacking any of the foregoing principles, apply the following citation order formula, which will generally prove to be reasonable and helpful : Class by things; kinds of things; parts of things; materials from which the things, kinds or parts are made; properties of the things, kinds, parts or materials; processes within the things, kinds, parts or materials; operations upon the things, kinds, parts or materials; agents or such operations.

In other words prefer whole over the part; concrete over the abstract; thing/material over the process; and process over the agent. For example,

- | | |
|---|-------------------|
| a) <i>Etyymology of Nepali Language</i> | 491.49 (not 412) |
| b) <i>Harvesting of Fiber Crops</i> | 633.5 (not 631.5) |

Self Check Exercise - 4

Classify the following titles by preferring concrete over the abstract:

- Assamese Language poetry*
- Storing of China Jute*
- Tillage for pasture and its grasses*
- Administration of School Libraries*
- Miniature portraits of Men*
- Wooden Chairs and Tables*
- Official status of gold coins*
- Maintenance and Repair of beds*
- Rearing exceptional girls*
- Care and maintenance of Riding Horses*

- Note: i) Write your answers in the space given below
ii) Compare your answers with those given at the end of this Unit.

8.8 SUMMING UP

In this Unit the following main points have discussed:

(1) *Multiple synthesis* :- A process of number building by the addition of more than one sub-division at the time from the schedules or tables or both. Identification of correct base number and proper analysis of 'Add-to' instruction are the basis for multiple synthesis.

(2) *Order of Precedence* :- It may be in the form of a note or table. A note states the correct citation order under a subject that the schedules sub-divide according to more than one characteristic. Table of precedence is a table of aspects of a subject fixing the priority of one aspect over the other.

(3) *Fixing priorities of numbers* :- When there is no clear instruction, we have to prefer more specific number. In cases where there is a difficulty of judging the specifically, we have to prefer concrete over the abstract.

8.9 ANSWERS TO SELF-CHECK EXERCISES

1. a) 615.315625
b) 626.197441
c) 616.1506422
d) 636.20896995
e) 633.4919693233
f) 634.119799
g) 688.7924841
h) 618.178075
i) 582.16019162
j) 341.75472512
2. a) 641.5622 (not 641.578)
b) 649.122 (not 649.132)

- c) 661.87 (not 661.86)
 d) 704.9425
 e) 746.3 (not 746.44)
 f) 155.423 (not 155.433)
 g) 336.207 (not 336.205)
 h) 351.8482 (not 351.8484 or 351.8485)
 i) 362.799 (not 362.793)
 j) 658.401 (not 658.403)
3. a) 305.23 (not 305.3)
 b) 321.04 (not 321.01)
 c) 351.836 (not 351.835)
 d) 395.53 (not 395.122)
 e) 547.074 (not 547.042)
 f) 331.394 (not 331.44 or 331.62794)
 g) 331.43 (not 331.62)
 h) 658.8343 (not 658.83866855 or 658.83944)
4. a) 891.45
 b) 633.56 (not 631.568)
 c) 633.202 (not 631.51)
 d) 027.8 (not 025.1)
 e) 757.7 (not 757.3)
 f) 684.13 (not 684.104)
 g) 332.4222 (not 332.42042)
 h) 684.15 (not 684.1044)
 i) 649.15 (not 649.133)
 j) 636.13 (not 636.083)

8.10 ASSIGNMENT

- Explain the concepts given below with three examples for each :
 - Multiple Synthesis
 - Order of Precedence
- How do you fix of numbers where there are not specific instructions.

8.11 RECOMMENDED BOOKS

Batty, C.D. *An Introduction to the Nineteenth Edition of the Dewey Decimal Classification*. London : Clive Bingley, 1981.

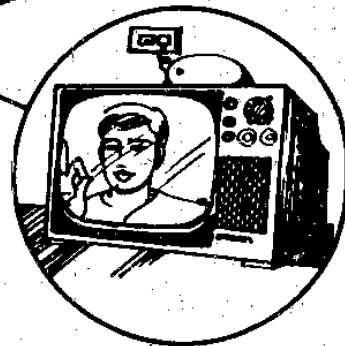
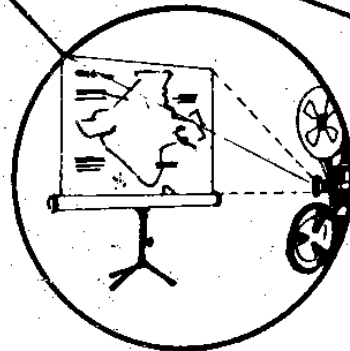
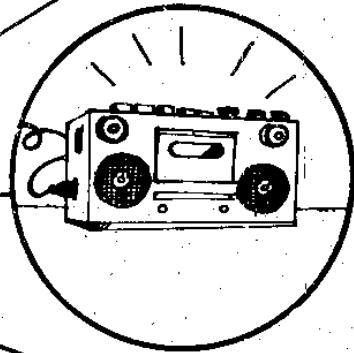
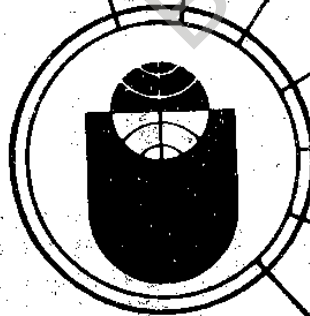
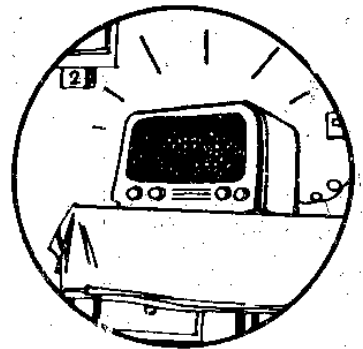
Gangadhara Rao, P. *Synthesis in DDC : 18th Edition*. Waltair : Andhra University, 1983.

Library Classification Practice (BLS-3p), edited by G.S. Rao. New Delhi : IGNOU, 1989. (UNit-5 and 10)

Manual on the use of the Dewey Decimal Classification : 19th Edition. New York : Forest Press, 1982.

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BLS-7

Practice

BLOCK II : CC

Rabindranath Tagore : Sacrifice and other plays. = O 157, 2M61,1

Rice Research Institute : Major insects pests of rice plants-
Symposium proceedings, Baltimore, 1967 = J381:438p73,N67

Swami Vivekananda : Meditation and its methods = Q2:412



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COURSE-7 : LIBRARY CLASSIFICATION PRACTICE

The course deals with the topics in Library Classification Practice included in the syllabus for the Bachelor of Library and Information Sciences (BLISc) offered by the Dr. B.R. Ambedkar Open University. These topics cover the 'core' area of the subject to be studied. The syllabus for the sake of convenience has been divided into blocks and units. These are two blocks in this course, namely, Block-I : Dewey Decimal Classification (DDC) and Block-II : Colon Classification (CC).

The present block (Colon Classification) contains ten units. The units are prepared in accordance with the house style/format designed by the Dr. B.R. Ambedkar Open University. This format facilitates you read and understand the content without much difficulty. Each unit begins with a list of contents, followed by a statement of aims and objectives, and introduction to the text. The content has been divided into number of sections and sub-sections to facilitate easy understanding and retention. Self check exercises are provided to test the learners comprehension at various places in the text.

Majority of libraries in India follow the two schemes of classification (DDC and CC) covered in this course, though there is a fairly good percentage of special libraries which follow Universal Decimal Classification. Teaching Classification Practice through printed media pose certain limitations and hence to overcome them, the units have been made not only as simple as possible but also a good number of examples have been provided.

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BLOCK-II : CLASSIFICATION OF DOCUMENTS BY CC (Ed 6)

Introduction

Colon Classification (CC) was designed by SR Ranganathan, the great Indian librarian. It is based on sound scientific principles and it has affected the whole theory of classification.

This book introduces you to the method of classifying and arranging documents in libraries. The sixth edition of CC published in 1960 (reprint edition with some important amendments issued in 1963) has been prescribed in your syllabus. You have to study the Scheme, so as to acquaint yourself with various rules and able to interpret and apply them while classifying the documents practically.

There are ten units in this book. The first unit introduces the structure and organisation of the Scheme. The second unit deals with Rounds and Levels and Cluttering of Connecting Symbols. Devices and Systems & Specials are introduced in Unit-3. The fourth unit and fifth units explain the application of Common Isolates and Phase Relation respectively. Unit-6 deals with Examples from the Main Classes in Generalia and Library Science. The units 7 to 10 explain you how to classify documents with examples from the Main Classes grouped under different generic classes, namely, Physical Sciences, Biological Sciences, Humanities and Social Sciences. The examples covered in these units illustrate all important rules and techniques necessary for synthesizing the class numbers.

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UNIT-1 : INTRODUCTION TO COLON CLASSIFICATION (Edition 6)

Contents

- 1.0 Aims and Objectives
- 1.1 Introduction
- 1.2 Structure of CC6
- 1.3 Features
 - 1.3.1 Call Number, Class Number & Book Number
 - 1.3.2 Notation
 - 1.3.3 Scheme of Main Classes
 - 1.3.4 Connecting Symbols
- 1.4 Division of Universe of Knowledge
 - 1.4.1 Analysis of Specific Subjects
 - 1.4.2 Facet Analysis
 - 1.4.3 Fundamental Categories
 - 1.4.4 Facet Sequence
- 1.5 Postulates useful in Classifying documents
- 1.6 Synthesis in CC
- 1.7 Steps in Practical Classification
- 1.8 How to use the Index to Schedules
- 1.9 Summing Up
- 1.10 Answers to Self Check Exercises
- 1.11 Assignment
- 1.12 Recommended Books
- 1.13 Glossary

1.0 AIMS AND OBJECTIVES

The unit aims to introduce you the structure, the features, the principles and the lay out of Colon Classification 6th edition in order to enable you to classify documents according to the scheme of classification.

After studying this unit, you should be able to

- describe the structure of CC (Ed.6);
- explain the basis of dividison of universe of knowledge in CC; and
- discuss the postulates useful in classifying classifying documents.

1.1 INTRODUCTION

So far we have been classifying documents by Dewey Decimal Classification scheme. You are aware that there are several other classification schemes which are used in classifying documents. In our country another scheme which is fairly popular is Colon Classification. This is devised by S.R. Ranganathan in the year 1933. Ranganathan was a mathematics lecturer who was appointed as the University Librarian of Madras University Library in the year 1924. He was immediately deputed to England to undergo training in Librarianship and joined University College, London. It was here he came in contact with W.C. Berwick Sayers whose classification theory considerably influenced Ranganathan.

Ranganathan spent nearly two years in England, visited various libraries, and found that the arrangement of books required some scientific basis. On his return to Madras, he used the Madras University collection as his experimental stock. The first edition of Colon Classification was published in 1933. Since then it has been considerably revised and undergone several changes. It is now in its 6th edition. The seventh edition is published in 1987 wherein some basic changes have been brought in. However, we will be dealing only with the 6th edition which was published in 1963 with some amendments.

Colon Classification has three parts. The first part deals with basic rules, the second part gives the schedules of classification and the third part deals with classics and sacred books with worked out numbers. Each part has its own index. The pages for each part numbered separately. The page number is represented by two blocks separated by a dot. The number appearing to the left of the dot in the block indicates the part and the number to the right gives the page number in that part. E.g. 2.49 means page 49 in part 2. There is an annexure in the beginning of the book wherein some corrections and misprints are shown.

1.2 STRUCTURE OF CC6

The 6th reprint edition of CC consists of:

- 1) Contents of the system given in pages 7 and 8.
- 2) Preface to the 6th edition given in pages 9 to 11.
- 3) Introduction given in pages 12 to 16.
- 4) Annexure given in pages 19 to 28. This deals with the changes brought into use after the publication of the 6th edition in 1960. To inform the changes to the classifier, first the page number and the rule number are given and next indicated the change. For example, page 1.5, Rule 0214: for Octavising Digit read Sectorising Digit; for Octave Device read Sector Device. A note is also given that the change should be made in all the places where these terms occur.
- 5) Part 1 which covers in the pages 1.3 to 1.124. It deals with the rules useful to know the theory needed for the construction of class number. Each chapter deals with certain aspects of classification of the class concerned.
- 6) Part 2 which deals with Schedules of Classification in pages 2.29 to 2.123.
- 7) Part 3 which contains Schedules of Classics and Sacred books with special names. First the class number is given and against it the name of the Classic is given. This part covers in pages 3.3 - 3.53.
- 8) Facet formula for Book Number is given page 2.3.
- 9) Main Classes are given in page 2.4.
- 10) Common Isolates given in pages 2.5 to 2.6.
- 11) Time Isolates given in page 2.7.
- 12) Space Isolates (Geographical Divisions) given in pages 2.8 to 2.17.
- 13) Space Isolates (Physical features) as amended given in page 6 of Annexure.
- 14) Language Isolates given in pages 2.26 - 2.27.
- 15) Place relations given in page 2.28.

- 16) Index to rules in Part 1 is given in pages 1.123 - 1.124. It is an alphabetical index for all the chapters and sections. Against each term the chapter number or section number is given for easy reference and location.
- 17) Index to Schedules of Classification (main Classes) contained in Part 2 in pages 2.124 - 2.172. How to use this index is explained in page 25 of this unit.
- 18) Index to the Schedules of Classics is given in Part 3. It is an alphabetical index of Classics. The name of the Classic is given first and then against it the corresponding class number is given.
- 19) Index to natural groups in for the Main Class Botany is given in pages 2.61 - 2.63. It lists alphabetically all the isolate words enumerated under Personality facet of the class with affixing their corresponding isolate numbers.
- 20) Index to Natural groups in the Main Class Zoology is given in page 2.73 - 2.78. It lists alphabetically all the isolate words enumerated in the personality facet of the class with affixing their corresponding isolate numbers.
- 21) Index for space isolates (Geographical Index) is given in pages 2.18 to 2.25. The names of places, countries, continents etc., are enumerated alphabetically and affixed with the space isolate number. These numbers refer to Geographical Divisions (Space Isolates) given in page 2.8 to 2.17 in part 2.

1.3.1 CALL NUMBER, CLASS NUMBER AND BOOK NUMBER

The Call Number consists of Class Number, Book Number and Collection Number. While the Class Number specifies the subject of the book, the Book number individualises it and the Collection number indicates the sequence in the case of broken sequence system of arrangement of documents.

The class number of a document is the translation of the specific subject contained in the document from natural language to classificatory language. On the other hand Call Number is a number which denotes the relative position of a document in a library and the position of its entry in the catalogue. It helps in locating the document/book.

The Call number, Class number and the Book number are dealt with in pages 1.3 to 1.17 in Part 1.

Ranganathan presented a facet formula for book numbers in conformity with his scheme of classification. The formula provides for all possible characteristics which are likely to arise in the expression of an idea informing a work and also the characteristics likely to arise in embodying a work in the form of a book.

Ranganathan has also provided a scheme to devise collection numbers.

1.3.2 NOTATION

Notation means the symbols used in the schemes to represent classes. Colon Classification used mixed notation consisting of :

- 1) Ten Indo-Arabic numerals (0 and 1 to 9)
- 2) 26 Capital letters of the Roman alphabet (A to Z)
- 3) 23 Small letters of the Roman alphabet (a to z excluding e, l and o)
- 4) 2 Greek letters (Δ delta and Σ sigma)
- 5) 10 Connecting symbols or indicator digits.

The main classes and the connecting symbols are given separately in the following pages.

1.3.3 SCHEME OF MAIN CLASSES

The CC divides the universe of subjects into 47 Main-classes which are enumerated in page 2.4 as below:

- z Generalia
- 1 Universe of knowledge
- 2 Library Science
- 3 Book Science
- 4 Journalism
- A Natural Science
- AZ Mathematical Science
- B Mathematics
- BZ Physical Sciences
- C Physics
- D Engineering
- E Chemistry
- F Technology
- G Biology
- H Geology
- IX Mining
- I Botany
- J Agriculture
- K Zoology
- KX Animal Husbandry
- L Medicine
- LZ Pharmacognosy
- M Useful Arts
- Δ Spiritual Experience and Mysticism
- MZ Humanities and Social Sciences
- MZA Humanities
- N Fine Arts
- NX Literature and Language
- O Literature
- P Linguistics
- Q Religion
- R Philosophy
- S Psychology
- Σ Social Sciences
- T Education
- U Geography
- V History
- W Political Science
- X Economics
- Y Sociology
- YX Social Work
- Z Law

Illustrative

- (g) Criticism technique
- (p) Conference technique
- (r) Administration report technique
- (P) Communication Theory
- (X) Management

1.3.4 CONNECTING SYMBOLS

- 1) ← (Backward arrow) : Its use is to connect two points of Time.
- 2) → (Forward arrow) indicates future time.
- 3) "0" (Zero) indicates phase relation.
- 4) " ' " (Single inverted comma) indicates Time facet.
- 5) "." (Dot) indicates Space facet.
- 6) ":" (Colon) indicates Energy facet.
- 7) ";" (Semicolon) indicates Matter facet.
- 8) "," (Comma) indicates Personality facet.
- 9) "-" (Hyphen) indicates Super-Imposition.
- 10) "(" (Starter) and ") " (Arrester) indicate of Subject Device.

1.4 DIVISION OF UNIVERSE OF KNOWLEDGE

1.4.1 ANALYSIS OF SPECIFIC SUBJECT

The 'Universe of Knowledge' consists of entities (Universe of subjects). These entities may be concrete or conceptual, that is, things or ideas.

The 'universe of subjects' are divided into three groups as :

- 1) Natural and applied sciences which are developed as a result of man's reaction with nature.
- 2) Humanities which are developed out of man's interaction with his own self or mind, that is, with himself.
- 3) Social Sciences and their application which are resulted out of man's interaction with society, that is, with other men.

From these three areas Basic subjects (or classes) are derived. A 'Basic subject' is a subject without any isolate idea as its component. The Basic classes can be divided into two kinds, namely; Main classes' and 'Canonical classes'. A main class is the name by which a broader area of knowledge is represented.

The concept of a main class is traditional; and canonical classes are traditional division of a main class. Hence the canonical classes are not derived on the basis of definite characteristics.

There will be no subject without a basic class, that is, a main class or a canonical class. A subject may be treated wholly from a particular point of view (school of thought) as for instance Ayurveda (Indian medicine) (I.B). These are known as systems and are treated as the first kind of 'amplified main classes'.

A Subject may also be studied in a very narrow field of specialization as for a example child medicine (L9C) in the main class Medicine (L). These are known as Specials and are treated as second kind of a "Amplified main" class.

The main classes are further divided into 'facets' by the application of a single train of characteristics and are grouped under each possible fundamental category. (A facet is the totality of the sub-classes of a basic class derived by the use of a single train of characteristic).

Each division in a facet is called as 'isolate'. The isolates within a facet are called 'foci'.

Each isolate is a 'focus' or a qualifying concept. Thus within a facet an individual isolate is focus. For example 'English literature' is a focus in the 'language' facet of the class 'literature'.

If a sub-class consists of more than one focus it is called a compound subject. For example, in the class 'Literature', English poetry is a compound subject, since it combines two foci - one from the Language facet and the other from the literary form facet.

Every compound subject has a basic subject or class, explicit or implicit. For example, the compound subject 'Treatise on coal mining' has the basic subject 'mining' which is explicit, that is, stated in the term.

The compound subject 'care of cows' has the basic subject 'animal husbandry' which is implicit, that is, not stated in the term but implied. Similarly 'Income tax' has implicitly the basic subject 'economics'. Thus a basic subject becomes a compound subject by the addition of qualifying concepts. These qualifying concepts are called 'isolates'. In the above examples 'treatise', 'coal', 'care', 'cows', 'income tax' are isolates.

Isolates can be divided into two kinds, namely special and common isolates depending upon their scope or area over which these are applicable. Special isolates belong only to a Main class, while the applicability of Common isolate is universal. It can be applied to any Main class.

1.4.2 FACET ANALYSIS

When a subject is broken into its facets, it is found that one isolate is in relation with an other isolate of a different facet of the same subject. For example in Literature, English, French, German etc. are related isolates and are called 'Language isolates'. Again poetry, Drama, Fiction etc. are another set of related isolates and they are called 'Form isolates' and so on. Thus the basic class Literature is analysed into four facets as Language, Form, Author and Work. Thus the entire process of determining the facets of a subject is known as "Facet analysis".

1.4.3 FUNDAMENTAL CATEGORIES

It is assumed that all the facets obtained by breaking the subjects can be grouped into five categories or aspects or points of view depending on their relationship. They are enumerated as Five Fundamental Categories, namely, Personality, Matter, Energy, Space and Time. For brevity they are indicated by PMEST.

Each fundamental category is represented with a connecting symbol. Upto the third edition of Colon Classification there was only one connecting symbol, Colon. That is why the scheme is called Colon Classification. The 4th edition (1952) brought in radical changes with the introduction of five Fundamental Categories with their own connecting symbols. It is not necessary that in a given subject all the fundamental categories are to be present.

The five fundamental categories fall in the sequence of PMEST and their connecting symbols are :

Fundamental Category	Connecting Symbol	Facet
Personality	, comma	[P]
Matter	; semi-colon	[M]
Energy	: colon	[E]
Space	. dot	[S]
Time	' single inverted comma	[T]

Identification of the Five Fundamental Categories : But to identify each of these categories is a little bit difficult. However most of them are enumerated. Also experience and intuitive insight help to recognise them.

Time :

Time is most abstract because it can not be seen and it cannot be held. Still it is very easy to identify it. It is the chronological factor in a subject. Take for example, 19th Century Literature, 20th Century Science, The 1982 Presidential Election. All these subjects involve Time facet. In CC provision is given to represent time upto a particular year, Seasonal and diurnal time as winter, snow, day or night. They are provided in page 2.7 (chapter 3) of CC. In the facet formula it is represented as [T] and in the class number it is indicated by an apostrophe or inverted comma " ' "

Time Isolate

Isolate in [T] : Chronological Division

A	Before 9999 B C	K	1600 to 1699 A D
A1	Eozoic	L	1700 to 1799 A D
A2	Palaeozoic	M	1800 to 1899 A D
A3	Mesozoic	N	1900 to 1999 A D
A4	Cainozoic	P	2000 to 2099 A D
A5	Quaternary	Q	2100 to 2199 A D
		R	2200 to 2299 A D
B	9999 to 1000 B C	S	2300 to 2399 A D
C	999 to 1 B C	T	2400 to 2499 A D
D	1 to 999 A D	U	2500 to 2599 A D
		V	2600 to 2699 A D
E	1000 to 1099 A D	W	2700 to 2799 A D
F	1100 to 1199 A D	X	2800 to 2899 A D
G	1200 to 1299 A D	YA	2900 to 2999 A D
H	1300 to 1399 A D		
I	1400 to 1499 A D	YB	3000 to 3099 A D
J	1500 to 1599 A D	YC	3100 to 3199 A D

If we have to represent 19th century we have to just write M (1800-1899 AD) but connecting symbol for Time should precede the number M, that means number for 19th century will be 'M'. Below is shown how to work out numbers for Time isolate :

Year	=	Nos.	Where	
1985	=	N85	N is 1900 - 1999	
			8 is 198 decade	
			5 is 1985 year	
1701	=	L01		
1215	=	H15		
1970s	=	N7		
685AD	=	D685	D is 1-999	
			6 is 7th century	
			8 is decade	
			5 is year	
63AD	=	D063		
4AD	=	D004		

1970s stands for the decade and in such cases only the decade number is to be shown. Under decade only the effective decade is to be represented as follows :

When the decade ends with 0 or 1 it is to be represented by 1

When the decade ends with 2 or 3 it is to be represented by 3

When the decade ends with 4 or 5 it is to be represented by 5

When the decade ends with 6 or 7 it is to be represented by 7

When the decade ends with 8 or 9 it is to be represented by 9

In case of BC years the number are worked out in a slightly different way.

$$32BC = C967$$

$$164BC = C834$$

BC number are derived as follows :

32 BC	165 BC
999	999
- 32	- 165
-----	-----
967	834

In case of 2000 BC
9999
- 2000

B 7999

1080 BC
9999
- 1080

B 8919

The method of deriving BC number is called "Method of Complements".

Below are worked out some examples to show how to represent time in a class number :

1) *19th Century Literature* O'M

O = Literature

M = 19th Century

2) *20th Century Science* A'N

A = Natural Sciences

N = 20th Century

3) *Libraries in 32 BC* 2 'C967

2 = Library Science

C967 = 32 BC

Sometimes we come across inclusive dates like Germany of 1939 to 1945. There is a provision to bring two dates together. They are represented by arrow marks ($\leftarrow \rightarrow$).

Germany of 1939 to 1945 = V55'N45 \leftarrow N39

When there are inclusive dates the later date to be taken first and the second date to be represented by backward arrow mark. Forward arrow mark is shown as follows :

Future of Libraries 1977: 2'N7 \rightarrow

Space

Another fundamental category 'Space' is also easy to understand. Space stands for all the countries of the world, the space by zone like tropical, arctic, equatorial, temperate etc. or by orientation like East, West, North, South, inside, outside etc. or countries like French speaking countries, gold mining countries or empires like Roman Empire, British Empire etc. Chapter 4 (page no. 2.8) of Colon classification gives Space Isolate

SPACE ISOLATE

Isolate in [s] : Geographical Division

1 World

1-0 Empire

To be divided by (GD)

(Illustrative)

1-52 Roman empire

1-56 British empire

16 Atlantic countries

161 Mediterranean countries

167 Baltic countries

17 Pacific countries

- 19 **By Zone**
- 191 Equatorial
- 192 Tropical
- 1923 South
- 1927 North
- 193 Sub-tropical
- 195 Temperate
- 197 Sub-arctic
- 198 Arctic

19A By Orientation

- 19B East
- 19C Near
- 19D Middle
- 19E Far
- 19F South-east
- 19G South
- 19L South-west
- 19M West
- 19R North-west
- 19S North
- 19W North-east
- 19X Inside
- 19Y Outside

1A Near-Sovereign Formation

To be divided by (CD)
(Illustrative)

- 1N League of Nations
- 1N4 United Nations area
- 1N48 The Commonwealth area

Division by (SD)
(Illustrative)

- 1(P111) English speaking countries
- 1(Q7) Muslim countries

- 2 Mother country**
- 3 Favoured country**

- 4 Asia**
- 41 China
- 42 Japan
- 44 India

- 5 Europe**
- 51 Greece
- 52 Italy
- 53 France
- 55 Germany
- 56 Great Britain and Ireland

- 6 Africa**
- 7 America**
- 73 United States

- 8 Australia**

44

India*As before 1956***441 Madras (excluding the Indian States)****4411 Eastern districts**

- 44111 Madras
- 44112 Chingleput
- 44113 South Arcot
- 44114 Tanjore

4413 Southern districts

- 44132 Ramnad
- 44133 Tinnevely
- 44134 Madura
- 44135 Trichinopoly
- 44136 Coimbatore
- 44137 Nilgiris

4415 West Coast

- 44153 Malabar
- 44154 South Kanara

4416 Ceded districts

- 44161 Cuddapah
- 44162 Anantapur
- 44163 Bellary
- 44165 Kurnool

4418 Andhra Desa

- 44181 Nellore
- 44182 Guntur
- 44183 Krishna
- 44184 Godavari, West
- 44185 Godavari, East
- 44186 Vizagapatnam
- 44187 Ganjam (Before) 1936

4419 Central Districts

- 44191 Salem
- 44192 North Arcot
- 44193 Chittoor

442 South (excluding Madras)

- 4421 Pudukkottain

4422 Travancore**4423 Cochin****4424 Mysore****4425 Hyderabad****4426 Coorg****4431 Bombay****448 Central India****449 Islands***After 1956***441 Southern States**

- 4411 Madras (Tamil Nadu)
- 4412 Kerala
- 4413 Mysore (Karnataka)
- 4416 Andhra Pradesh

443 Western States

- 4431 Bombay
- 4435 Maharashtra
- 4436 Gujarat
- 4437 Rajasthan

444 North Western States

- 4443 Punjab (East)
- 4445 Himachal Pradesh
- 4447 Jammu and Kashmir

445 Northern States

- 4452 Uttar Pradesh
- 4455 Madhya Pradesh

447 Eastern States

- 4471 Orissa
- 4473 Bihar
- 4475 Bengal (West)
- 4477 Assam

448 Centrally Administered Areas

- 4481 Delhi

4497 Himalayan States

- 44971 Bhutan
- 44973 Sikkim
- 44974 Nepal

In case of India there are two schedules : As before 1956 and After 1956. For uniformity in all your practical work adhere only to the numbers as given After 1956. In a class number if a place to be represented it is to be written after a dot like .44.

To explain with examples :

- 1) Geography of the world = U.1
U = Geography
.1 = World [S]
- 2) Economic conditions of India = X.44
X = Economics
.44 = India [S]
- 3) Agriculture in African Countries = J.6
J = Agriculture
.6 = Africa [S]

It may be stated here that without the connecting symbol (.) it will not mean space. If by mistake if you write U1 or J6 the meaning completely changes, it will mean mathematical geography and agriculture of drug plants respectively. Without the appropriate connecting symbol the subjects get distorted and hence correct connecting symbol to be given while classifying a document. You may be wondering while discussing time isolate how Germany is represented (V55) without the connecting symbol (.). This aspect will be discussed in Unit - 3.

In Space Isolate 1 is represented by world; 2 is given as Mother country. The meaning of Mother country is to represent our own country, instead of giving 44, it can be represented by one digit 2. "Economic condition of India" instead of X.44 can be given as X.2. If the book is "Economic condition of England" and if this book is classified in a library in England, they can give the number X.2 instead of X.56. In this case the mother country stands for England. Digit 3 is given as favoured country. Taking the same example "Economic condition of England" and if the book is classified in an Indian Library the number can be given as X.3 instead of X.56. Here England is treated as a favoured country. These are not fixed numbers, they depend in which country the books are classified. The purpose is to reduce one or more digits in the class number.

All the geographical areas are not represented in the schedules. Some are only illustrated, e.g. Roman empire I-52 which means world of the Romans (1 = World; 52 = Rome); in the same way Portugese empire will be I-542. This method is called superimposition method where two numbers are joined by a hyphen. Portugesc India will be 44-542; French India 44-53. However, do not take the liberty of joining any two different numbers. You will be taught in Unit-3 how this device works.

Commonwealth countries are represented by IN48 where I is world and N48 is 1948 which means a world created in 1948. French speaking countries is derived by what is called subject device, the number is I(P122) where I is world and P122 is French language. Rice growing countries is I(J381) where I is world and J381 is rice. Countries can be represented by orientation like Eastern Europe is 5.9B or Southern Delhi will be 4481.9G.

Energy :

In its order of concreteness, it lies in between all the five categories. It means it is as concrete as it is abstract. As compared to Space and Time categories, in identification Energy gives some difficulties. Roughly it can be taken as the manifestation of action, reaction, problems, process, solution etc., It is almost like a verb in a sentence. In the facet formula it is represented as [E]. In the Class number it is indicated by a colon " : "

By and large they can be traced in a given subject as they are enumerated in the schedules. For example see the Energy Isolates as given in the basic class 'Library Science'.

Foci in [E] class [2P]

- 1 Book selection
- 2 Organisation
- 3 Function
- 4 Co-operation
- 5 Technical treatment**
- 51 Classification
- 55 Cataloguing
- 6 Circulation**
- 61 Consultation
- 62 Lending
- 7 Reference service**
- 8 Administration**
- 81 Book Selection
- 811 Source
- 815 Indent
- 82 Order
- 84 Accession
- 85 Preparation
- 88 Maintenance
- 97 Documentation

Examples :

- 1) *Library Classification* 2 : 51
2 = Library Science (BC)
51 = Classification [E]
- 2) *Documentation in India* 2 : 97.44
2 = Library Science (BC)
97 = Documentation [E]
44 = India [S]

Matter :

It is a material facet. It is less concrete than personality but more concrete than Energy, Space and Time. It lends itself as a medium to be acted upon as a kind of surface, material, or a commodity for consumption etc.

In the facet formula it is represented as [M] and in the class number it is indicated by a semicolon

In painting the material used, like paper, canvas, glass stands for Matter. In economics the material used for minting currency like copper, silver, gold or paper stand for material. The fundamental category 'Matter' is used in very few classes (In the 7th edition of *Colon Classification* the meaning of 'Matter' has changed).

NQ PAINTING

NQ [P], [P2] [P3]; [M] : [E] [2P]

Foci in [M]

- 1 Wood
- 2 Paper
- 3 Fresco
- 4 Stone
- 5 Metals
- 6 Glass
- 7 Canvas
- 8 Ivory
- 9 Other surfaces

Examples :

- 1) *Canvas paintings* NQ; 7
NQ = Painting (BC)
7 = Canvas [M]
- 2) *Paper money* X61; 4
X = Economics (BC)
61 = Money [P]
4 = Paper [M]

Personality :

It is the most concrete but most difficult to recognize it. It is very important facet in many subjects. Without it a subject may be formless. Personality manifests itself in persons, institutions, substances, kind of life or plants, body organs, languages, religions etc. It is like a noun in a sentence.

In the facet formula, it is represented as [P] and in the class numbers it is indicated by a comma ", ". However the comma need not be used in the case of first level [P] in every Rund.

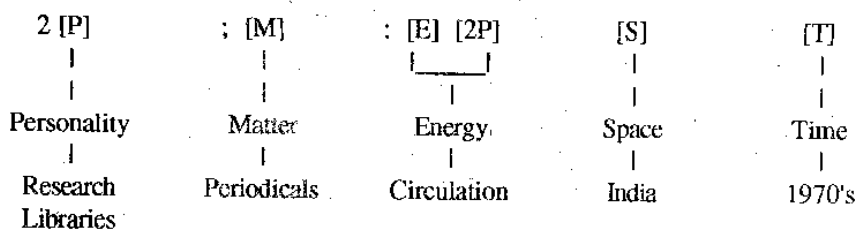
It is very difficult to identify the Personality category. It is to be recognised by process of elimination. After separating out the isolates of Time, Space, Energy and Matter in a subject, the remaining will be taken as Personality. This is called the "Method of residue".

An example is given below to explain all the Five Fundamental Categories :

Circulation of periodicals in research libraries in India in the years 1970's. Let us find out the fundamental categories in the above subject.

- | | | |
|--------------------|---|-------------|
| 1970's | = | Time |
| India | = | Space |
| Circulation | = | Energy |
| Periodicals | = | Mater |
| Research Libraries | = | Personality |

The Main Class is Library Science and hence it is 2. For each Main class a facet formula is provided and for Library Science the facet formula is 2 [P] ; [M] ; [E] [2P].



In the above formula you have not been told what is [2P] after [E]. This will be dealt later in this unit. As stated previously Space and Time can be added wherever warranted.

In any subject the Five Fundamental Categories may occur more than once. This led to evolve the postulates of Rounds and Levels of manifestation. These are explained in detail Unit-2 of this Course material.

Facet sequence : The fixing of the sequence of the facets are done on the basis of the following principles:

- 1) Wall -Picture principle
- 2) Whole-Organ principle
- 3) Cow-Calf principle
- 4) Actand-Action- Actor - Tool principle
- 5) Commodity - Raw material principle

These principles are dealt with in detail in the theory part of CC in the course material for "Theory of Classification". (Course-3; Unit-18)

1.5 POSTULATES USEFUL IN CLASSIFYING DOCUMENTS

Postulates are assumptions used as the basis for the development of any system of thought or any system of technique. Some of them are as given below :

- 1) **Postulates of Fundamental Categories :** There are five and only Five Fundamental Categories, viz., Personality, Matter, Energy, Space and Time.
- 2) **Postulate of Basic Subject :** 'Each subject has a basic facet'. A Main class is a Basic Class or Basic Facet. There is a difference between a Main Class and a Basic Class as some simple subjects have only a Basic Facet.

Eg. *Text book of Physics.* (Here Physics is the Basic Facet)

- 3) **Postulate of Isolate Facet :** A subject may have one or more isolate facets each of which can be deemed to be a manifestation of one and only one of the Five Fundamental Categories.

Eg. *Classification of Books in Indian University Libraries in 1985.*

Library Science -

(BC)

University Libraries - Books - Classification - India - 1985

[P]

[M]

[E]

[S]

[T]

- 4) **Postulate of Subject** : A subject consists either of a basic class alone or of a basic class and one or more of the Five Fundamental Categories.

Eg : *X-ray treatment for the Lung diseases of Dogs.*

Here :

Basic class : Animal Husbandry
 Personality : Dog
 Personality : Lung
 Personality : X-ray
 Energy : Disease
 Energy : Treatment

- 5) **Postulate of Concreteness** : The five fundamental categories fall into the following sequence when arranged according to their decreasing concreteness : PMEST

Eg. *Circulation of Periodicals in University Libraries in India in 1985*

University Library [P] ; Periodicals [M] : Circulation [E] . India [S] ' Time [T]

- 6) **Postulate of Sequence** : The basic facet of the subject should be placed first; and the other facets should be arranged thereafter in the sequence of the decreasing concreteness of the fundamental categories of which they are respectively taken to be manifestations, provided there is not more than one manifestation of any fundamental category.

- 7) **Postulate of connecting symbols** : Comma " , " for [P], Semicolon " ; " for [M], Colon " : " for [E], Dot " . " for [S] and Inverted Comma " ' " for [T].

- 8) **Postulate for omission of connecting symbol** :

- a) The connecting symbol comma " , " need not be inserted before 1st level Personality in every round.

Eg : *Diseases of ear* L185:4

Medicine	Ear	Disease
(BC)	[P]	[E]

- b) The connecting symbol need not be inserted before [2P1], [3P1] if these follow immediately after [E], [2E] etc.,

Eg : *X-ray treatment for the Lung TB-of dogs in India in 1985*

KX	,	541	,	45	:	4	21	:	6	253	44'	N85
(BC)		[P]		[P2]		[E]	[2P1]		[E]	[3P1]	[S]	[T]

- c) Of two consecutive facets, if all the isolate numbers in the earlier facet are not to consist of the same species of digits, the connecting symbol between the two facets may be omitted. The possible omission of (CS) prescribed for [P] levels is indicated by the facet formula.

Eg: *Norms in Modern French*

P	122	,	H	31
(BC)	[P]		[P2]	[P3]

- 9) **Postulates of Rounds :** There may be two or more manifestations of Personality, Matter and Energy in the same subject. The second round Personality and Matter will come after the First round Energy and the third round Personality, Matter, Energy will come after the 2nd round Energy and so on.
- 10) **Postulate of Level :** Personality may manifest itself in one and the same round in a subject more than once, that is, in two or more levels.
- 11) **Postulate of Level Cluster :** Facets of different levels of the same Fundamental category within a round should be kept together.

Eg. Lung disease of dogs.

KX 541 45 : 4
 (BC) [1P1] [1P2] [E]

- 12) **Postulate for anteriorising quality :** Any number will come before a Roman lower case letter.

Eg : 2a *Bibliography of Library Science.*

Self Check Exercise - 1 :

Identify the fundamental categories from the following titles :

- a) *Population of Keral, 1981*
- b) *Cashewnut curing in Kerala*
- c) *National Libraries of the world, 1957*
- d) *Evolution of Birds*
- e) *Signalling system in Indian Railway*

Note : i) Write your answer in the space given below.
 ii) Check your answer with the answers given at the end of the unit.

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1.6 SYNTHESIS

After analysis, the next stage is synthesis. Synthesis is the process of fitting the identified categories in the facet formula of the class concerned. Though every main class has its own facet formula, the general facet formula, namely, PMEST is the same in every case. The absent categories are not mentioned in the formula.

The rules are explained in Part 1 for the synthesis. Certain rules are special to each main class. The rules further supplement the schedule. Many facets can be formed with the help of the rules in some Main classes for which no indication is given in the Schedule.

Apart from the special rules, the provision of some concepts like 'Rounds and Levels', 'Systems and 'Specials', Phase relation'. 'Common isolates' are very important to classify mostly inter-disciplinary subjects. Also certain Devices such as Subject Device, Super-imposition Device, Chronological Device, Geographical Device, Mnemonic Device and Alphabetical Device are used to make some existing isolates more specific and precise to handle new or local situations. Devices can also be used to create altogether a new isolate if it does not exist already.

Absent facets : It is not essential for all these categories to be present in all the subjects. It depends upon the depth of the subject, whether it contains facets belonging to all the categories or some are absent. For example, in the title: *Classification in the University Libraries*, the categories 'Matter', 'Space' and 'Time' are absent. In the title: *Atomic weight* only the category 'Energy' is present. In the title: *Hindu Religion* only the 'Personality' category is present and all other categories are absent.

Diffused facet : A facet or category may be omni-present, but still not manifested. It may not be crystallized. Its focus is not sharp or pin-pointed, but it is spread all over the facet. Such a facet is diffused facet. For example in the title: *"Classification in Libraries"* which belong to the Main class Library Science wherein the kinds of Libraries make the Personality. Since no particular kind of library is mentioned in the above title, it implies for all the Personality facets. Hence the Personality is diffused. In synthesis it is treated like an absent facet. Therefore the class number for the title is 2:51.

Diffused facet in effect is an absent facet.

Latent Facet : Presence of a facet in a subject may be only implied or suggestive. In the Raw Title, a facet may be hidden. For example in the title *"Wheat Storing"* storage is a secondary operation. It can not take place before 'harvesting' is done. So the facet 'harvesting' is a hidden or latent facet. While assigning the class number, the hidden facet must be improvised at its proper place in the facet sequence. Hence the given title is to be written as: Agriculture [Wheat] [Harvesting] [Storage] J382:71:8

Usually the latent facet is 1st round [E] when the 2nd round [E] is present. It means that the concept behind the [2E] cannot be operative unless [1E] exists.

But it is not true with all the facets. [2P] may occur irrespective of the fact whether [1P] is present or absent. Similarly [2M] or even [3M] occur without the prior existence of [M] or [2M] as the case may be.

In the same way a level of [P], [S] or [T] may occur without any conditional existence of their earlier level or higher levels.

Examples :

Before proceeding with other Rules, you have to acquaint yourself with the schedules. Below are given ten examples from different subjects.

- 1) *Public libraries in Andhra Pradesh*
- 2) *A Text book of algebra*
- 3) *Velocity of sound*
- 4) *Theory of evolution*
- 5) *Evolution of mammals*
- 6) *Lung diseases*
- 7) *Treatment of asthma*
- 8) *Preachings of the Buddha.*
- 9) *Adolescent personality*
- 10) *Teaching techniques in secondary schools*

Before classifying any book, first find out what exactly the subject of the book. In unit 2 of Dewey Decimal Classification Block-I of this course) we have discussed how to find out the specific subject of the book. Same procedure holds good here also. You are not classifying the words given in the title, but only the core subject of the document. Hence words like "a book of", "text book", "an outline" and such other prefixes should not be taken into consideration. Only in exceptional cases they may have some meaning, which by experience you will come to know of it. Let us take up the ten titles given above.

1) *Public libraries in Andhra Pradesh* :

The Main Class is Library Science which is 2 in the Colon schedules. For each Main Class a facet formula is given and you will never go wrong if you strictly follow the facet formula. Sometimes the exact words used in the titles may not be available in the schedules, in which case your job is to find the equivalent word or which gives the nearest meaning to the subject you are classifying. Some of the numbers can also be traced from the chain of the isolates given in the schedule.

Classifying the title on hand let us first go through the facet formula: 2[P] ; [M] : [E] [2P] . Here [P] stands for different type of libraries, but under [P] there is no mention of public libraries and the nearest term available is 'Local' libraries and if you check the chain, you can understand that 'Local' stands for 'public' and hence our number for public libraries will be 22 where first 2 is Main class Library Science and the second 2 is taken from the Foci in [P]. Other parts of the formula [M] : [E] [2P] are not applicable in this case as the subject on hand does not deal with them and in such cases we say that they are absent. But there is some other subject present in the title i.e. Andhra Pradesh. This is Space isolate and to be taken from the Space schedule. In the previous Section we have stated that Space and Time can be added whenever it is warranted whether it is given in the facet formula or not. The number for Andhra Pradesh as given in the schedules are 4418 and 4416. As previously stated select numbers applicable only after 1956. In this case 4416 is Andhra Pradesh. Hence the class number will be 22.4416.

2) *A Text book of algebra* :

The Main Class will be mathematics, i.e., B. Under B, there are few subjects which have been enumerated and also stated as canonical divisions. There are few subjects which by tradition have been divided by the experts in the subject, that they can be represented only in that manner. Ranganathan describes the canonical sequence : "If the subjects..... are traditionally referred to in a specific sequence.... it will be convenient to conform to this traditional sequence. It may even happen that no specific characteristic can be isolated as forming the basis of the derivation of the classes, except that they are simply those into which their immediate universe had been traditionally divided".

In CC such classes are known as canonical classes. They can be found in Mathematics (Arithmetic, Algebra, Analysis, Other methods, Trigonometry, Geometry, Mechanics, etc. In Physics (Fundamentals, Properties of matter, sound, Heat, Light, Electricity, Magnetism etc.), in Geology (Mineralogy, Petrology, Structural geology, Dynamic geology, Stratigraphy etc.) and in Fine Arts (Architecture, Sculpture, Painting, Music, Dance, Theatre etc). In such cases the facet formulas will be applicable to a canonical class and not to the Main Class. The subject on hand is a simple one - Algebra and the class number is B2.

3) *Velocity of sound* :

The Main Class is Physics, i.e., C. Sound is a canonical class i.e., C3. The facet formula for C3 is C3 [P] : [E] [2P]. Here [P] is absent and velocity is given under [E] [2P]. The number for velocity is 21 and hence our number will be C3:21.

4) *Theory of evolution* :

The Main Class is Biology and the facet formula is

$$G[P] : [E] [2P]$$

In this subject, Personality facet is absent and only evolution is provided which is 66 under Energy facet and hence the number is G:66.

5) *Evolution of mammals* :

Instead of the general theory of evolution the discussion in this case is about the evolution of mammals. The Main Class is Zoology and the facet formula is

$$K[P] : [E] [2P]$$

In this subject Personality facet is present, i.e. mammals, and the number for mammals is 97 under [P], so the number for mammals is K97. We have to find the number for evolution and in page 2.72, you are directed that the Energy facet is the same as given under Biology Class and the number to be taken from [E] [2P] from Biology, which is 66 and hence the coextensive number for the subject will be K97:66.

6) *Lung diseases* :

The Main Class is Medicine or L. The facet formula is L[P] : [E] [2P] : [2E] [3P] where [P] stands for organs of the body, i.e., lungs.

L[P]	:	[E]	[2P]	:	[2E]	[3P]
Lungs		Disease			Absent	
45		4			53	6

Therefore the class no. L45:4

7) *Treatment of asthma* :

Main class - Medicine = L

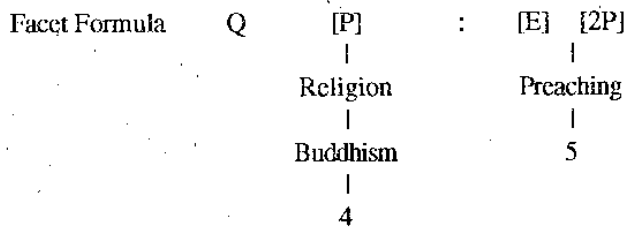
Facet Formula	L [P]	:	[E]	[2P]	:	[2E]	[3P]
	Lungs		Disease	Caused by complicated functioning		Treatment	
	45		4	53		6	

Therefore the class number is L 45:453: 6

In case of diseases the cause of the disease is to be known. Asthama is supposed to be caused by the complicated functioning of the lungs. Hence under [E] [2P] 4 is disease and 53 the cause of disease (complicated functioning). [2E] is therapeutics or treatment.

8) *Preachings of the Buddha :*

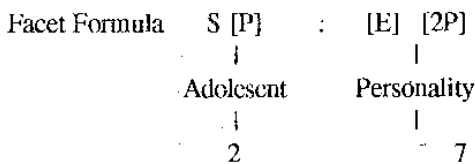
Main Class - Religion = Q



The class number = Q4:5

9) *Adolescent personality :*

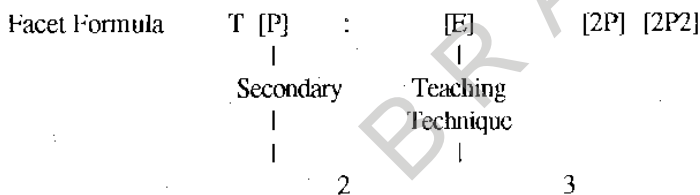
Main Class - Psychology = S



The class number = S2:7

10) *Teaching techniques in secondary schools :*

Main Class - Education = T



The class number = T2:3

The above examples are simple and straight forward, without involving any other rule except the facet formula as it is given. In a scheme of classification it is not possible to enumerate all the isolates in a given Main Class. In CC in several cases you are instructed to coin the numbers using some devices.

Self Check Exercise - 2

Classify the following :

- a) *India's National Library, 1961*
- b) *Child Psychology*
- c) *Flora of Rajasthan*
- d) *Anatomy of the vertebrates*
- e) *Coronary heart diseases*
- f) *Important fruit pests of North West India*
- g) *Basic grammar of modern Hindi*
- h) *20th Century democracy*

- Note : i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of the Unit.

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1.7 POSTULATIONAL APPROACH OR STEPS IN PRACTICAL CLASSIFICATION

After identifying all the categories and supplementing the latent facets, if necessary, they are all to be arranged in the facet formula given for each subject. In the facet formula the terms are replaced by their isolate numbers preceded by their respective indicator digits (connecting symbols). All these steps are explained in a graded manner. It is called the postulational approach. This approach is explained in Sec. 0268 in pages 1.7 and 1.8 of Rules part of CC6.

Illustrative example : 1

Step 0 : Raw title : Title as found in the document.

Eg: *Nationalisation of Banks in India.*

Step 1 : Full title : Title expressing each of the relevant basic and isolate ideas in the subject of the document, got by filling up all the ellipses in the raw title, that is, by breaking down composite terms into fundamental constituent terms. Sometimes terms that are needed to complete the meaning are to be added.

Eg: Nationalisation of Banks in India 'in Economics'.

Step 2 : Kernal title : Removing all puffs and auxiliaries from the full title (while retaining fundamental constituent terms). Kernal means essence. Puff means that which is hollow.

Eg: Nationalisation, Banks, India, Economics.

Step 3 : Analysed title : It is to be derived from kernal title by analysing the Basic and Isolate facets and correlating them with the Fundamental categories by their symbols.

Eg: Nationalisation (Spl.) Banks [P] India [S] Economics (BC).

Step 4 : Transformed title : It is the title to be derived from the analysed title by keeping the Basic class as the first facet and the isolate facets in the sequence of PMEST.

Eg: Economics (BC) Nationalisation [Spl] Banks [P] India [S]

Step 5 : Title in the standard terms : It is the title with kernel terms replaced by their respective equivalents as given in the schedules.

Eg: Economics (BC) Public Enterprise (Spl) Bank [P] India [S]

Step 6 : Title in Facet numbers : It is the title in standard terms with the kernel terms replaced by their equivalent isolate numbers as found in the classification schedules.

Eg: X (BC) 9W (Spl) 62 [P] 44 [S]

Step 7 : Synthesised numbers : The class number is derived from the title in facet numbers by removing symbols of each facet after inserting their connecting symbols.

Eg: X9W,62.44

Step 8 : Verification : The class number is to be reversed (retranslated) into natural language by digit-by-digit interpretation in order to verify its correctness.

Eg: X Economics

X9W Public enterprise

connecting symbol between Special and Personality.

X9W, 62 Banks

connecting symbol for Space

44 India

X9W, 62.44, that is *Nationalisation of Banks in India.*

Examples :

1) **Example for a simple specific subject :**

Principles of Biology

Step 0 : Raw title: *Principles of Biology*

Step 1 : Full title: Principles of Biology

Step 2 : Kernel title: Principles, Biology

Step 3 : Analysed title: Principles, Biology (BC)

Step 4 : Transformed title: Biology (BC), Principles

Step 5 : Standard term: Biology (BC) (including its Principles)

Step 6 : Title in Facet numbers: G (BC)

Step 7 : Synthesised Number : G

Step 8 : Verification: G Biology

2) **Example for a compound specific subject :**

Feeding of cattle in India

Step 0 : Raw title: *Feeding of cattle in India*

Step 1 : Full title: Feeding of cattle in India in 'Animal Husbandry'
(Here the name of the Main class is supplemented)

Step 2 : Kernel title: Feeding, cattle, India, Animal Husbandry.

Step 3 : Analysed title: Feeding [E] Cattle [P] India [S] Animal Husbandry (BC)

Step 4 : Transformed title: Animal Husbandry (BC) Cattle [P] Feeding [E] India [S]

Step 5 : Title in Standard terms: Animal Husbandry (BC) Cattle [P] Feeding [E] India [S]

Step 6 : Title in numbers: KX(BC)2 [P] 1 [E] 44 [S]

Step 7 : Synthesised number: KX2:1.44

Step 8 : Verification:

KX Animal Husbandry
2 Cattle [P]
: Connecting symbol
1 Feeding [E]
Connecting symbol
44 India [S]

3) **Example for a Complex specific subject :**

A study in the ability of genius for higher science education.

Step 0 : Raw title: A study in the ability of genius for higher science education.

Step 1 : Full title: A study in the ability of genius (in Psychology) for higher science education. (Here the Main class Psychology is added).

Step 2 : Kernal title: Ability Genius Psychology (Biasing) Higher Science Education

Step 3 : Analysed title: Ability [E] Genius [P] Psychology (BC) (Biasing) Higher [P] Science (SD) Education (BC)

Step 4 : Transformed title: 1st phase: Psychology (BC) Genius [P] Ability [E] Biasing
2nd Phase: Education (BC) Higher [P] Science (SD)

Step 5 : Title in Standard Terms: 1st Phase: Psychology (BC) Genius [P] Ability [E] (Biasing)
2nd Phase: Education (BC) University [P] Science (SD) (Here the term 'Higher' is replaced by the standard term 'University').

Step 6 : Title in numbers: S (BC) 61 [P] 73 [E] 0b (Biasing) T (BC) 4 [P] A (SD)

Step 7 : Synthesised number : S61:730bT4(A)

Step 8 : Verification:

S Psychology
61 Genius [P]
: Connecting symbol
73 Ability [E]
0 Connecting symbol (Phase relation)
b Sign represent inter-subject bias phase relation
T Education (BC)
4 University [P]
() Symbol for Packeted notation for Subject Device
A Science (MC)

1.8 HOW TO USE THE INDEX TO SCHEDULES

This is an alphabetical index to the fundamental constituent terms in the Schedules of classification contained in Part 2 in pages 2.3 to 2.123.

The number given against an entry requires some explanation. The first letter or digit represents a Common Isolate if it is a lower case and a Main class if it is a numeral or a capital letter. If the number begins with a capital letter followed by a numeral, it is the number of the canonical Class.

Key to Contractions used in the Index:

- (ACI) = Anteriorising Common Isolate
- (BN) = Book Number
- (LD) = Language Division
- (PCEI) = Posteriorising Common Energy Isolate
- (PCPI.Asf) = Posteriorising Common Personality Isolate after space Facet
- (PCLAtI) = Posteriorising Common Isolate after Time Facet
- [E] = Energy Facet
- [2E] = Second Round Energy Facet
- [M] = Matter Facet
- [M2] = Second Level Matter Facet
- [2M] = Second Round Matter Facet
- [P] = Personality Facet
- [P2] = Second Level Personality Facet
- [P3] = Third Level Personality Facet
- [2P] = Second Round Personality Facet
- [S] = Space Facet
- [T] = Time Facet

Examples of interpretation of Index

- 1) **Abdomen** G [P], K[P2], L[P], 14
"Abdomen" has the isolate number 14 in the Personality Facet of Main Class G Biology, Second Level Personality Facet of Main Class K Zoology and Personality Facet of Main Class L Medicine.
- 2) **Abnormal** S, T[P] 6, X[E] 9P, Z[P2] 6
"Abnormal" has the Isolate Number 6 in the Personality Facets of the Main Classes S Psychology and T Education. It has also the Isolate Number 9P in the Energy Facet of the Main Class X Economics, and the Isolate Number 16 in second Level Personality Facet of the Main Class Z Law.
- 3) **Administrative report** (ACI.Asf), r
r is the Isolate Number for "Administrative report" which should be applied after Space Facet as an Anteriorising Common Isolate.

4) **Afghan (LD), 165**

"Afghan language" has the Isolate Number 165.

Without the help of the Index it is difficult to get right class number. Hence the index must be used.

Self-Check Exercise - 3 :

Analyse the following example according to postulational approach and construct the class number:

Circulation of periodicals in research libraries in India during 1970's.

- Note: i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this unit.

1.9 SUMMING UP

Colon classification was devised by Dr. S.R. Ranganathan in the year 1933. The sixth edition published in the year 1960 is prescribed for our practice.

Colon Classification is an analytico-synthetic scheme of classification, which represents a subject by analysing it into its fundamental constituent elements and synthesizing a class number for the subject out of these elements linked by appropriate connecting symbols. Ranganathan has recognised five and only five fundamental categories. They are Personality, Matter, Energy, Space and Time. Postulational approach is used in classifying the documents.

1.10 ANSWERS TO SELF CHECK EXERCISES

1. a) 1981 (Time); Kerala (Space); Population (Energy)
b) Kerala (Space); Curing (Energy); Cashewnuts (Personality)
c) 1957 (Time); World (Space); National Libraries (Personality)
d) Evolution (Energy); Birds (Personality)
e) India (Space); Railway (Personality); Signalling System (Personality)
2. a) 213.44N61
b) S1
c) U35.4437
d) K9:2
e) L32:4
f) J37:4.449R
g) W6N

3. **Step 0 : Raw Title :** Circulation of periodicals in Research Libraries in India during 1970's.
- Step 1 : Full Title :** Circulation of periodicals in Reserach Libraries in (Library Science) in India during 1970's.
- Step 2 : Kernel Title :** Circulation, periodicals, research libraries, Library Science, India 1970's.
- Step 3 : Analysed Title :** Circulation [E], Periodicals [M], Research libraries [P], Library Science (BC), India [S], 1970's [T].
- Step 4 : Transformed Title :** Library Science (BC), Research libraries [P], Periodicals [M], Circulation [E], India [S], 1970s [T].
- Step 5 : Title in Standard Terms :** Library Science (BC), Research Libraries [P], Periodicals [M], Circulation [E], India [S], 1970s [T].
- Step 6 : Title in Number :** 2(BC), 36[P], 46[M], 6[E], N7[T]
- Step 7 : Class Number :** 236; 46:6.44 'N7

1.11 ASSIGNMENT

- 1) Compare the main classes in DDC and 'Universe of Subjects' in Colon Classification.
- 2) What are the postulates useful in classifying documents?
- 3) What are the different steps involved in Practical classification?

1.12 RECOMMENDED BOOKS

- Bhargava, G.D. and Sood, P.S.: *Colon Classification: Theory and practice.* Ujjain: Vijay Prakashan, 1975.
- Kaula, P.N.: *A Treatise on Colon Classification: Appended with a select Bibliography on the scheme.* New Delhi: Sterling Publishers Pvt. Ltd., 1985.
- Khanna, J.K.: *Colon Classification: Enumerated and Expanded Schedules alongwith theoretical formations.* New Delhi: Ess Ess Publications, 1986.
- Kumar, P.S.G.: *Practical Classification, Vol.1: Colon Classification.* New Delhi: Metropolitan Book (P) Ltd., 1978.
- Ranganathan, S.R.: *Colon Classification* (6th Rep. Ed.) Bombay: Asia Publishing House, 1976.
- Ranganathan, S.R.: *Elementary of Library Classification*, 3rd Ed. Bombay: Asia Publishing House, 1967.
- Sachdeva, M.S.: *Colon Classification: Theory and Practice*, 2nd Ed., New Delhi: Sterling Publishers Pvt. Ltd., 1980.
- Satija, M.P.: *Manual of practical Colon Classification.* New Delhi: Sterling Publishers Pvt. Ltd., 1984.
- Uppal, O.P.: *Practical Procedure of Classification: According to C.C. and D.D.C.* Patiala: Madaan Publishers, 1975.

1.13 GLOSSARY

Analytico-Synthetic Classification: A Classification which represents a subject by analysing it into its fundamental constituent elements and synthesising a class symbol for the subject out of these elements linked by appropriate connecting symbol.

Basic Class: Generic name for a main or a canonical class in a scheme of classification for the universe of knowledge.

Basic Focus : A main or canonical or amplified main class.

Class : Any term in classification scheme; a group of entities sharing the same characteristic. Ranked group.

Category : A fundamental form or a class of concept into which items of knowledge can be grouped.

Characteristic : A characteristic is an attribute or an attribute complex by which the ideas or objects are assembled or divided in classification. For example, the attributes which can be taken as characteristics for classification of society are Age, Sex, Family, Occupation, Birth, Residence etc.

Classification : An orderly arrangement of terms derived by logical division of a subject by means of trains of characteristic.

Class Number : An ordinal number representing the position of a class in a scheme of classification.

Complex Class : Class formed by the combination of two or more basic or compound classes are made to express the relation between them, but excluding the case when one of the classes forms an isolate of the other.

Coordinate Classes : Classes belonging to one and the same array, that is of the same order of division.

Digit : Any single symbolic mark that occurs in a class term which includes letters (Capitals and lower cases), punctuation marks, and any other symbol used in notation.

Facet : Totality of the isolates derived by the use of single train of characteristics. It is a group of divisions in a main class.

Facet Analysis : Analysis of a subject into its facets of a basic class and the order in which they are to be used in constructing a class number. It is based on the trains of characteristics used for the subdivision of the main class.

Foci : The Isolates within a facet are called 'foci'.

Focus : Generic term to denote an isolate idea or a basic class or a compound class or a complex class.

Isolate : Generic term to denote isolate idea or isolate term or isolate number. (The last focal point of foci).

Knowledge : The totality of ideas conserved by the humans.

Notation : The system of ordinal numbers (digits) representing the classes in a scheme of classification.

Ordinal numbers : Numbers that merely indicate order or sequence or position of a subject and are devoid of any cardinal value. For instance the value of 22 should be read as two-two but not twenty two.

Simple Subject : A basic subject is said to be a simple subject.

Subject : An organised or systematised body of ideas, forming a coherent group, and a segment (of an area) of the universe of knowledge.

UNIT-2: ROUNDS AND LEVELS; CLUTTERING OF CONNECTING SYMBOLS

Contents

- 2.0 Aims and Objectives
- 2.1 Introduction
- 2.2 Rounds of Manifestation
 - 2.2.1 Several Rounds
 - 2.2.2 First Round
 - 2.2.3 Second Round
 - 2.2.4 Third and Later Rounds
- 2.3 Levels of Manifestation
 - 2.3.1 Several Levels
 - 2.3.2 Levels of First Round
 - 2.3.3 Levels of Second Round
 - 2.3.4 Levels of Third and Later Rounds
- 2.4 Cluttering of the connecting Symbols
 - 2.4.1 Different Connecting Symbols
 - 2.4.2 Significance of Connecting Symbols
- 2.5 Differential Facets
- 2.6 Summing Up
- 2.7 Answers to Self Check Exercises
- 2.8 Assignments
- 2.9 Glossary

2.0 AIMS AND OBJECTIVES

Having given you some idea about the application of postulates and principles in Facet analysis and synthesis, in this unit we aim to explain you the importance of Rounds and Levels and Connecting symbols.

By the end of this unit you will be able to

- explain the significance and application of Round and Levels;
- describe cluttering of Connecting symbols; and
- discuss about Differential facets.

2.1 INTRODUCTION

The discussion so far was centred round the Five Fundamental Categories and as stated that Ranganathan has recognised only five categories in any given subject.

In the compound and complex subjects, the five fundamental categories manifest more than once in the form of facets. This led Ranganathan to formulate the concept of 'Rounds' and 'Levels' and enunciate certain Principles.

The concept of 'Rounds' denotes cyclic recurrence of fundamental categories in the facet analysis of a subject. The concept of 'level' denotes recurrence of one and the same fundamental category within a round.

2.2 ROUNDS OF MANIFESTATION

The cyclic recurrence of the same fundamental category among the various facts of a subject is described as 'Rounds' of manifestations.

2.2.1 SEVERAL ROUNDS

A subject may admit several 'Rounds' of one and the same fundamental category. The Personality, Matter and Energy facets can occur in different rounds within a subject. Space and Time cannot manifest, in any, but in the last 'Round'.

We shall call the manifestation of the Energy in the first, second, etc. rounds by the respective names as First Round Energy Facet, Second Round Energy Facet, etc.

We shall represent them respectively by the symbols [1E], [2E], etc. (In practice we do not write '1' to indicate the first round, since it is implied).

2.2.2 FIRST ROUND

The First Round ends with [E]. In other words, we can say that all the facets before [1E] are of First Round.

Examples :

- 1) *Harvesting of wheat*
- 2) *Anatomy of Invertebrates*

1) *Harvesting of Wheat :*

The main class is 'Agriculture' (J)

'Harvesting' is activity and hence Energy [E]

'Wheat' is Personality [P]

'Agriculture' (J) 'Wheat' [P] : 'Harvesting' [E]. Numbers as given in the schedules are 382 Wheat; 7 Harvesting.

The Class Number will be J382:7

2) *Anatomy of Invertebrates :*

The main class is Zoology (K).

'Anatomy' is process and hence Energy [E] 2

'Invertebrates' is Personality [P] 1

The facet formula then becomes Zoology (K) Vertebrates [P] : Anatomy [E] 2

The class number will be K1:2

Self Check Exercise - 1

Construct Class Numbers for the following titles:

- a) *Memory in old age*
- b) *Designing heat engines*
- c) *Tradition in Islam*
- d) *Travel in Europe*
- e) *Sanskrit Grammar*
- f) *Introduction to human physiology*
- g) *Volcanos of the earth*
- h) *Breeding of cattle*
- i) *19th century economic geography of Egypt*
- j) *Indian Railways (transport)*
- k) *Hindu astrology*
- l) *Theory of strength of materials*

- Note: i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this unit.

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2.2.3 SECOND ROUND

We shall represent the Second Round Personality Facet with symbol [2P], Second Round Matter Facet with the symbol [2M] and Second Round Energy Facet with the symbol [2E]. The [2E] can give rise to Third Round.

Examples :

- 1) Storage of wheat
- 2) Treatment of Whooping Cough
- 3) Coronary heart disease and its treatment
- 4) Diagnosis of disease
- 5) Cure for insomnia in Ayurvedic medicine

1) Storage of wheat

The main class is Agriculture J

Other Fundamental categories - wheat [P]

Storing [E]

Storing can be done only after harvesting and as such the actual categories are wheat [P] + harvesting [E] + storing [E]. In this case [E] repeats itself. Such repetition of a fundamental category, has to be accommodated. This has been solved by the concepts of Rounds. When there is a second Energy facet it is called 2nd Round of [E]

The facet formula then becomes :

J Wheat [P] : Harvesting [E] : Storing [2E]

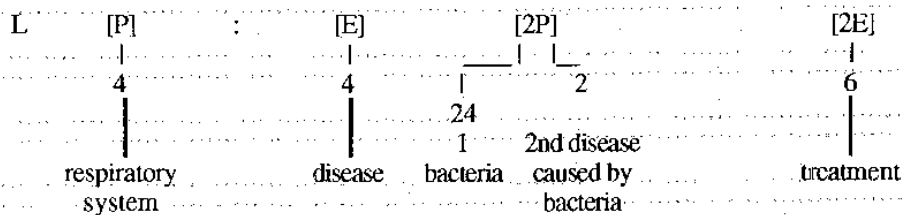
The number then will be J382:7:8

2) Treatment of whooping cough

The main class is Medicine = L

Whooping cough is a respiratory disease caused by some type of bacteria. Hence the fundamental categories in the subject are :

respiratory organs [P] + disease [E] + bacteria [P] + treatment [E]. In this case there is a peculiar situation; The Disease [E] is caused by bacteria [P] or after [E] there is the presence of [P] which goes against the first postulate that the order of Fundamental Categories should be in the sequence of PMEST only. In actual practice it has been found that sometimes personality facet also appears after Energy facet. This has been solved by the introduction of second round of personality, and hence the facet formula becomes



= L4:4242:6

We have stated while discussing about Five Fundamental Categories that each fundamental category should precede with the appropriate connecting symbol. Between [E]-[2P] no connecting symbol is provided. This is again an exception because under [E] only one digit '4' is used and any further number represents [2P]. Hence to reduce one digit (.) this method has been adopted.

The interpretation of the number is

- L = Medicine
- L4 = Respiratory system
- L4:4 = Disease of respiratory system
- L4:42 = Infectious disease of respiratory system
- L4:424 = Bacterial diseases of respiratory system
- L4:4242 = Whooping cough
(a respiratory disease caused by bacteria and enumerated as second disease).

3) *Coronary heart disease : and its treatment*

The main class is Medicine (L)

Heart is the organ facet so it is Personality [P] (and coronary artery is part of the heart)

Disease is Energy facet [E].

Treatment is Energy is [2E]

Facet formula is Medicine (L) Heart [P] : Disease [E] : Treatment [2E]

∴ the number becomes L32:4:6

4) *Diagnosis of disease*

The main class is Medicine (L)

Disease is problem facet i.e., Energy facet [E].

Diagnosis is handling the problem i.e., Second Round Energy [2E]

Facet formula is same as in the above example.

Then the number becomes L:4:3

5) *Cure for insomnia*

L7:452:6 where

- L = Medicine (BC)
- L7 = Nervous system [P]
- L7:452 = Insomnia
- L7:452:6 = Treatment of insomnia

2.2.4 THIRD AND LATER ROUNDS

We shall represent the Third Round Personality Facet with the symbol [3P];

Third Round Matter Facet with [3M];

and Third Round Energy Facet with symbol [3E] and so on.

Example :

Use of glucose in diarrhoea

The main class is Medicine (L)

Diarrhoea is L 25:452

Treatment is [2E]

Glucose is [3M] (this is from the main class 'E' Chemistry)

So the facet formula is

Medicine (L) : Diarrhoea [E] : Treatment [2E] ; Glucose [3M]

So, the number becomes L25:452:6;6813

Self Check Exercise - 2

Construct Class Numbers for the following titles :

- a) *Rice transplantation operations*
- b) *Throat surgery*
- c) *Relief work in slums*
- d) *Methods of preservation of milk*
- e) *Cleaning wheat produce*
- f) *Use of saline injection in curing diseases*

- Note: i) Write yur answer in the space given below.
ii) Check your answer with the answers given at the end of this unit.

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2.3 LEVELS OF MANIFESTATION

The recurrence of one and the same Fundamental category, within a Round is described as the 'Levels' of manifestation.

2.3.1 SEVERAL LEVELS

Personality, Matter, Space and Time can occur in different levels with in a subject. Energy can only manifest in Rounds but not levels. Manifestation of [P] in the successive levels will be called first level personality facet, second level personality facet, etc. So also with Matter, Space and Time.

2.3.2 LEVELS OF FIRST ROUND

The First Round, First level personality facet will be denoted by the symbol [1P1]. The First Round, Second level personality facet will be denoted by the symbol [1P2] and so on.

so also [1S1], [1S2], etc : and

so also [1T1], [1T2], etc.

In practice, we need not write '1' to indicate the first round or first level. For example, [P] means first round and first level personality, like wise [P2] means First round, second level personality.

Examples :

1) *Role of local bodies in Democracy.*

The Main class is Political science (W)

Democracy is personality [P]

Local bodies is personality [P2]

The facet formula is Political science (W) Democracy [P], Local bodies [P2].

So the number becomes W6, 6

2) *Indian Parliament and the fundamental rights*

V44,3:5 where

V = History (Main Class)

44 = India [P] got by (GD)

3 = Legislature [P2]

5 = Fundamental rights [E]

3) *Anatomy of plant root*

I = Botany (Main Class)

13 = Root [P2]

2 = Anatomy [E] (taken from G Biology)

Class Number 1,13:2

4) *Code of criminal procedure in India*

Main class is Law (Z)

The facet formula for the main class Law is Z [P], [P2], [P3], [P4]

[P] To be obtained by Geographical device i.e., from Space Isolate schedule.

[P2], [P3], [P4] are Enumerated in the schedules of the Main Class Law (Z)

In the above, facet formula, we find personality manifests in four levels.

The class number for the above title is Z44,75,15 where

Z = Law (MC)

Z44 = Indian Law (Personality facet level 1)

Z44,74 = Criminal proceedings (2nd level personality-manifestation)

Z44,75,15 = Procedure for criminal action (3rd level personality manifestation i.e., [P3])

Levels in Space and Time facets :

Space and Time facets manifest in two levels in the first Round.

In Space facet, Physiographical Isolates such as desert, island, valley, mountain, lake, river, etc. are listed as Second Level Space Isolates [S2]. These isolates are given on page 2.17 of CC6, but they are later amended in the reprint edition of CC6. The revised list of [S2] Isolates are given on page 26 of Annexure as Physical features.

- a Geosphere
- e Delta
- e6 Island
- f Forest
- g1 Valley
- g7 Mountain
- j Hydrosphere
- p1 River
- p6 Lake
- r Ocean

Examples :

- 1) *Mountaineering* U8.g7
 - U = Geography (BC)
 - 8 = Travel. Expedition [P]
 - g7 = Mountain [S2]
- 2) *River Valley civilization* Y:1.g1
 - Y = Sociology (BC)
 - 1 = Civilization [E]
 - g1 = Valley [S2]
- 3) *Agriculture in the delta regions of Andhra Pradesh* J.4416.e
 - J = Agriculture (BC)
 - 4416 = Andhra Pradesh [S]
 - e = Delta [S2]

Time facet manifests in two levels in the First Round : [T] and [T2]. The featured Time isolates such as day-time, night, seasons (dry, wet, snow), etc., are deemed as manifestation of the Second Level Time Isolates [T2]. The [T2] isolates are listed on page 2.7 of CC6.

Isolate in [T2] : Featured Time

- | | | | |
|----|----------|----|-----------------------|
| c | Day-Time | n5 | Autumn |
| d | Night | n7 | Winter |
| e | Twilight | | |
| | | p | Meteorological period |
| n | Season | p1 | Dry |
| n1 | Spring | p5 | Wet |
| n3 | Summer | p8 | Snow |

Examples :

1) *Rainfall in Andhra Pradesh in the winter of 1992* U2855.4416'N92'n7

U = Geography (BC)

2855 = Rain fall [P]

4416 = Andhra Pradesh [S]

N92 = 1992 [T]

n7 = Winter [T2]

2) *Rice yield in Tamil Nadu in Rabi season of 1990* J381:7:7.4411'N90'n3

J = Agriculture (BC)

381 = Rice [P]

7 = Harvesting [E]

7 = Yield [2E]

4411 = Tamilnadu [S]

N90 = 1990 [T]

n3 = Summer (Rabi) season [T2]

3) *Travel in Kashmir in the summer of 1985*

U8.4447'N85'n3 where

U8 = Travel

U8.4447 = Travel in Kashmir

U8.4447'N85 = Travel in Kashmir in the year 1985

U8.4447'N85'n3 = Travel in Kashmir in the summer of 1985

4) *Mango disease in rainy season in Andhra Pradesh*

J3751:4.4416'p5 where

J3751 = Mango

4 = Diseases [E]

4416 = Andhra Pradesh [S]

p5 = Wet period (Colon has not given a specific number for rainy season. The number should be under n5. In India there is no autumn season as in the West).

5) *Incidence of asthma in winter season*

L44:453'n7 where

L44 = Brochi

L44:4 = Disease of bronchi

L44:453 = A disease of the bronchi caused by complicated functioning, i.e., asthma

L44:453'n7 = Asthma in winter (n7 is second level of Time).

The connecting symbol (single inverted comma) signifies that the digits stand for Time.

Self Check Exercise - 3

Construct Class Numbers for the following titles :

- a) *Medium of instruction at the Secondary school level*
- b) *How to bring in temporary injunction to ex parte judgements*
- c) *Designing aerodromes in India*
- d) *Introduction to ordinary Linear differential equations*
- e) *Circulatory systems of mammals*
- f) *Moghal architecture*
- g) *Physiology of fern leaves*
- h) *Nuclear waste*
- i) *Excavation of pit in a coal mine*
- j) *Cold storage of apples in summer in Himachal Pradesh*

Note: i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this unit.

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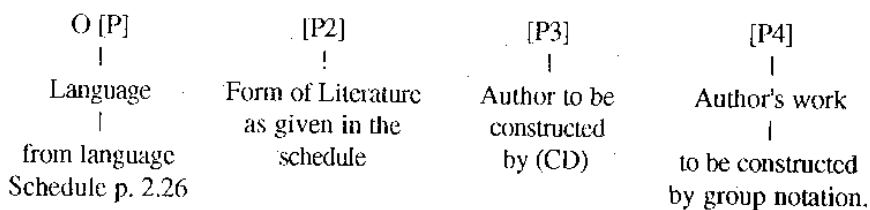
Four levels in Literature :

If we analyse literature, it is made up of language, form of literature (like poetry, drama, fiction etc.), author and his work. That means there are four facets and all the four facets fall under the fundamental category Personality. They are arranged as

O [P], [P2] [P3], [P4]

In such cases we call that there are four levels of Personality in the Main Class Literature. In page no. 2. 94 the facet formula and explanation is given how to coin the number for Literature class.

To explain the facet formula :



Some of the Language isolates are given here :

LANGUAGE DIVISIONS

I	Indo-European	4	Other Asian languages
11	Teutonic	5	Other European languages
111	English	6	Other African languages
112	Dutch	7	Other American languages
113	German	8	Other Australian languages
114	Swedish	9	Other oceanic languages
115	Norwegian		<i>Divisions 4-9 to be divided by (GD)</i>
116	Danish		<i>(Illustrative)</i>
117	Icelandic		467 Sumerian
12	Latin	99	Artificial languages
121	Italian		<i>To be divided by (CD)</i>
122	French		<i>(Illustrative)</i>
123	Spanish		99M Solresol
13	Greek		99M7 Lingualumina
14	Slavonic		99M8 Volapuk
142	Russian		99M84 Blaia Zimondal
15	Sanskrit		99M86 Cabe Aban
151	Prakrt		99M87 Esperanto
1511	Pali		99N Interlingua 'Latino Sina flex'
1512	Maharastri		99N1 Ido
1516	Ardhmagadhi		99N2 Hom-idoyno
1517	Magadhi		
1518	Apabhramsa		
15198	Sinhalese		
152	Hindi		
153	Panjabi		
154	Kashmiri		
155	Marathi		
156	Gujarati		
157	Bengali		
158	Assamese		
1591	Oriya		
1595	Nepalis		
2	Semitic		
25	Hebrew		
26	Phoenician		
28	Arabic		
3	Dravidian		
31	Tamil		
32	Malayalam		
33	Kanarese		
34	Tulu		
35	Telugu		
36	Kui		
38	Brahui		
39	Toda, etc.		

The explanation of the facet formula is given in the Rules Part of CC. Refer page no.1.98: Language number is to be taken from the Language Isolate (p. 2.26). Form of literature or form isolate is given in the schedule (foci in [P2]).

- 1 Poetry
- 2 Drama
- 3 Fiction
(including short stories)
- 4 Letters (literary form)
- 5 Oration
- 6 Other forms of prose
- 7 Campu

Every author has to be individualised by his date of birth. The year the author is born is taken for the purpose of construction of the number. The Chronological Device (Time Isolate) has been used to convert the year for the purpose of class number. The number for an author born in 1924 will be N24, born in 1863 will be M63. Please note no comma has been inserted between [P2] and [P3] as [P2] is given by Arabic numerals and [P3] starts with Roman alphabet and hence there is no confusion. This saves one digit.

The work number of an author is derived on the basis of group notation. If an author has not written more than eight works, they are numbered 1 to 8. If an author has written more than 8 works but less than 64, they are made into eight equal groups as follows :

Group No.	Contains	Sequence among the works written by the author	Constructed Work No.
1.	1-8	3rd work	13
2.	9-16	14th work	26
3.	17-24	17th work	31
4.	25-32	19th work	45
5.	33-40	38th work	56
6.	41-48	42nd work	62
7.	49-56	53rd work	75
8.	57-64	60th work	84

In the same way if the number of books written by an author exceeds 64 but does not exceed more than 512, the work number will have three digits, there will be a major group consisting 64 works, the second is the sub-group and third indicates the work in the sub-group, e.g., 65th work will be 111 (1st major group-1, 1st sub-group 1 and the first work in the sub-group).

Examples :

1) **Charles Dickens : *Great Expectations.***

This is a book of fiction. Hence the Main Class is Literature.

The number for book according to the facet formula is

(MC) [P] ,[P2] [P3] ,,[P4]
O 111 3 M12 23

= O111,3M12,23

Interpretation of the number

- O = Literature
- O111 = English Literature
(111 taken from Language schedule)
- O111,3 = English fiction
(3 is taken from Literature schedule in page 2,94)
- O111,3M12 = English fiction by an author born in the year 1812 = Charles Dickens
- O111,3M12,23 = Charles Dicken's 11th work (Presumed) Great Expectation

Below are worked out few examples based on Literature Class

- 1) Ben Johnson (1572) : *Every man in his humor*
- 2) Coleridge (1772) : *Ancient Mariner*
- 3) Jean Batist Moliere (1622) : *The miser*, (Tr. into English)
- 4) Han-Shan : *Cold mountain* : (100 Chinese poems)
- 5) *Three modern Japanese Plays* (youngest author born in 1934)
- 6) *An account of Rabindranath Tagore's works*
- 7) H.R. Agarwal : *A short history of Sanskrit literature*
- 8) *The art of writing plays*
- 9) Dostoeveski : *Crime and punishment*
- 10) *Jonathan Swift and the anatomy of satire*

Let us try to assign class numbers to the above titles.

1. Ben Johnson (born in the year 1572) : *Everyman in his humor*.

This is a English Play. Hence the Main Class is Literature

Literature	Language	Form	Author Ben	Work No.
	English	Drama	Johnson 1572	3rd
(MC)	[P]	[P2]	[P3]	[P4]
O	111	,2	J72	,3
= O111,2J72,3				

2. Coledrige : *Ancient Mariner*

Subject : English poetry

Literature	Language	Form	Author Coledrige	Work No.
	English	Poetry	1772	5th work
	[P]	[P2]	[P3]	[P4]
O	111	,1	L72	,5
= O111,1L72,5				

3. **Jean Batist Moliere (1622). *The miser*, (Translated into English): 13th work)**

Subject: French drama. Though the book is translated into English, it is to be classified under the original language.

Literature	Language	Form	Author Moliere	Work No.
	French	Drama	1622	13th
(MC)	[P]	[P2]	[P3]	[P4]
O	122	,2	K22	,25
= O122,2K22,25				

4. **Han-Shan (627 AD) : *Cold mountain*, (100 Chinese Poems)**

Subject : Literature - Chinese Poetry.

Literature	Language	Form	Author Han-Shan	Work No.2
	Chinese	Poetry	627	
(MC)	[P]	[P2]	[P3]	[P4]
O	41	1	D627	2
= O41,1D627,2				

5. ***Three modern Japanese plays* : (Youngest author born in 1934)**

Subject : Japanese plays

Literature	Language	Form	Author Youngest	Work No.
	Japanese	Drama	1934	
(MC)	[P]	[P2]	[P3]	[P]
O	42	,2	N3	Nil
= O42,2N3				

In works of a collection where there are more than one author, select the youngest author and work out the author number to two digits only. In case of collection the work number is to be omitted.

6. ***An account of Rabindranath Tagore's works***

Subject : Bengali Literature

Literature	Language	Form	Author Youngest	Work No.
	Bengali	Poetry	1861	
(MC)	[P]	[P2]	[P3]	[P4]
O	157	1	M61	Nil
= O157,1M61				

This is not a work by Rabindranath Tagore. It is a discussion on Tagore's works. In such cases it is essential to find under which field the author is well known. Tagore is well known as a Bengali poet, though there are works by him in English and also in several other forms like, plays, fiction and essays.

7. Agarwal, A.R : *A short history of Sanskrit literature*

Subject : Sanskrit literature

Literature	Language	Form	Author Youngest	Work
(MC)	Sanskrit	There is no literary form	Not a personal work and hence not applicable	No.
O	[P]			Nil
	15			
			= O15v	

The addition of v will be explained at a later stage while discussing Common isolates.

8. *The art of writing plays*

Subject : Literature

Literature	Language	Form	Author not applicable	Work not applicable
(MC)	Absent	Plays		
O		[P2]		
		2		
			= O,2	

9. Dostoevski : *Crime and punishment.*

Subject : Russian fiction

Literature	Language	Form	Author not Dostoevski	Work 9th
(MC)	Russian	fiction		
O	[P]	[P2]	[P3]	[P4]
	142	,3	M21	21
			= O142,3M21,21	

10. *Jonathan Swift and the anatomy of satire.*

Subject : English literature

Literature	Language	Form	Author Swift 1667	Work No.
(MC)	English	Satire		
O	[P]	[P2]	[P3]	[P4]
	111	,6	K62	not applicable
			= O111,6K62	

In CC there is no separate form number for satire, hence classified under other forms of prose.

Before proceeding further, some rules require further explanation. In case of language facet, you can use the favoured language digit (—) instead of the language number. In case in your library's major collection is Telugu literature the Telugu language number 35 can be replaced by — i.e., O—. This is applicable to any language, if your collection is mainly Hindi replace O152 by, O— or if it is English replace O111 by O—. This is left to your discretion if you adopt CC in your library.

One difficulty which you may confront in case of literature class, the date of birth of authors, this is spacially true with Indian authors. There are many biographical dictionaries as far as Western authors are concerned. As far as Indian literature is concerned many have the literary history which gives the names and date of authors. However, Ranganathan has given the option to use the alphabetical device in case of authors born after 1800. Only the century and the first letter of the author may be used.

Let us say you are classifying a novel of R.K. Narayan (1906-), the number will be O111, 3N06 which you can replace it by alphabetical device, in which case the number will be O111, 3NN. The first N is 20th century and the second N is the first alphabet of the name. In this the difficulty is there may be several names starting with N. "To reach individualisation many letters in the name will have to be used. But this would make the Author Numbers too long. In such cases, the first three letters alone of the name may be retained. In the case of second, third etc., of the authors concerned, the digit 1,2 etc., may be added". This is the directive given by Ranganathan (CC, page 1.101).

Another futile job is to ascertain the work number. This is not an easy task. With all the bibliographical literature one may not be in a position to find out the correct sequence of publication. In a library you have to make a decision whether you would like to retain the work number or replace it by alphabetical device.

Some simple numbers are worked out without giving explanation. Try to check the numbers in the schedules and see to what extent you have understood.

- a) O111N = 20th Century English literature
- b) O,1 = A book on poetry
- c) O111, 1M09 = English poetry written by a poet born in the year 1809 (stands for Alfred Tennyson)
- d) O111,2N1 = English plays; it is a collection of plays where the youngest author born in the year 1916.
- e) O15,6 = Sanskrit prose
- f) O155,1 = Marathi poetry
- g) O35,3 = Telugu fiction
- h) O111,4L40 = Letters of a British literary figure born in 1740. (James Boswell's Correspondence)
- i) O152,2 = Hindi plays
- j) O5921 = Rumanian literature

2.3.3 LEVELS OF SECOND ROUND

The Second Round, First Level Personality facet will be denoted by the symbol [2P]. The Second Round, Second Level Personality facet will be denoted by the symbol [2P2]. For example,

Audio-visual method of teaching physics at the secondary school.

Let us break up according to the five fundamental categories.

- Audio-visual = Personality [P]
- Method of teaching = Energy [E]
- Physics = Personality [P]
- Secondary School = Personality [P]

For each subject, the order of the facets have been fixed and in the above case they fall as follows :
 The main class is Education. (---) High School (---) Secondary School [P] + Teaching method [E] + Physics [P] + Audio-visual [P]

T [P]	[E]	2 [P]	[2P2]
Secondary education	Teaching Technique	Second round Personality (Subject Physics)	Second round Second-level of personality (Audio-visual)
2	3	C	1

= T2:3(C), 1

Interpretation

T = Education

T2 = Secondary education

T2 : 2 = Teaching technique in secondary education

T2 : 3(C) = Teaching technique of Physics in secondary education

T2 : 3(C) : 1 = Teaching technique of Physics in secondary school through audio-visual method.

2.3.4 LEVELS OF THIRD AND LATER ROUNDS

Ranganathan has not used levels in Third Round in CC (Ed.6).

Self Check Exercise - 4

Classify the following titles by CC:

- Trends in modern literature*
- Aristotle's theory of poetry*
- Henry James (1843-1916) : *The turn of the Screw* (American Novel — 12th work)
- Richard B. Sheridan (1751-1816) : *The rivals* (His 7th work; written more than eight works)
- H.R.F. Keating (ed.) : *Agatha Christie* (1891-1976), the first lady of crime.
- Mathew Arnold : *The letters of Mathew Arnold* (1822-1888).
- J.W. Goethe (1749-1832) : *Faust*, a tragedy, translated into English by Alice Raphael.
- Kandasa : *The Cloud messengers*. Translated from Sanskrit *Megha-dootam* (Kalidasa was born in the 5th century).
- Jalal au-Din Rumi (1207-1273) : *Selected poems*
- The Penguin book of Chinese verse*

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this unit.

category was assigned its own connecting symbol except for Space and Time. Space and Time were assigned dot [.] which was later changed into inverted comma for Time. This innovation has avoided the cluttering of the connecting symbols and the subject referred earlier.

History of India upto 1947 can be represented :

V44N47

Now there is no ambiguity. When no other connecting symbols are given it indicates that those facets are absent. But the connecting symbols for Energy facet either for the first, second or later rounds is the same, i.e., Colon. This has also been resolved to a large extent in the 7th edition of CC. As we are classifying by the 6th edition, we have to follow the rules of the 6th edition. Hence for the subject '*Science of diagnosis*' the number to be given is L:4:3. The interpretation is

- L = Medicine
- 4 = Diseases
- 3 = Diagnosis

If you have to take any facet from [2E] an appropriate facet from [E] to be taken first. In several cases it is shown in the schedules and when not mentioned you have to reason which facet is appropriate. In this case diagnosis is done to find out the disease. Hence before diagnosis, disease should precede it and hence the number for '*Science of diagnosis*' will be L:4:3. So it is a basic rule as far as the sixth edition of CC is concerned. You cannot take a number from [2E] [3P] without taking first [E] [2P]. Before going further into details of other rules, let us try to work out some examples :

1. *A book of surgery*
2. *The need for prison reforms*
3. *Storing of fertilizer*
4. *Cold storage of fish*
5. *Target to improve the life of villagers*

The class numbers for the above examples are :

1) *A book of surgery* :

$$\begin{array}{l}
 \text{Main Class} = \text{Medicine} = \text{L} \\
 \text{Facet Formula} = \text{L [P]} : \text{[E] [2P]} : \text{[2E] [3P]} \\
 \qquad \qquad \qquad | \qquad \qquad \qquad | \qquad \qquad \qquad | \\
 \qquad \qquad \qquad \text{Absent} \qquad \qquad \qquad ? \qquad \qquad \qquad \text{Surgery} \\
 \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad | \\
 \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad = 8
 \end{array}$$

Surgery is given under [2E] [3P] and hence an appropriate number from [E] is to be taken first. Surgery is done only when there is some disease and hence the number will L:4:8.

2) *The need for prison reforms*

$$\begin{array}{l}
 \text{Main Class} = \text{Sociology} = \text{Y} \\
 \text{Facet Formula} \text{ Y [P]} : \text{[E] [2P]} : \text{[2E] [3P]} \\
 \qquad \qquad \qquad | \qquad \qquad \qquad | \qquad \qquad \qquad | \\
 \qquad \qquad \qquad \text{Absent} \qquad \qquad \qquad ? \qquad \qquad \qquad \text{Prison} \\
 \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad 62
 \end{array}$$

We have to find an appropriate number from [E]. The question of prison comes only when there is crime and the appropriate number is

Y : 45 : 62

3) **Storing of fertilizer**

Main Class = Agriculture = J

Facet Formula J [P] : [E] [2P] : [2E] [3P]
 Absent ? Fertilizer Storing
 | |
 4 8

In this case you do not have the difficulty, because it is stated that [2P] is applicable for 2 of [E] and hence the number will be J : 24 : 8

4) **Cold storage of fish**

Main Class = Animal Husbandry = KX

Facet Formula KX [P] : [E] [P] : [2E] [3P]
 Fish ? Cold Storage
 | |
 332
 It is stated
 Foci in [2E] [3P]
 same as in J
 = 8

We have to find an appropriate number from [E] and only number which is applicable is "produce", i.e., 7. Hence the number will be KX332:7:84

5) **Target to improve the life of the villagers**

Main Class = Sociology = Y

Facet Formula Y [P] : [E] [2P] : [2E] [3P]

Before assigning the number you have to understand the subject- the meaning of the title is to improve rural life hence

[P] = Rural = 31
 [E] = ?
 [2E] = ? — there is one number for improvement under [2E] [3P] i.e., 7 — and it is also stated that the numbers are applicable to 1, 3, 7 and 8 of [E]. If you now check the numbers 1, 3, 7 and 8 of [E], that numbers 1, 3 & 8 are in no way connected to improvement. The focus 7 - Personality is the only applicable number and hence the number will be :

Y31:7:7

2.4.2 DIFFERENTIAL FACETS

It may be made clear here that each focus in a facet need not be qualified by the whole of the preceding facet. E.g. in Library Science each focus in the Personality Facet may be qualified by the whole of the Problem Facet. But in many cases, different foci in the same facet require different facet to qualify them, e.g. in Engineering, Irrigation, Building, Road, Railways, Airways, Mechanical Engineering, Electronics, Electrical Engineering are some of the foci in [P], but their qualifying foci in [P2] is not common. Such occurrences are common in the schedule because the features of each subject is not alike and hence the foci also differs. This will be the case even in respect of [E] also. This type of facets are called Differential Facets. Some of the examples of Differential Facets are worked out below :

1. *Lending operations in banks*
2. *How to avoid double taxation of income tax*
3. *Taittiriya Brahmana*
4. *Indian law of trusts*
5. *Generation of electricity*
6. *Television engineering*
7. *Signalling system in Indian Railways*
8. *Library work in elementary schools*
9. *Admissibility of circumstantial evidence in Indian law*
10. *Hindu succession Act.*

The solutions to the problems are worked out below :

1) *Lending operations in banks :*

Main Class	=	Economics	=	X
Facet Formula		X [P]	:	[E] [2P]
		Bank		Lending
		62		1
X62:1				

It is likely that the focus in the Energy facet may be interpreted as consumption. It is not so. For 'Banking' there is a separate Energy Facet given in page number 2.114. There 1 is lending. The general foci given in the schedules for Economics are not applicable to the Personality Facet of Banks. A separate Energy Facet provided for some of the Personality Facet is called Differential Facet. The nature of some subjects are such, they are to be treated according to their quality of the subjects. The next example is also on the same pattern.

2) *How to avoid double taxation of income-tax :*

Main Class	=	Economics	X	
Facet Formula		X [P]	:	[E] [2P]
		Income tax		Double Taxation
		724		32

For taxation also a separate Energy Facet has been provided.

X724:32

3) *Taittiriya Brahmana*

Main Class = Religion = Q

Facet Formula	Q [P]	:	[E]	[2P]
	Taittiriya		Brahmana	
	125		22	

Q125:22

There is a separate Differential Facet for Vedic religion and 22 here stands for Brahmana as given under [E] [2P]

4) *Indian law of trusts*

Main Class = Law = Z

Facet Formula	Z [P]	,[P2]	,[P3]	,[P4]
	India	?	Trusts	not applicable
	44		414	

If the notation under [P2] is omitted the number becomes Z44, , 414 which under the Rules cannot be done. Hence it is necessary to find [P2] which governs foci [P3]. In this case it is actually simple, because it is stated under foci [P3] that it is applicable to Property in [P2] and hence the number becomes

Z44,2,414

Interpretation is

Z	=	Law
Z44	=	Indian Law
Z44,2	=	Indian Law governing property
Z44,2,414	=	Indian law of trusts

5) *Generation of electricity*

Main Class = Engineering = D

Facet Formula	D [P]	,[P2]	:	[E]	[2P]
	Electrical	Generation			1
	66	1		Absent	

D66,1

You will find digit 1 at several places under foci [P2], but they are all not applicable to electricity. Only the Differential facet given for 66 Electrical Engineering is the appropriate [P2] under which 1 is generation.

6) *Television Engineering*

Main Class : Engineering = D

Facet Formula D [P] , [P2] : [E] [2P]

Coining of the number is simple even if you do not know that television engineering should go under electronics. If you trace the number for television which figures under [P2] as 45 and is stated applicable to 65 of [P], electronics. Hence the number will be D65, 45.

7) *Signalling system in Indian Railways*

Main Class : Engineering = D

Facet Formula	D	[P]	,	[P2]	:	[E]		[2P]
							┌───┐	
		Railways		Signalling				
							Absent	
		415		94				

94 Signalling is given under [P2] applicable to 415 of [P]. India can be represented by Space Isolate and hence the number will be

D415,94.44

8) *Library work in elementary schools*

Main Class = Education = T

Facet Formula	T	[P]	:	[E]	[2P]	,	[2P2]
	Elementary			Students work			Library work
	15			4			2

Class No. T15:4,2

Please note the digit 2 (library work) is applicable to 4 of [E]. Without taking [E] you cannot take [2P2].

9) *Admissibility of circumstantial evidence in Indian law*

Main Class = Law = Z

Facet Formula	Z [P]	,	[P2]	,	[P3]	,	[P4]
	India		Evidence		Admissibility		Not applicable
	44		94		3		

744,94,3

There is a separate differential facet for 94 of [P2]. In the Main Class Law there are several such differential facets and while choosing the facet, care to be taken which are applicable to which facet.

10) Hindu Succession Act

Main Class = Law = Z

Facet Formula	Z [P]	, [P2]	, [P3]
	Hindu	Property	Succession
	Q2	2	6

Z(Q2), 2, 6

2.6 SUMMING UP

In this unit we

1. explained the importance of Rounds and Levels; and
2. also explained the significance of connecting symbols. From above examples we find that in CC6 you can find Rounds of Personality manifest in the main classes D, J, KX, L, N, T, V, 2 etc.

We have also discussed about the significance the application of Rounds and levels in CC6. The concept of Rounds and levels were elaborately applied in CC7.

2.7 ANSWERS TO SELF CHECK EXERCISES

1. a) S38:43 (S Psychology, 38 Old age [P], 43 Memory [E])
b) D64:4 (D Engineering, 64 Heat engine [P], 4 Design [E])
c) Q7:26 (Q Religion, 7 Muhammadanism [P], 26 Tradition [E])
d) U8.5 (U Geography, 8 Travel [P], 5 Europe [S])
e) P15:2 (P Linguistics, 15 Sanskrit [P], 2 Morphology [E])
f) L:3 (L Medicine, 3 Physiology [E])
g) H411 (H Geology, H411 Volcano)
h) KX2:6 (KX Animal Husbandry, 2 Cattle [P], 6 Breeding [E])
i) U6.677'M (U6 Economic geography [P], 677 Egypt [S], M 19th Century [T])
j) X415.44 (X Economics, 415 Railway [P], 44 India [S])
k) Δ2:864 (Δ Spiritual Experience, 2 Hindu [P], 864 Astrology [E])
l) D:32 (D Engineering, 32 Strength of material [E])
2. a) J381:3:5 (J Agriculture, 381 Rice [P], 3 Propagation [E], 5 Transplanting [2E])
b) L42:4:7 (L Medicine, 42 Throat [P], 4 Disease [E], 7 Surgery [2E])
c) Y57:4:67 (Y Sociology, 57 Slum [P], 4 Social pathology [E], 67 Relief work [2E])
d) KX31:71:8 (KX Animal Husbandry, 31 Secretion [P], 71 Produce, Milk [E] cum [2P], 8 Storing [2E])
e) J382:7:5 (J Agriculture, 382 Wheat [P], 7 Harvesting [E], 5 Cleaning [2E])
f) L:4:616:41171 (L Medicine, 4 Disease [E], 616 Injection [2E], 41171 Salt [3M] from E Chemistry)

3. a) T2:3,3 (T Education, 2 Secondary [P], 3 Teaching Technique [E], 3 Medium of Instruction [2P2])
- b) Z,7,73,564 (Z Law, 7 Cause of action [P2], 73 Ex parte [P3], 564 Temporary [P4])
- c) D43,8:4.44 (D Engineering, 43 Air way [P], 8 Aerodrome [P2], 4 Design [E], 44 India [S])
- d) B331,1 (B331 Ordinary differential equations, 1 Linear [P2])
- e) K97,3 (K Zoology, 97 Mammals [P], 3 Circulatory system [P2] taken from L Medicine)
- f) NA44,J (NA Architecture, 44 Indian [P], J Moghul [P2])
- g) I42,15:3 (I Botany, 42 Fern [P], 15 Leaf [P2], 3 Physiology [E] taken from G Biology)
- h) D7,74 (D Engineering, 7 Nuclear [P], 74 Waster-product [P2])
- i) HX551,1:11 (HX Mining, 551 Coal [P] taken from F Technology, 1 Pit [P2], 11 Excavation [E])
- j) J371:7:84.4445'n3 (J Agriculture, 371 Apples [P], 7 Harvesting [E], 84 Cold storage [2E], 4445 Himachal Pradesh [S], n3 Summer [T2])

4. a) The subject covers all literature and only broad number can be given = O

b) Language is multifocal and hence absent. Form is poetry.

Poetry = O,1C615 Aristotle's date of birth is 384 B.C. (Hence 999-384)
There is further provision for Common Isolate.

c) O111,3M43,24 In CC there is no separate number for American literature.
24 is work number.

d) O111,2L51,17 It is a English play. 17 is work number.

e) O111,3M91 It can be critical study of her works or her biographical work.
A common isolate is to be provided.

f) O111,4M22 Literature in the form of letters is to be assigned the form number 4.

g) O1113,2L79,F Though the book is in English it is to be classified under the original language i.e., German. The form is play. The work number is shown by alphabetical device. You can also give 1.

h) O15,D40,M Sanskrit poetry; Kalidasa's approximate date of birth is given.
M is for Meghaduta.

i) O164,1G07 Persian poet. Collection number can be given.

h) O41,1 Chinese is derived from [S].
There is provision to attach Common isolate for collection of poems.

2.8 ASSIGNMENTS

Classify the following titles using CC6 :

- a) *An account of Rabindranath Tagore's works*
- b) *Three modern Japanese plays* (Youngest author born in 1934)
- c) *Making of American Party system 1789 to 1809.*
- d) *Panchayat Raj in Rajasthan.*
- e) Kalidasa : *Shakuntala.*
- f) *Basic grammar of modern Hindi.*
- g) *Inflammation of Eyelids.*
- h) *Construction of over-head transmission wires.*
- i) *Biochemical analysis of Alkaloids.*
- j) *Cold storage of apples in India in summer season.*

2.9 GLOSSARY

Connecting Symbol : Any digit in a class number prefixed to a facet number other than the Basic Class number.

Level : In each Round, there may occur more than one manifestation of a given fundamental category. Each of these manifestations is a Level.

Round : In a compound focus, each fundamental category may manifest more than once. Each such manifestation is a Round.

UNIT-3: DEVICES; SYSTEMS AND SPECIALS

Contents

- 3.0 Aims and Objectives
- 3.1 Introduction
- 3.2 Devices
 - 3.2.1 Chronological Device (CD)
 - 3.2.2 Geographical Device (GD)
 - 3.2.3 Subject Device (SD)
 - 3.2.4 Alphabetical Device (AD)
 - 3.2.5 Super-Imposed Device (SID)
 - 3.2.6 Mnemonic Device (MD)
 - 3.2.7 Classic Device (CLD)
- 3.3 Systems and Specials
 - 3.3.1 Systems
 - 3.3.2 Specials
- 3.4 Summing Up
- 3.5 Answers to Self Check Exercises
- 3.6 Assignments
- 3.7 Glossary

3.0 AIMS AND OBJECTIVES

In this Unit we are going to discuss the use of 'Devices' in Colon Classification, and to appraise the concept of 'Systems and Specials' in a classification scheme.

By the end of this unit you shall be in a position to

- describe what are Devices, and different types of Devices;
- explain the meaning of Systems and Specials;
- discuss the differences in Facet Formula for Systems and Specials; and
- workout examples covering Devices and Systems and Specials.

3.1 INTRODUCTION

When new subjects crop up and the existing schedules fail to map them, the classifier experiences difficulty to assign them any class number. The Colon Classification provided some devices which guide the classifier for coining new isolates and the forging of numbers co-extensive with them. These devices have been used in a number of schedules to avoid enumeration and shorten them.

3.2 DEVICES

Colon Classification uses some Devices for formulation of isolates. These are usually mentioned in the schedules. They help in formation of new isolates not given in Schedules as and when needed. These Devices help the classifier to coin numbers for new ideas. Following are the Devices:

1. Chronological Device (CD)
2. Geographical Device (GD)
3. Subject Device (SD)
4. Alphabetical Device (AD)
5. Super-Imposition Device (SID)
6. Mnemonic Device (MD)
7. Classic Device (CLD)

3.2.1 CHRONOLOGICAL DEVICE (CD)

The Chronological Device (CD) uses characteristic 'Time' information or further sub-division of an isolate which is given in a schedule. Wherever chronological arrangement is desired or preferred, this device is used.

The (CD) uses for its purpose, the year or period of birth or origin or discover or initiation or commencement of occurrence of the subject under consideration.

It is "for the formation or the subdivision of an isolate; capable of chronological formation or subdivision, or when the individualisation of the isolates or sub-isolates may be made to depend conveniently on the period of origin or birth or on the year of first investigation or on the year of discovery or on the year of initiation or commencement or on the year of occurrence or on the year that may be definitely associated with the respective isolates in any other manner or for any other reason" (*Colon*, p.129). In few Main Classes there are what are called Specials and Systems and Chronological Device (CD) has been used to derive the class of Systems. This we will discuss at a later state. Some examples with the use of (CD) are given below :

In Mathematics (CD) has been extensively used :

B13,5L = *Goldbach's theorem*. L Stands for 18th century.

A theorem initiated by Goldbach in the 18th Century.

B239M = One of the theories of equation initiated by Abelian in the 19th century.

M for 19th Century.

In the Main Class Fine Arts, the style of Architecture, Sculpture, Painting and Music which became pronounced at a particular period is shown by (CD). In fact for Style both (GD) and (CD) are used to represent the subject, e.g.

German Music of 16th Century NR55,J

Where NR = Music

55 = Germany

J = 16th Century

Italian Paintings of 18th Century

NQ52.L

Where NQ = Painting
52 = Italy
L = 18th Century

In Literature Class the authors are individualised by (CD), taking the year of their birth.

Shakespeare's Plays O111.2J64

Where O111 = English Literature
2 = Drama
J64 = 1564 = the year Shakespeare born

This Device has also been used in Religion, Education and History classes. The (CD) is also used in the formation of 'System' in Physics, Agriculture, Medicine, Psychology, Economics, etc.

Examples :

1) *Introduction to the Dewey Decimal Classification, 1955*

D.D.C. is a library classification scheme. Therefore, the (BC) is Library science. Classification is a problem - [E] [2P] facet. There are many classification schemes, DDC is one of them. Classification needs further subdivision to find out class number for individual scheme. Therefore, it is further divided on the basis of Chronological Device (CD). To achieve this, it is essential to know when the system originated. It originated in 19th century. As this is the first system of Library classification, so, we may confine to the century only.

Library Science = (BC) 2
Classification = [E] [2P] : 51
DDC (19th century) = M

So the class number becomes 2:51M

Note: Digit 'M' after '51' stands for 19th century as given in 'Chapter 3 Time Isolate'. (Part-2)
It is added immediately after the number, as it is meant to further divide the isolate.

2) *Horne (C Silvesle) : Institutional Church 1906*

Its (BC) is Religion.

Institutional Church is a sect of Christianity - hence [P] facet.

Religion (BC) Q

Institutional Church (1890's) : Q68M9

Note: As directed under Foci in [P] '68' in the schedule of Religion, other sects are got by (CD).
In the above example, digits 'M9' = 1890's represent the epoch of origin of the sect.

3) *Indian National Congress constitution, 1955*

Indian National Congress is a political party which was founded in 1885.

The book relates to (BC) History. India is deemed as a community - [P] facet.

Political Party - Indian National Congress (F.1885) is a constituent of community or [P2] facet.

Constitution is a problem - [E] facet.

History (BC) V

India [P] 44

Indian National Congress (F.1885) [P2], 4M85

Constitution [E] : 2

So the class number becomes V44.4M85:2

Note: As per instructions in the schedule of 'V History' specific party is to be got by (CD).
Digit 'M85' represents year of origin of the Congress party.

- 4) *Atlantic Alliance (North Atlantic Treaty Organisation or NATO - founded in 1949) :
A short guide, 1964.*

Its (BC) is History V

NATO (F.1949) [P] 1N49

then the class number becomes VIN49

Note: NATO is a world organisation. Number for it is to be formed by (CD) as instructed in 'chapter 4 Space Isolates' 1A Near-Sovereign formation :

For constructing the number by (CD), the epoch used may be a century / decade / year. Usually, the rules are given for this purpose in schedules of various subjects. But, whenever it is not specified, century is used if the occurrence is the only one or the first one in the century. If it is the second occurrence the decade or latest Effective Decade (LED) is used. If there are two or more than two occurrences in the same decade, the exact year of occurrence is given for instance, in example 4, exact year is given. In the same decade 1940's UNO, common health, NATO and some other such organisations were also formed.

Besides this, we have already seen that (CD) is used for 'style' in (BC) 'N Fine Arts' for author facet in (BC) 'O Literature', for 'stage in (BC) 'P Linguistics' and for some facets of the Common Isolates etc.

3.2.2 GEOGRAPHICAL DEVICE (GD)

'Space' or geographical area, not only, appears under 'fundamental category Space' (as explained in Unit 1), but also is used as a characteristic for forming or sharpening any isolate, i.e., for further division of any isolate as and when directed in the schedules. It is then known as 'Geographical Device (GD).

Under Language Isolate other languages 4 to 9 are to be derived by the Geographical Device, i.e.,

Japanese Language	42
Siamcse Language	433
Mangolian Language	496
Soma'i Language	683

In the Language Schedule the jargon, slang and dialect of a language of a particular area can be presented by Geographical Device, e.g.

Hindi Dialect of Rajasthan P152,9D4437

Where P = Linguistics (Main Class)
152 = from the Language Schedule (p. 2.26) for Hindi
9D = Dialect from foci [P2]
4437 = Rajasthan from Space Isolate

American Slang P111,9B73

Where P111 = English Language
9B = Slang
73 = USA from Space Isolate

In Sociology Class, the social classes of people of a country are derived through Geographical Device. So also in Philosophy Class, philosophy of a country is derived by Geographical Device. In History and Law focus in [P] is got by Geographical Device.

Z56 = *British Law*. (56 from Space Isolate)
V56 = *History of Britain*. (56 from Space Isolate)
R856 = *Philosophy of UK*. R8 = other systems (Got by (GD) 56 is UK).
Y756 = *Classes of people in UK* (Y7 = by territory; 56 is UK, got by (GD))

Such examples are common. The Device secures conformity to the Canons of Consistent Sequence, Helpful Sequence, Hospitality in Array and Chain.

Examples :

1) *Indonesian - English Dictionary, 1961*. The book relates to languages and its (BC) is 'Linguistics'. Two languages are given in the title - Indonesian and English. The first language is Indonesian, in which the words appear and their meanings are given in English. According to Rules (see Rule No. P9k - page No. 1.106 of CC)

- i) The language in which words appear in the dictionary is given under class number; and
- ii) The languages in which meaning is given comes under book number. Number of Asian languages is to be given in the 4 other Asian languages as given in the 'Chapter 5 Language Isolate'. Indonesian is an Asian language. To get its number, Geographical Device (GD) is applied. (see Rule no. 54 - Page No. 1.54 of CC).

Indonesian is a language - [P] facet 436

Dictionary is a problem - [E] facet.

Dictionary is a type of arrangement.

(ACI) for cyclopædia is used -k

So the class number becomes P436:4k

- Note: i) Number '436' for Indonesian language is the number for Indonesia in 'Chapter 4 Space Isolate'. Thus the above number for Indonesian language is got by (GD).
- ii) Meaning is of words. But word or element facet [P3] is not given in the class number (see Rule No. P48, Page No. 1.106 of CC).

2) *Ancient 1st millennium BC Egyptian religion : An interpretation*

Religion is (BC) Q

Egyptian is a kind of religion - [P] 8677

1st millennium BC [T] 'C

So the class number becomes Q8677'C

Note: As directed in the schedule of 'Q Religions', isolate '8 other religions' in [P] is to be divided by (GD). Hence number for Egypt '677' as given in 'Chapter 4 Space Isolate, appears after '8 other religions'.

3) *Patterns of Soviet Thought, 1966.*

(It is a historical account of Soviet thought upto 1950).

Thought or philosophy other systems is (BC) R8

Soviet or Russian system of Philosophy - [P] 58

History - [ACI] v

1950 - [T] 'N5

So the class number becomes R858v'N5

Note: As per instructions in the schedule of 'R Philosophy' 'R8 other systems' are by (GD). Hence number for Russia '58' as given under Space Isolate, follows digit '8'.

4) *On being Czechs : Reflections towards a better understanding of the Czech character and psychology.*

Psychology is its (BC) S

Czech is [P] 75925

Character [E] [2P] : 74

So the number becomes S75925:74

Note: Number for 'Czech 5925 : in chapter 4 Space Isolate, succeeds that of '7 Race' and is got by (GD) as per direction in the (MC) 'Psychology'.

5) *African folk tales :*

Folk tales are treated as a subdivision of (BC) sociology in the CC.

So, sociology is its (BC). African is a geographical social group - [P].

Folk tale is a problem - [E] [2P] Facet.

Sociology (BC) Y

African [P] 76

Folklore [E] [2P] : 351

So, the class number becomes Y76:351

Note: Number for Africa, as a territorial division is got by (GD) as per direction under 'Foci in [P] 74 to 79 Territorial division' of (BC) 'Y Sociology'.

It may be summed up from the above, that (GD) is used for further subdivision of [P] facet in many a (BCs), wherever geographical characteristic is warranted.

There are specific instructions for it in the following (BCs) :

- Δ Spiritual experience and Mysticism
- O Literature
- P Linguistics
- Q Religion
- R Philosophy
- S Psychology
- Y Sociology

[P] facet of (BC) 'Δ Spiritual experience and Mysticism' is same as that of (BC) 'Q Religion'. Foci in [P] of both the (BCs) 'O Literature' and 'P Linguistics' are languages. In rest of the (BCs) instructions appear under schedules.

Besides the above, (GD) is also used for community i.e., [P]_a facet of (BCs) 'N Fine Arts', 'V History' and 'Z Law'.

6) *History of India* (upto 1947)

Under the Main Class History, a facet formula is provided

V [P], [P2] : [E] [2P] ' [T]

In the Rules it is also explained what these facets are and from where the numbers are to be taken.

In the Schedules under, Main Class V, it is stated that

Foci in [P] to be got by (GD)

[P] is stated as the community of people. History is the story of the people of the land and hence the country is not space but personality, because we are not talking of the physical features of the Country which will be geography. In history the discussion being of the nation and the people it is treated as personality.

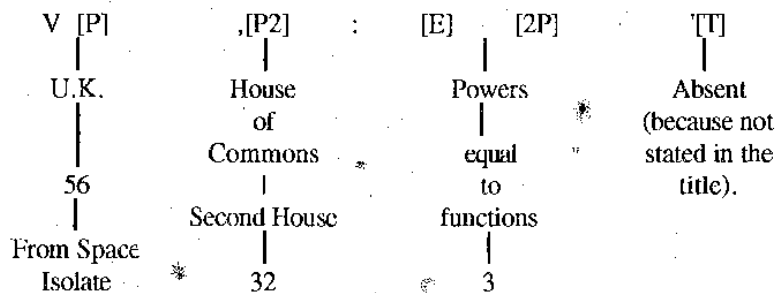
The next explanation is Foci in [P] to be got by (GD) means in the History Schedule [P] is not enumerated but the same is to be taken as given in the Space Isolate (GD stands for Geographical Device this we will discuss when we take up discussion on Devices). In other words you are directed to find the number in Space Isolate for India, which is 44, the number then for History of India will be V44. The only other facet that is present in this subject is Time. The book covers the history of India upto 1947. The date to be given is N47. So the full number or the specific class number is V44N47. In unit one it was stated why a dot is not given in case of the country number (V44). It is because "44" here is not [S] but [P] and hence there is no connecting symbol (.)

7) *Powers of the House of Commons*

Your first duty is to find to which Main Class the title belongs. Once it is known check with the help of the facet formula what facets are present in the given title. According to Ranganathan if the subject deals with a country it is to be classified under history and only theoretical aspects go under Political Science. Political Parties of India go under History of India and not under Political Science.

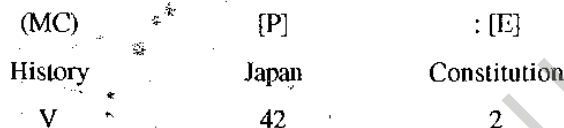
Foreign policy of a country is classified under History and not Political Science. The argument is that today's politics of a country is History tomorrow. It is on this basis the books which we commonly think as Political Science are classed under History.

Coming to the subject on hand, the book is to be classified under History of U.K. Following is the facet formula :



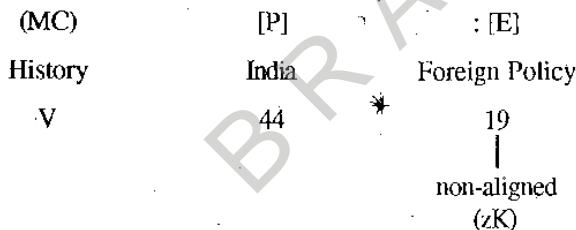
= V56:32:3

8) *Constitution of Japan*



= V42:2

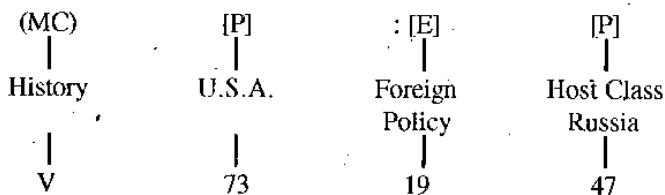
9) *Non-aligned policy of India*



= V44:19(zK)

In the Annexure p.28 there is a note regarding the expansion of the number foreign policy. (zK) is non-alignment.

10) *Relations between U.S.A. & Russia.*



= V73:19:47

There is a correction in the Schedules. 19 (Foreign Policy) is treated as a host Class (see p.28 - Annexure of CC)

11) **Greek Philosophy**

Philosophy = R

Other systems of philosophy = R8 by (GD)

Greek Philosophy = R8 by (GD)

The meaning is that the number R8 to be further expanded by adding concerned country number. (GD) means Geographical Device, it is a direction to take the further number from Space Isolates as given in page 2.8. For Greek philosophy the number 51 from Space Isolate to be added to R8. The number then will be R851.

12) **Indian law of contract**

Main Class Law = Z

Facet Formula Z [P] , [P2] , [P3] , [P4] Foci in [P] is not enumerated, there is only a direction that Foci in [P] to be got by (GD) and by (SD). As in the case of previous example, in the same way you are directed to take the number from the Geographical Isolate. We have to take India 44. Indian law then will be Z44 and number for 'contact' under [P2] is 3. Hence the number for Indian law of contract will be Z44,3.

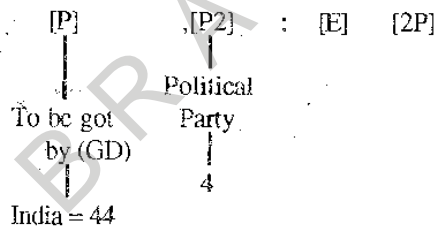
13) **Birth of Janatha Party**

In Colon Classification political parties of a country are classified under History Class,

Main Class V

Facet Formula

V



V44,4 = Political parties in India. To individualize a specific political party, it is to be derived by (CD). In the schedules it is stated 4A by (CD). (CD) stands for Chronological Device or the direction is that the further number to be derived by applying Time Isolate. Time to be taken is the year the party came into being. Janatha Party was born in 1977. This is to be converted into Time Isolate. i.e. N77. Therefore the number will be V44,4N77. While expanding 4A the number A is to be omitted.

3.2.3 SUBJECT DEVICE (SD)

So far, we have classified such titles, as involve a single (BC) only with or without facets. The boundaries of a (BC) are enumerated in the form of facets and isolates in its schedule.

However, there is a limit for enumerating all possible isolates under a (BC). Therefore, some schemes of classifications provide rules for borrowing facets/isolates from other (BCs) in case of need.

Whenever, a (BC) employs another (BC) with or without its isolates for formation or subdivision of its isolates or for extending the schedule, it is called subject device or (SD) in CC.

The borrowed isolate number(s) from a (BC) by (SD) when attached to the host class, are enclosed in circular brackets. And all the numbers within a bracket are treated as if they constitute one digit. The

(SD) can be used wherever there is direction in a (BC). It can also be employed without such direction, whenever appropriate, for formation or subdivision of an isolate or for extending the schedule on the basis of the subject characteristic.

Examples :

- 1) *The cross and the crown* (Negros in the United States) 1972. Negros is a social group. Therefore, it is studied under (BC) Sociology. Negros is an ethnological group. Hence it comes under facet [P]. United States is a geographical area facet - [S]

Sociology (BC) Y
 Negros [P] 73 (S76)
 United States [S] .73

So, the Class number becomes Y73(S76).73

Note: Under isolate 73 Ethnological division of Foci in [P]. There is a direction : other divisions by (SD). In S psychology Negro is enumerated. Therefore, it is taken from that (BC). The number 'S76' is put under circular brackets.

- 2) *Medical Library* 24(L)

Where 2 = Library Science
 4 = Special Library (Business)
 (L) = Medicine by (SD)

- 3) *Law Library* 24(Z)

Where 2 = Library Science
 4 = Special Library (Business)
 (Z) = Law by (SD)

- 4) *Architecture of Hospital buildings* NA,8 (L:14)

Where NA = Architecture
 8 = Other Buildings [P3]
 (L:14) = Hospital by (SD)

- 5) *Education of Scheduled Castes* T9(Y 5927)

Where T = Education
 9 = Other classes (to be divided by (SD))
 Y5927 = Harijans (Sociology)

- 6) *Automobile Industry* X8(D5133)

Where X8 (A) = Industry (Divisions by (SD))
 D5133 = Motor Car (Engineering)

- 7) *Pharmaceutical Industry* X8(LX8)

Where X8 (A) = Industry (Divisions by (SD))
 LX8 = Pharmacy

The numbers which are derived by (SD) are to be put in Parentheses.

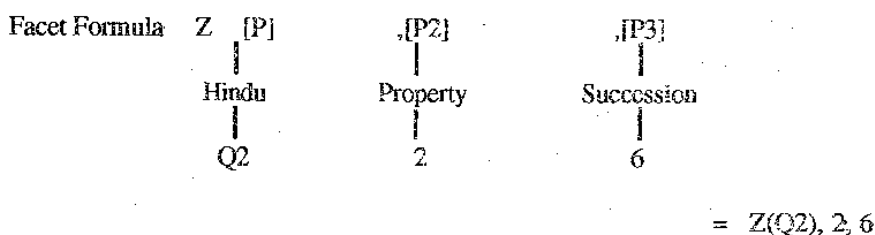
8) *Muslim Law*

Main Class - Law = Z

Foci in [P] to be got by (GD) and by (SD). In this case Geographical Isolate is not applicable as no country is given, instead a religion is applicable. The direction in such cases is to derive the number by Subject Device (SD). You have to find in such cases what subject is applicable. In this case you have to find the number for Islam, i.e., Q7. So the foci in [P] will be Q7 or the number should be ZQ7. However under the Rules a number derived through the Subject Device is to be put in brackets. Hence the number for Muslim Law will be Z(Q7).

9) *Hindu Succession Act*

Main Class = Law = Z



Using (SD) as [E] Isolate

So far the discussion was restricted to the Schedules where you are directed to sharpen an isolate by Subject Device. But Subject Device has also been used as Energy Isolate.—EC directs that Subject Device "may be used whenever warranted to extend the schedule in any [E]. The (SD) should be more abstract than the (BC) in such a case". Using Subject Device as an energy isolate is not easy. One has to understand the subject thoroughly because it is an application of one subject over another subject. Below is given an example by which you can differentiate between the subjects :

- i) *Psychology for teachers.*
- ii) *Educational psychology*

In the first case the subject of the book is psychology but biased towards education. In the second case the subject is intermingled and cannot be separated, only thing that can be distinguished is that education is the first phase and psychology is the second phase.

The number for *Psychology for teachers* is SobT and the number for *Educational Psychology* is T:(S). Some of the common subjects like philosophy of arts, philosophy of science will get the numbers N:(R) and A:(R) respectively. Some such numbers are worked out below :

Examples :

1) *Econometrics*

If the subject is analyzed you derive that econometrics is a statistical study of economics. The first phase is economics and the second phase is statistics. Statistics is a tool for studying economics, and it is to be derived by Subject Device. Therefore the number is

X : (B28)

It may be repeated here that all subjects derived through Subject Device should be put in parentheses.

2) **Mathematical physics**

In this mathematics is a tool and hence second phase. The number will be C : (B)

3) **Psychology of marriage**

Here psychology is tool and hence second phase. Marriage goes under Sociology Class

Y217 = Marriage (17 derived from R4 where 217 is marriage)

Y217:(S) = Psychology of marriage.

4) **Chemical analysis of milk**

Chemical analysis is tool.

Milk = KX31:71 where

KX = Animal husbandry

KX31 = Secretion of animals

KX31:7 = Produce of animals; 7 is from [E]

KX31:71 = Milk, the last 1 is from [2P]

Chemical analysis is E:3 and hence Chemical analysis of milk is KX31:71:(E:3)

5) **Soil microbiology**

It is microbiology of soil and hence microbiology is a tool.

Soil = J:1

Microbiology (Protista) = G91

Therefore microbiology of soil is J:1:(G91)

6) **Sociological perspective in Indian education**

Indian Education is first phase and Sociology is tool. Therefore the number is T : (Y).44

7) **Biology of brain tumor**

Biology is tool for the study of brain tumor

Brain = L71

Brain tumor = L71:472

Its biology = L71:472:(G)

8) **Income tax act (India)**

Income tax = X724

Law of Income tax = X724:(Z)

Indian law of income tax will be X724:(Z44)

9) **Physics of living organism**

Living organism = G1

Its Physics = G1:(C)

10) *Text book of geophysics*

It is physical geology and hence physics is a tool.

Geology = H

Geophysics = H:(C)

3.2.4 ALPHABETICAL DEVICE (AD)

The Rule given in CC is partially reproduced here which is self explanatory. The Alphabetical Device consists in using the first or first two, or first three, etc., initial letters (all in caps) of the name of an entity, existential or conceptual, for the formation or the subdivision of an isolate.

The device is to be used only in cases where no other method of subdivision gives a more helpful sequence. The Alphabetical Device can be applied only in respect of proper names, trade names, and certain technical nomenclature which are internationally current.

Here are given few cases where (AD) can be used. In case of names of cities, towns, villages, rivers and mountains (AD) is applied. In Generalia Class in case of publishers and booksellers (AD) can be used.

Several trade names can be represented by (AD) e.g.

Design of Maruthi Cars D5133M:4

Where D5133 = Motor Car

D5133M = M for Maruthi by (AD)

D5133M:4 = Design of Maruthi Cars.

In Technology Class the process can be represented by (AD), in Agriculture the names of plants can be represented by (AD), e.g. *Basumathi rice* = J381B.

In Literature names of authors can be represented by (AD), e.g.

O111, 1NN

Where O111 = English Literature

O111,1 = English Poetry

O111,1N = English poet born in the 20th century

O111,1NN = English poet of the 20th Century starting with the name N = Norman

More examples based on (AD) are worked out below.

Examples :

1) *Guide to Paris* U8.53.P

Geography (BC) U

Travel [P] 8

France [S] 53

Paris (Population cluster by (AD) P

Note: CC treats Paris as a population Cluster. Hence its number is got by (AD). (Annexure p.22. 4B of CC). It is to be preceded by its country - 53 France.

2) **Asia publishing House : Catalogue of Publications (books)**

Its (BC) is Generalia a

It is bibliography (ACI)

Printed book is material - [P] 14

It is a publisher's catalogue - facet [P2] 3

[P3] by (AD) = APH

Asia Publishing House (APH) are Publishers

So the number becomes ai4, 3APH

Note: Name of the Publisher i.e., [P3] is got by (AD) (p.1.63 of CC).

(3) **Contact process for Sulphuric acid (Technology)**

Its (BC) is Technology F

Sulphuric acid [P] 3616 (E Chemistry)

Contact [E] C

So, the number becomes F3616:C

Note: Number for the contact process is got by (AD) (Rule No. F2 ; p.1.77 of CC).

(4) **Basmati Rice**

Its (BC) is Agriculture J

Basmati rice is [P] 381B

So, the class number is J381B

We have seen from the above examples, that (AD) is used in facet [S] to represent 'population cluster, i.e., name of city, town, village, etc. (Example 1); to form facet [P3] in case of publishers/booksellers' catalogue in 'Generalia Bibliography' (Example 2); to Form facet [E] in 'F Technology (Example 3) and to individualise a number in case of proper names (Examples 4), etc.

Using (AD) with [S2]

While discussing the Rounds and Levels we have stated that Space and Time have their own levels. An isolate in [S2] is to be individualised by (AD) when warranted.

(1) **Ecology of Silent Valley** G:5.4412.g1S

where

G:5 = Ecology

G:5.4412 = Ecology of Kerala

G:5.4412.g1 = Ecology of Valleys in Kerala. g1 is second level of space and a dot is inserted. A separate, schedule for [S2] is given in the Annexure.

G:5.4412.g1S = The name of the valley is derived by Alphabetical Device (S Silent Valley)

(2) *Floral geography of Western Ghats* U35.441.g7W

where -

- U35 = Floral geography
- U35.441 = Floral geography of South India
- U35.441.g7 = Floral geography of South Indian mountains
- U35.441.g7W = Floral geography of South Indian mountains with the name starting with W

(3) *Population of Pune, 1981* Y:5.4435.P'N81

where -

- Y = Sociology
- Y:5 = Demography
- Y:5.4435 = Population of Maharashtra
- Y:5.4435.P = Population of a city in Maharashtra with the name starting with P.
The name of city is derived by Alphabetical Device.
P is second level of Space.
- Y:5.4435.P'N81 = Population of Pune as in 1981

(4) *Indian Everest expedition of 1985* MY26.4.g7E'N85

where -

- MY26 = Mountaineering
- MY26.4 = Mountaineering in Asia
- MY26.4.g7 = Mountaineering in Asia. g7 is second level of space
- MY26.4.g7E = Mountaineering or expedition to a mountain with the name starting with the alphabet E.
- MY26.4.g7E'N85 = Everest expedition in 1985

(5) *Pollution control in river Ganges* D854:5.445.p1G

where -

- D854 = Pollution
- 5 = Specification, in this case it means prevention
(It is to be viewed from the Mnemonic Device)
- 445 = Northern States of India
- p1 = Second level of Space for river
- G = Alphabetical Device for Ganges.

3.2.5 SUPER-IMPOSITION DEVICE (SID)

So far we have considered such subjects, where isolates are taken one at a time from a facet. Isolate numbers corresponding to subjects are either enumerated under the facet in schedules or they are sharpened or formed by some device. But, there may be two or more isolate ideas belonging to the same facet. To illustrate, 'Rural woman of middle class' has three isolate ideas, viz., rural, woman and middle class. All the three isolate ideas belong to the same facet 'Social group'. Hence, they are enumerated separately in the schedule of 'Y Sociology' under facet [P]. They are to be connected together to get isolate number for 'Rural woman of middle class'. The device through which they are brought together is called 'Super Imposition Device'. It employs connecting symbol '-' for the purpose.

The sequence of isolates combined together, should be intelligible and should mean the same isolate idea. In case, any sequence in the combination of isolates is intelligible and specifies the same meaning, the isolate which occurs earlier in the schedule should come first.

An isolate can be further sharpened by the Superimposition method. Caution is to be taken while using this Device. It cannot be used indiscriminately, neither two isolates can be combined at one's fancy. The combination of two or more isolates should produce again one isolate only, for example if we are discussing about *Urban slum dwellers*, in this case urban slum dwellers is one isolate and hence the two separate isolates given under Sociology can be combined as follows :

Urban slum dwellers Y33-57

where Y = Sociology (MC)

33 = Urban [P]

57 = Slum [P]

T3-55 = *Education of female adults* (It can be also reversed and means the same T55-3)

S21-58 = *Psychology of blind boys*

Here also the number can be reversed as S58-21 and it means the same

L25-12 = *Tissue of intestine.*

If the discussion is on 'ear and nose' you cannot combine them by super-imposition method. It will give absurd result.

Examples :

(1) *Current periodicals in English : An Annotated guide, 1978* [Indian].

Generalia is (BC) a

Bibliography is (ACI)

English, Current and Periodical belong to the same - facet [P].

It is a list of publications in an area - facet [P2].

India is the country covered - [P3]

1970's is period covered - [P4].

Generalia Bibliography	(BC)	a
English	[P]	3111
Periodical	[P]	46
Current	[P]	66
List of publications in a geographical area	[P2]	1
India	[P3]	44
1970's	[P4]	N7

So, the number becomes a 3111-46-66;144,N7

(2) *Marine microbial ecology, 1965*

Its (BC) is Biology G

Protista or microbes [P] 91

Marine [P] 9555

Ecology [E] : 5

So the number becomes G91-9555:5

Note: Isolate numbers for Protista marine is got by Superimposition Device.

(3) *Baldness, greyness, dandruff : Treatable or non-treatable.*
(Disease of hair of head).

Medicine is (BC) L

Head is [P] 18

Hair is [P] 881

Disease [E] : 4

So, the number becomes L18-881:4

Note: Isolate number for head-hair is got by Superimposition Device.

(4) *Spanish Empire in America (A.D. 1242-1770)*

History (BC) V

America [P] 7

Spain [P] 541

1770-1242 [T] L7 ← G42

So, the number becomes V7-541'L7 ← G42

Note: Whenever a geographical area is occupied by another country, it is represented by Superimposition Device. The geographical area which is occupied comes first and the country which occupies it, comes after words, as is illustrated in the example.

(5) *History of Byzantine (Greek) Empire. (up to A.D. 1210)*

History is (BC) V

Byzantine (Greek) empire [P] 1-51

1210's [T] G1

So, the class number becomes V1-51'G1

Note: Number for a world empire is got by Superimposition Device. As illustrated in the above example, World comes first and the country whose empire it is i.e., Greece comes after words.

Thus we find that Superimposition Device is used for combination of isolates from the same Facet of the same Level in a schedule, whenever warranted. This device is mostly used, in the personality or matter facet but not in an energy facet.

This device is also used in space facet to denote an occupied territory of one country by another country or empire as illustrated in examples 4 and 5.

(SID) is employed in (BCs), where more than one characteristic is used for division of first order array, such as in a Generalia Bibliography, '2 Library science', 'G Biology', 'L Medicine', 'S Psychology', 'T Education', 'Y Sociology' etc. To illustrate, the first order array in facet [P] of (BC) 'Y Sociology' has been divided on the basis of characteristic social group by - age, sex, family, residence, occupation, birth or status, abnormal and defective, association and others. In CC, such an isolate is called as 'Quasi Isolate'. And an idea formed by Superimposition Device is known as 'Superimposed isolate idea' or a compound isolate idea.

3.2.6 MNEMONIC DEVICE (MD)

Mnemonic means 'to remember' or 'the art of assisting memory'.

Mnemonic Quality is of great value of classifier, therefore, modern library classification notations have this quality. "By mnemonic notation we mean a notation which has always the same significance wherever it appears in the classification".

(MD) is used for further divisions of a class. According to it, we may use digits which may not be there in the schedule, for formation or sharpening of a focus.

The significance of the digits will be according to a convention followed by a scheme of classification.

CC adopts a convention for using digits under seminal mnemonics (p.1.32 of CC). We may use digits according to this convention for formation or sharpening of a focus, whenever it is not enumerated in the Schedule.

Examples :

(1) **Ashok Chanda : Administration**

Political Science is (BC) W

Administration relates to Civil Service [P2] 8

Administration is a problem [E] 98

So, the number becomes W,8:98

Note: Number for administration is not in the schedule of "W Political Science". By (MD), we take digit '8' for organisation administration from Mnemonics given on p.1.32 of CC and open, a division for 'Administration' in second octave as '98 administration'.

(2) **Social Work Programme for women in India 1970.**

Social Work is (BC) YX

Woman [P] 15

India [S] 44

1970 [T] N7

So, the number becomes YX15.44N7

(3) *Social Work among Harijans*

Social Work is (BC) YX

Harijans [P] 5927

So, the number becomes YX5927

(4) *Motor Truck Driving*

The class number is MD5132

(The number is to be given on the analogy of D5132 Motor truck transport)

(5) *Quantitative anatomical analysis of the level of the plants grown under different conditions*

Agriculture is (BC) J

Rice [P] 381

Leaf [P2] .15

Morphology [E] :2

Quantitative analysis [2E] :(E:34)

So, the number becomes J381,15:2:(E:34)

Note: 1) Facet [P2] is not given in the schedule.

By applying (MD) we may get number for leaf from facet [P2] of (BC) 'I Botony'.

2) Number for 'Quantitative' analysis is got by (SD).

Thus, we find that (MD) is used for formation or sharpening of a focus, for formation of a facet, and sometimes even for formation of (BC) either by using digits of seminal mnemonics or by adopting a facet from any other (BC).

(MD) is a powerful device for securing autonomy of classifier. It should be used with utmost care and insight, which comes with experience.

3.2.7 CLASSIC DEVICE

Ranganathan had defined a classical work as one which "expounds" some special subject, usually having embodiments in several versions, adaptations, and translations inspiring other works on itself, and getting copied out and/or brought out in print even long after its origin. Sacred works and works of literature are separately treated and hence not classified as classics.

The purpose of Classic Device is to bring together

- (i) different editions of a classic
- (ii) different editions of each of its commentaries and sub-commentaries.

In the notational plane the Classic Device is formulated by the use of x and the author and work facet. Author facet is worked out by the date of birth of the author or by favoured category device. This is illustrated by the following examples :

(a) NR44x1,1 Sarangadeva: *Sangita-ratnakara*

where NR = Music

NR44 = Indian Music

NR44x1 = x is for classic device and 1 is the first known composer

NR44 .1,1 = Sangita-ratnakara. The last 1 is work number

(b) NR44xJ20,1	Rama-matya : <i>Sarvamela-kala-nidhi</i>
where NR44	= Indian Music
NR44xJ20	= A composer born in 1520
NR44xJ20,1	= Rama-matya's first known work.

Sanskrit language and Indian philosophy has numerous well known works which have attracted commentaries and there are commentaries on commentaries. In such cases the host book and its commentaries should come together and CC has made provision for the same. A worked out number from Part 3 of CC is shown below :

- 1) R66,5x1,1 = Shankara : *Brahmasutra - bhasya*
- 2) R66,5x1,1,1 = Padma-pada : *Panca - padika*
- 3) R66,5x1,1,1,1 = Prakasatman : *Panca - padika vivarana*
- 4) R66,5x1,1,1,1,1 = Akhandananda-muni : *Tatva dipana*
- 5) R66,5x1,1,1,1,2 = Cit-sukha : *Vivarana - Tatparyadipika*
- 6) R66,5x1,1,1,1,3 = Narsinharama-muni : *Bhava -Prakasika*
- 7) R66,5x1,1,1,2 = Amalananda : *Panca - padika darpana*

The numbering method is

- 1) The original work *Brahmasutrabhasya* by Sankara
where R66 = Advita philosophy
R66,5 = Brahmasutra
R66,5x1 = Brahmasutra written by the first known author, i.e., Sankara
R66,5x1,1 = Sankara's first work
- 2) R66,5x1,1,1 = R66,5x1,1 is the same as given under serial number (1).
The last 1 is a Commentary by Padma-pada on Sankara's *Brahmasutrabhasya*
- 3) R66,5x1,1,1,1 = The fourth 1 is the first Commentary on Padma-pada's work by Prakasatman.
- 4) R66,5x1,1,1,1,1 = The last 1 is the Commentary on Prakasatman's work
- 5) R66,5x1,1,1,1,2 = The last 2 is the second commentary on Prakasatman's work
- 6) R66,5x1,1,1,1,3 = Third Commentary on Prakasatman's work.
- 7) R66,5x1,1,1,2 = The last 2 is 2nd Commentary on Padmapada's work

(This continues to a great length. Refer Part 3 pages 43 and 44) The above example is given to show what great extent number building in Colon is possible. Some examples based on Classical Devanagari are worked out below :

- 1) *Studies in Panini's grammar* P15,Cx1

This is a well known Sanskrit work and required a place for itself. Such works are treated as Classical works and to be dealt accordingly.

- where P15 = Sanskrit Language
P15,C = Classical Sanskrit
P15,Cx1 = x stands for classics and 1 is first known author on the subject

2) **Nandikesvara : *Abhinaya-darpana*** NS44x1,1

This is a treatise on Indian Classical dance and calls for separate treatment where

- NS = Dance
- NS44 = Indian dance
- NS44x1 = First known exponent of Indian dance (Nandikesvara)
- NS44x1,1 = Nandikesvara's first work (*Abhinaya-darpana*)

3) **Jalal-ud-din Rumi : *Mathnavi*** Δ73xG07,1

Jalal-ud-din is one of the well known sufi saints and his works pervaded later sufi cult, and hence requires separate treatment. He was born in the year 1207. Sufism goes under the Main Class Mysticism where

- Δ73 = Sufism
- Δ73xG07 = Exponent of sufism who was born in the year 1207 (Jalal-ud-din Rumi)
- Δ73xG07,1 = His first work (*Mathnavi*)

4) **Nannaya-bhattacharya : *Andhra Sabda Chintamani*** P35,Ex1,1

where

- P35 = Telugu language
- P35,E = Ancient Telugu Language
- P35,Ex1 = First classical work on Telugu Language written by Nannaya
- P35,Ex1,1 = Nannaya's first work

5) **Thyagaraja's *Kritanas***

Main Class is Fine Arts and Music is Canonical Class

- NR = Music
- NR441 = South Indian Music
- NR441,K = South Indian music of 17th century
- NR441,KxL59 = A treatise on South Indian music composed by one who was born in 1759, i.e., Thyagaraja
- NR441,KxL59,I = His first work

The Common Isolate x is also provided under Anteriorising Common Isolate, but there is no clash as ACT x is fitted by Space and Time if it is general collection and by Time only if it is individual collection. CC defends this aspect stating that a personal work if it had reached a position to compile one's work into a collection, in such cases Ranganathan states that it has reached classical position and hence there is no necessity of giving some other class number.

Self Check Exercise - I

Construct Class Numbers for the following titles :

- a) *World history from early times to 1945*
- b) *Traveler : Illustrated history of England, 1926*
- c) *Making of American party system 1789 to 1809*

3.3.1 SYSTEMS

Some of the examples of Systems are :

- In *Physics* : Gravitational theory, Kinetic theory, Ether theory, Electro-magnetic theory, Electron theory, Radioactivity, Relativity, Quantum theory and Wave mechanics.
- In *Agriculture* : Forestry
- In *Medicine* : Ayurveda, Sidda, Unani, Homoeopathy and Naturopathy
- In *Psychology* : Experimental, Psycho-analytic, Gestalt, Behaviouristic, Individualistic, Reflexology, Eidetic, Field and 'We'.
- In *Education* : Comenius, Rousseau's school, Pestalozzi's school, Fichte's school, Herbart's school, Froebble's Kindergarten, Mann's school, Manual training, Platoon school, Montessori school and Basic.
- In *Economics* : War economics, Co-operative, Socialism, Syndicalism, Communism and Technocracy.

At the notational level the Systems are worked out by Chronological Device. The time when a school of thought, firmly establishes itself or when it is initiated by some one, is taken as the time that the system has come into being. This can be made clear by an example. In the field of Psychology you might have heard the name of Sigmund Freud. He is the founder of Psychoanalysis, a school of thought in Psychology. His theory was established in the 1890's and that date is taken to coin the number for the System, Psychoanalytic, i.e., SM9 where

S = Psychology

M = 1800

M9 = 1890's

The Systems so derived are also treated as Basic Classes and the Facet Formula applicable to the Main Class is also applicable to the Systems but with one exception. In a Main Class the Personality Facet does not precede with the connecting symbol comma but in case of systems the Personality Facet should precede with a comma. If you use the [P] without the comma it becomes one more Basic Class of System. This can be illustrated by taking again few examples from the Psychology Class.

Study of emotion according to Gestalt Psychology.

The basic class, the System of Gestalt Psychology to be taken first and thereafter the Facet Formula given to the Main Class Psychology is to be applied and hence :

SN, [P] : [E] [2P]

Absent Emotion

52

The number is SN:52

Let us take another title -

Study of emotion of adults according to Gestalt Psychology :

SN,[P] : [E] [2P]

Adolescent Emotion

2

52

The number is SN,2:52

Let us say that you omit the connecting symbol comma after the System Facet the number will be SN2:4

If you check to be schedules SN2 stands for Eidetic, another school of thought in Psychology which came into being in the 1920's because N2 is 1920s. That is the reason when you have to pick a number from [P] in case of a System, a comma should precede, otherwise it becomes another school of thought or another System. Below are worked out few examples based on Systems.

- 1) *Interpretation of dreams of children according to Psychoanalysis.*
- 2) *Study of emotion of adolescent boys according to Behaviouristic Psychology*
- 3) *Treatment of asthma by Ayurvedic medicine*
- 4) *Homeopathic cure for skin diseases*
- 5) *Teaching deaf children under Basic Education System*
- 6) *Cooperative marketing*
- 7) *Cooperative marketing of rice*
- 8) *Teaching method of primary school children by Montessori school method*
- 9) *Naturopathy is the answer to get rid of your excess fat.*
- 10) *Direct taxation in Communism*

Solution to the problems :

- 1) *Interpretation of dreams of children according to Psychoanalysis*

The Main Class is Psychology

If the subject is about dreams only, the number will be S:811 and dreams of children will be S15:811 (here children are taken as pre-adolescents). In the present title the study is from the point of view of Psychoanalysis and in such cases under Colon the Amplified Basic Class is to be taken first, i.e., Psychoanalysis : SM9

The Facet Formula for SM9

SM9	[P]	:	[E]	[2P]
	Children		Dreams	
	15		811	

Therefore the number is SM9,15:811

- 2) *Study of emotion of adolescent boys according to Behaviouristic Psychology*

Amplified Basic Class = Behaviouristic Psychology = SN1

Facet Formula SN1, [P]	:	[E]	[2P]
	Adolescent boys		Emotion
	21		52

Therefore the number will be SN1,21:52

Treatment of asthma by Ayurvedic medicine

Ayurvedic medicine = LB

Facet Formula	LB,	[P]	:	[E]	[2P]	:	[2E]	[3P]
		Bronchi		Disease	Caused by		Treatment	
					complicated			
					functioning			
		44		4	53		6	

Therefore the number will be LB,44:453:6

4) **Homoeopathic cure for skin diseases**

Homocopathy medicine = LL

Facet Formula	LL,	[P]	:	[E]	[2P]	:	[2E]	[3P]
		Skin		Disease	Cure (Treatment)			
		87		4	6			

Therefore the number is LL,87:4:6

5) **Teaching of deaf children under Basic Education System**

Basic Education System = TN3

Facet Formula	TN3,	[P]	:	[E]	[2P]
		Deaf Children		Teaching	
		67-1		3	

Deaf children is coined by the superimposition (SID) method.

The number is TN3,67-1:3

6) **Cooperative marketing**

Cooperatives = XM

Facet Formula	= XM,	[P]	:	[E]	[2P]
		Absent		Marketing	
				51	

The number is XM:51

In this case we are not concerned with the Personality facet as it is absent and hence there is no necessity of a connecting symbol.

7) **Cooperative marketing of rice**

Cooperative = XM

Facet Formula	XM,	[P]	:	[E]	[2P]
		Rice		Marketing	
		8(J381)		51	

In this case to coin the number for rice it should be first treated as agricultural economics for which the number is X8(J), and rice number is X8(J381) and the [P] will be 8(J381). Therefore the number will be

XM,8(J381):51

8) *Teaching methods of primary school children by Montessori school method*

Montessori School = TN1

Facet Formula TN1 ,[P] : [E] [2P]
 Primary Teaching
 School Method
 15 3

Therefore the number is TN1,15:3

9) *Naturopathy is the answer to get rid of excess fat*

Naturopathy = LM

Facet Formula = LM, [P] : [E] [2P] : [2E] [3P]

In this case there are no clues to find out the appropriate facets, but if you check under diseases there is one number for obesity. Obesity means abnormally fat and the cause is given as follows :

[P]	:	[E]		[2P]	:	[2E]	[3P]
Tissue of the body		Disease		Nutrition		Cure of Treatment	
12		4		6		6	

(There is a print mistake in the Schedules against Obesity it should be L12:46 and not as printed)

Hence the number will be LM,12:46:6

10) *Direct taxation in Communism*

Communism = XN

Facet Formula XN , [P] : [E] [2P]
 Tax Absent
 62

Therefore the number is XN,62

3.3.2 SPECIALS

In few subjects there are specialisation and this calls for separate treatment of the subject. In CC they are called Specials and they can be seen in the following subjects: (1) Physics (2) Chemistry (3) Biology (4) Agriculture (5) Medicine and (6) Economics.

They are arranged last in a subject provided in that subject there are no Systems. The sequence of arrangement among the Specials themselves is based on the Principle of Evolution. In few cases they are also represented by alphabetical order but that is only accidental.

The same Rules of System are also applicable to Specials. At the notational level they are represented by 9 and an alphabet. E.g., L9C stands for Child Medicine

Few examples are worked out below to illustrate the Specials.

- 1) *A text book of pediatrics*
- 2) *Surgery of Tonsils of children*
- 3) *Wages in public enterprise*
- 4) *Wages in Road Transport Public Utility Service*

- 5) *Treatment of asthma in old age*
- 6) *Strike in small scale paper industry*
- 7) *Biochemical analysis of carbohydrates*
- 8) *Biology of old age*
- 9) *Whooping cough in children*
- 10) *Management of banks in the private sector*

Solutions to the problems :

1) *A text book of pediatrics*

Pediatrics is a branch of medicine dealing with the development and care of infants and children. In CC this branch of medicine is treated as a Special and named as child medicine.

The number given is L9C. It is coextensive with the title.

2) *Surgery of tonsils of children*

CC recommends to classify such books under Child medicine and hence Amplified Basic Class is L9C

Facet Formula	L9C,	[P]	:	[E]	[2P]	:	[2E]	[3P]
	Tonsil			Disease			Surgery	
	219			4			7	

Therefore the number is L9C,219:4:7

3) *Wages in public enterprise*

The Main Class is Economics. CC has treated Public Enterprise as a Special and the Amplified Basic Class for Public Enterprise is X9W.

Facet Formula	X9W,	[P]	:	[E]	[2P]
	Absent			Wages	
				93	

Therefore the number is X9W:93.

As [P] is absent the connecting symbol comma has no significance.

4) *Wages in Road Transport Public Utility Services*

Here Public Utility is treated as a Special in the Main Class Economics

Public Utility = X9V

Facet Formula	X9V,	[P]	:	[E]	[2P]
	Road			Wages	
	transport				
	411			93	

Therefore the number is X9V,411:93

5) *Treatment of asthma in old age*

Main Class = Medicine. Old age is treated as a Special = L9E

Facet Formula	L9E,	[P]	:	[E]	[2P]	:	[2E]	[3P]
		Bronchi		Disease	Complicated		Treatment	
					functioning			
		44		4	53		6	

Therefore the number is L9E,44:453:6

6) *Strike in small scale paper industry*

Small scale industry is treated as a Special = X9B

Facet Formula	X9B,	[P]	:	[E]	[2P]
		Paper		Strike	
		Industry			
		8(M13)		979D	

Therefore the number is X9B,8(M13) : 979D

7) *Biochemical analysis of carbohydrates*

The subject is Biochemistry and CC has treated it as a Special under the Main Class Chemistry. E9G is Biochemistry

Facet Formula	E9G,	[P]	:	[E]	[2P]
		Carbohydrate		Analysis	
		68		3	

Therefore the number is E9G,68:3

8) *Biology of Old Age*

The Main Class is Biology and Old Age is treated as a Special and the number is G9E

9) *Whooping Cough in Children*

Child Medicine = L9C

Facet Formula	L9C,	[P]	:	[E]	[2P]	:	[2E]	[3P]
		Respiratory		Disease	Bacteria		Absent	
		system						
		4		4	24			

Number for whooping cough is L9C:4:4242. The last 2 is the second disease caused by bacteria.

Therefore the number is L9C, 4:4242

10) *Management of banks in the private sector*

Private enterprise is treated as a Special and the number is X9S

Facet Formula	X9S,	[P]	:	[E]	[2P]
		Banks		Management	
		62		8	

Therefore the number is X9S,62:8

- g) *Homoeopathic medicine for nervous disorders*
- h) *Communism and public utility services*
- i) *Answers to droughts in India - dry farming*
- j) *Ayurvedic medicine for jaundice*

Note: i) Write your answer in the space given below.
ii) Check your answer with the model answer given at the end of this unit.

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3.4 SUMMING UP

In this unit we discussed 'Devices' and 'Systems and Specials'. Colon Classification uses various types of Devices in sharpening the isolates. The important Devices used in CC6 are Chronological Device (CD), Geographical Device (GD), Subject Device (SD), Super-imposition Device (SID), Mnemonic Device (MD) and Alphabetical Device (AD).

Another aspect dealt in this unit is use of 'Systems and Specials'. A number of examples are provided to illustrate these two aspects in class number building.

3.5 ANSWERS TO SELF CHECK EXERCISES

- 1. a) V1'N45
- b) V56'N3
- c) V73,4'M09←-L89
- d) X8(Q451).44
- e) Z(Q7).2
- f) X8(Q781):51.677
- g) Z44,7,15

- h) Z44,94,3
 - i) O111,2J64,51
 - j) NA44,C
 - k) 2:51N3
 - l) Y15-31
 - m) Y12-33:411
 - n) L17-87:722
2. a) SM,1:526
- b) XM,8(J94):8.4435
 - c) LM,9E,283:46:6
 - d) SM9,2:7
 - e) X9W:9581
 - f) XM,512:952
 - g) LL,7:4:6
 - h) XN,9V
 - i) J9D.44
 - j) LB,291:453:6

3.6 ASSIGNMENT

Classify the following titles according to CC6 :

- a) *Wages in building industry*
- b) *German philosophy of 18th century*
- c) *Administration of agricultural libraries*
- d) *Essentials of international relations*
- e) *Wardha system of education for adults in India*
- f) *Introduction to the theory of relativity*
- g) *Foundations of experimental embryology*
- h) *Labour problem in private sector road transport companies*
- i) *Need for proportional representation in Indian democracy*
- j) *Manual training to illiterate females*
- k) *Homeopathic treatment for amoebic dysentery*
- l) *Christian marriage laws*
- m) *Prevention of measles in children through vaccination*
- n) *Basic education of students of rural community*

3.7 GLOSSARY

Chronological Device (CG) : The further division of a class by terms expressing date or time.

Enumerations Device (ED) : Device of forming the classes or the isolates in a facet or the array isolates in an array by directly enumerating them.

Geographical Device (GD) : Use of geographical area number (Space isolate number) from the schedule to sharpen an isolate or form a new isolate.

Subject Device (SD) : Device used to form or sharpen a facet by adding to it another class number from elsewhere in the schedules. The (SD) number is enclosed in circular brackets.

BRAOU

Unit-4 : COMMON ISOLATES

Contents

- 4.0 Aims and Objectives
- 4.1 Introduction
- 4.2 Common Isolates: Need and Types
- 4.3 Anteriorising Common Isolates (ACI)
 - 4.3.1 ACI applicable before Space Facet
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 - 4.4.1 Energy Common Isolates
 - 4.4.2 Personality Common Isolates
- 4.5 Summing Up
- 4.6 Answers to Self Check Exercises
- 4.7 Assignments
- 4.8 Glossary

4.0 AIMS AND OBJECTIVES

In this unit we will discuss about the concept of Common Isolates and their application in classifying the documents according to CC6.

By the end of this unit you will be in a position to

- explain what is a Common Isolate and its types; and
- work out examples involving Common Isolates according to CC6.

4.1 INTRODUCTION

We have tried to classify simple books as per the prescribed facet formulas. We can also state that the classification done by us so far is in accordance to subject characteristics. But all the publications are not straight forward, they differ in physical makeup, in the arrangement of information, in the treatment of the subject etc. Hence a classification scheme should have the tools to differentiate them. Subjects may be presented in the form of a dictionary, in encyclopaedic form, it may be a periodical and so on. It may be theory of a subject or history of a subject, it may be in a biographical form. Statistical abstract on a subject, report literature on a subject etc. will help as if they are arranged separately. For a reference librarian distinguishing such material will be of immense use in retrieving information.

4.2 COMMON ISOLATES: NEED AND TYPES

Common isolates are not divisions of knowledge. However these can form components of several compound subjects. Since they are applicable to any main class in a scheme of classification, they are called "common isolates".

A simple example will convince you the necessity of distinguishing documents. Let us say a book *Moghal India* and another book on *Moghal India in Maps*. The first book is a narration on the history of India of a particular period and the second book gives number of maps explaining the history of the period. If a person is looking for maps of that period, he need not search several books to trace information from the cartographic point of view, if there are books classified to denote maps. This type of treatment has been recognised in all the scheme of classifications and necessary provision has been made in their schemes. Such provision is called by different names; they are called auxilliary tables, standard subdivision, common isolate, etc. In CC it is called Common Isolate.

According Ranganathan "A common isolate is an isolate idea denoted by the same isolate term and represented by the same isolate number, quite irrespective of the compound subject in which it occurs, or the basic subject with which the Compound subject goes" (*Prolegomena*: p.93).

CC has recognised two types of Common Isolates, viz., Anteriorising Common Isolates (ACI) and Posteriorising Common Isolates (PCI).

4.3 ANTERIORISING COMMON ISOLATES (ACI)

Anteriorising common isolates are those which cannot be designated on the basis of fundamental categories. These ACI are used for documents, which require to be arranged anterior to ordinary documents and the subject of concern. These documents can be called "approach material". The approach material is usually needed for preliminary perusal before the use of regular books required for continuous study. The examples include, bibliography, concordance, table, formula, atlas, encyclopaedia, syllabus and so on. However CC6 has included periodicals, conference proceedings etc. as ACI. ACI can be attached directly the host class number without any connecting symbol. ACIs can be represented by small alphabets.

The class number for a book on mathematics will be B. If you attach an Anteriorising Common Isolate to B, that number will have precedence in the arrangement of the documents on the shelves. A *bibliography on mathematics* will be Ba. The lower case a is an Anteriorising Common Isolate standing for bibliography and while arranging the documents Ba will come first and the class number B comes later in sequence. That is why they are also called 'approach material'. The purpose of showing the approach material in a library is that the reader can have a preview of the subject which he would like to study.

Anteriorising Common Isolates (ACI) are of three types:

- i) ACI applicable before Space Facet,
- ii) ACI applicable only after Space Facet, and
- iii) ACI applicable only after Time Facet.

4.3.1 ACI APPLICABLE BEFORE SPACE FACET

The ACI which are applicable before the Space Facet are enumerated on page 2.5 of CC6.

Anteriorising Common Isolate (Applicable before Space Facet)

Number	Term	Facet formula
a	Bibliography	a[T]
c	Concordance	
d	Table	
e	Formula	
f	Atlas	f[T]
k	Cyclopaedia	k[P], [P2]
m	Periodical	m[P], [P2]
n	Serial	n[P], [P2]
p	Conference proceedings	p[P], [P2]
v	History	v[S], [T]
w	Biography	
	General	w[S], [T]
	Individual	w[P]
	Autobiography	w[P], 1
	Ana.	w[P], 2
	Letters	w[P], 4
x	Works (Collection or Selection)	
	General	x[S], [T]
	Individual	x[P]
y1	Programme of instruction	
y2	Syllabus	
y3	Synopsis	
y4	Scope	
y7	Case study	same as for w
y8	Digest	

When you go through the divisions enumerated you will find that some of the ACIs have their own Facet Formula. The Facet formulas are explained in the rules section (page 1.45). For example, the Facet formula for encyclopaedia/dictionary is

k[P], [P2]

where [P] stands for geographical area of purview, which is to be obtained by Geographical Device (GD). [P2] is the epoch of origin to be obtained by Chronological Device (CD).

Below has been reproduced the tables of Common Isolate (CI) as given in CC and accordingly examples are worked out.

Based on the above table of CI few examples are worked out. One fundamental rule is to apply a CI, the class number should be worked out first.

- 1) *Buddhism - a bibliography 1976*
- 2) *A bibliography on the history of Indian freedom struggle, 1981*
- 3) *Shakespeare's Concordance*
- 4) *Mathematical tables*
- 5) *Chemical formulas*
- 6) *World Atlas, 1979.*
- 7) *An atlas of frogs.*
- 8) *Kirk & Othmer Encyclopaedia of Chemical Technology*
- 9) *Dictionary of automobile engineering*
- 10) *British Journal of Psychology, 1926.*
- 11) *Indian Journal of Economics, 1939*
- 12) *Directory of foreign trade (published annually by the Department of Commerce, started in 1956)*
- 13) *Proceedings of the Indian Mathematical Conference, 1983.*
- 14) *A short history of Sanskrit Literature*
- 15) *International bibliography on the history of religions*
- 16) *Sir C.V. Raman - a biographical sketch*
- 17) *Alfred Tennyson - his life and works*
- 18) *A collection of Telugu short stories*
- 19) *Biography of Pandit Jawaharlal Nehru (1889-1964)*
- 20) *Correspondence of Indira Gandhi (1917-1984)*

Solutions to the above problems :

- (1) *Buddhism - a bibliography, 1976.*

The first job is to work out the class number as per the facet formula of the concerned Main Class. The subject of the book is Buddhism and the class number is Q4. After deriving the subject number you have to see whether any CI is to be applied. In this case the book is a bibliography and hence the need to apply the CI. The CI for bibliography is 'a' which is to be attached to the host class and the number becomes Q4a. In the Rules there is a facet formula for bibliography-a[[T]] which means the time covered in the bibliography should be indicated. This helps to know the currency of the bibliography. In the title, the year 1976 is the date of publication and may be presumed it covers some titles published in the 1970s also. Hence the number becomes Q4aN7.

Interpretation is

- | | | |
|-------|---|--|
| Q | = | Religion |
| Q4 | = | Buddhism |
| Q4a | = | A bibliography on Buddhism |
| Q4aN7 | = | A bibliography on Buddhism brought upto 1970s. |

Note here that no connecting symbol for Time has been provided because there is no ambiguity and reduces one digit.

(2) *A bibliography on the history of Indian freedom movement, 1981.*

Main Class = History = V

Indian Freedom movement V44:51

Bibliography on Indian freedom movement V44:51a

'a' can be expanded by Time as done in the previous title. What is the date to be given? Is it 1981? No, because the publication came out in 1981 but it covers only up to 1947 (the year India became independent) and hence the date to be given is 1947. In this case exact date can be given. The number then becomes V44:51aN47.

(3) *Shakespeare's Concordance*

A Concordance is an alphabetical list of the important words used in a book or by a particular writer, with references to the passages in which they occur.

Main Class = Literature = O

Shakespeare O111, 2J64 (number worked out according to facet formula)

Shakespeare's Concordance. O111, 2J64c (CI added to the host class.

(4) *Mathematical tables :*

Main class = Mathematics = B

There is no other division of the subject involved as the subject is a broad one. You have to add only the CI tables, and hence the number will be Bd.

(5) *Chemical formulas*

Main Class = Chemistry = E

As in the previous example, there is no further division, you have to add only the CI. The number then is :

Ee

(6) *World Atlas, 1979*

Main Class = Geography = U

World Geography U.1

World Atlas U.1f

f is attached with [T] facet as in the case of bibliography. This helps us to know how latest the atlas is. The full number then will be

U.1fN7

1979 is date of publication and hence only decade is to be shown.

(7) *Atlas of the frog*

Main Class = Zoology = K

No. of frog K9325

Atlas of frog K9325f

(8) *Kirk & Othmer's Encyclopaedia of Chemical Technology, 1978.*

Main Class = Technology = F

There is no further division of the subject and hence CI for encyclopedia may be added to the host class :

Fk

There is a facet formula for k[P], [P2]. Here [P] stands for the country or region of the entity concerned and to be derived by (GD) and [P2] stands for the entity when it originated and to be derived by (CD).

In such case the number will be Fk73,N

The 1st edition was published from USA between 1949-56 and it suffices to give the century number.

(9) *Dictionary of automobile engineering*

Main Class = Engineering = D

Automobile engineering = D5133

Dictionary of automobile engineering = D5133k

(10) *British Journal of Psychology*

Main Class = Psychology = S

There is no further subdivision of the subject and hence the CI can be attached. Sm.

There is a facet formula for m[P], [P2]

As in k here also [P] is derived by (GD) and [P2] by (CD). Therefore the number is

Sm56,N26

In case of periodicals all the volumes of a set of periodicals get the same class number irrespective of which volume you are classifying. In the above case 1926 is the year when the first volume was published. The volumes are individualised by their book numbers.

(11) *Indian Journal of Economics, 1939*

Main Class = Economics = X

CI for journals m attached to the host class as there is no further division : Xm

As per facet formula for m[P], [P2] i.e., Xm44,N39

(12) *Directory of foreign trade*

(published annually by the Department of Commerce, started in 1956)

Main Class = Economics = X

Foreign trade (Export, import) = X:51

Directory (same as serial publication) X:51n

Facet formula for n[P], [P2] same as in k

Therefore the co-extensive number is

X:51n44,N56

(13) *Proceedings of the Indian Mathematical Conference* (first conference held in 1924)

Main Class = Mathematics = B

There is no further subdivision of the subject

Conference proceedings CI = p

Facet formula for p [P], [P2], same as for k if the conference is held periodically, otherwise (CD) to be worked out in the year Conference is held.

Therefore the coextensive number is

Bp44.N24

(14) *History of Sanskrit Literature*

Main Class = Literature = O

Sanskrit Literature = O15

CI for history is v = O15v

v can be fitted with [S] and [T]

Like B9v44N1

where B9 = Astronomy

B9v = History of Astronomy

B9v44 = History of Indian Astronomy

B9v44N1 = History of Indian Astronomy brought up to 1910s.

(15) *International bibliography on the history of religions*

Main Class = Religion = Q

History of religions = Qv

Bibliography on the history of religions = Qva

Here two CIs are used, two or more CIs may be attached in succession when warranted.

(16) *Sir C.V. Raman - a biographical sketch (1888-1970)*

Main Class = Physics = C

In case of biographies and some types of collected works, the class numbers are to be worked out to the least extent possible and in the above case the (MC) need not be further divided.

CI for biography is w which is to be fitted with [P] and it is to be derived by the date of birth of the biographee and to be worked by (CD). C.V. Raman was born in the year 1888 and the class number is CwM88.

(17) *Alfred Tennyson - his life and works (1809-1892)*

Main Class = Literature = O

Tennyson was a English poet and the number to be worked out first according to the Facet formula:

O111,IM09

The common isolate w is to be attached to the host class :

O111,IM09w

In case of Literature Class after the author is derived by (CD) the CI need not be sharpened again.

- (18) *A collection of Telugu short stories*
(Youngest author born in 1949)

Main Class = Literature = O

Telugu short stories = O35,3N4

Collection of Telugu short stories = O35,3N4x

(In case of collection the date of birth of youngest author to be worked out to two digits only).

- (19) *Biography of Pandit Jawaharlal Nehru (1889-1964)*

Main Class = History = V

Nearest subdivision V44,21 Prime Minister of India

In case of History and Mysticism Classes the CI for biography is to be replaced by case studies y7.
Hence the class number will be

V44,21y7M89

- (20) *Correspondence of Indira Gandhi (1917-1984)*

The letters and correspondence of a person are to be treated as part of biography of the person and classified accordingly. The class number will be on the lines of example 19 with the addition of the notation for letters. The class number is

V44,21y7N17,4

The last 4 distinguishes the biographical work and reveals that it is based on the letters or corresponds of a person. There are two more types of Anteriorising Common Isolates, those which are attached after space and after time facets.

Self Check Exercise-1

Construct Class Numbers, for the following titles :

- a) *A bibliography on wheat (covers upto 1970s)*
- b) *Dictionary of physics*
- c) *Encyclopaedia of Britannica (started in Gt. Britain in 1769)*
- d) *Indian Journal of Chemistry (started in 1963)*
- e) *Proceedings of Indian Science Congress (Waltair:1975)*
- f) *History of Mathematics in India (brought upto 1990)*
- g) *Autobiography of Sir C.V. Raman (born in 1888)*
- h) *Letters of Pandit Nehru (born in 1889)*
- i) *Shri Aurbindoo : a biography*
- j) *Ranganathan : a multifaceted personality (born in 1892)*

- Note: i) Write your answer in the space given below.
 ii) Check your answer with the answers given at the end of this unit.

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4.3.2 ACI APPLICABLE ONLY AFTER SPACE FACET

These ACIs are applicable only after Space Facet in a class number. There are two such divisions given on page 2.6 of CC6.

Anteriorising Common Isolate (Applicable only after Space Facet)

Number	Term	Facet formula
r	Administration report	
s	Statistics (if periodical)	s{t}

There is a provision to attach Time facet directly with the ACI's Statistics (if periodical).

The use of the CI r,s and t should be clearly understood. r is for reports of a permanent body and when their reports are brought out regularly, mainly administrative reports, r is to be used.

Examples :

(1) *Administrative report of the Cochin Port Trust for the year 1971-72.*

- Main Class = Economics = X
- Port = X428
- Cochin Port = X428.4412.C

(C stands for Cochin, this will be explained when we are going to discuss about the second level of Space

CI can be attached now = X428.4412.Cr

This can be still individualised by attaching [T] Facet in which case the number becomes X428.4412.CrN72. In case of administrative reports the Time facet to be given is the first year of the report and the individual years can be brought under book number as done in the case of periodical publications.

(2) *Administrative Report on Public Libraries in Andhra Pradesh* 22.4416r

(3) *Population of India : 1981 Census* Y:5.44sN81

4.3.3 ACI APPLICABLE ONLY AFTER TIME FACET

These ACIs are applied only after Time facet and no where else. These are given on page 2.6 of CC6 and consist of

Anteriorising Common Isolate (Applicable only after Time Facet)

s	Statistics (if stray)	v	Source material
		v5	Literature
t	Commission report	v6	Tradition
t4	Survey	v7	Archaeology etc., (as in V History)
t5	Plan	v8	Archive (as in V History)
t6	Ideal		

t is for the report submitted by a committee or commission which is appointed for a purpose like a Pay Commission Report. In the same way s for statistics is to be applied with caution. s after Time stands for stray statistics, e.g. if we make a statistical analysis of the TV users in the City of Hyderabad, it is a stray statistics and to be fitted with s after Time. Instead the statistical data supplied at regular intervals by the Andhra Pradesh Bureau of Economics and Statistics, is to be fitted with s after Space. Some examples based on the above table are worked out :

Examples :

- (1) *A survey of social conditions in Bombay, 1969.*
- (2) *Indian Labour Bureau : Pocket book of labour statistics, 1976.*
- (3) *Report on the Public Library System in Great Britain, 1949.*
- (4) *Annual statistics of rice crop in Andhra Pradesh, 1981.*
- (5) *A survey of illiterates in India, 1979.*
- (6) *Reserve Bank of India: Report on currency and banking, 1981.*
- (7) *Textile labour enquiry report.*
- (8) *Statistical data on suicide in India, 1977.*

Solution to the above problems :

- (1) *A survey of social conditions in Bombay, 1969.*

Main class = Sociology = Y

Social conditions is a broad subject and hence further subdivision does not arise. Survey number is to be given from Ci. Y.4431'N7t4

Interpretation is

- Y.4431 = Social condition in Bombay.
Y.4431N7 = Social condition in Bombay in 1970s
Y:4431N7t4 = A survey of social condition in Bombay in 1970s.

(2) *Indian Labour Bureau : Pocket book of labour statistics, 1976.*

- Main Class = Economics = X
Labour = X:9
Indian labour = X:9.44

The publication is a regular feature of the Bureau and hence CI to be applied after Space:

X:9.44sN7

(3) *Report on the Public Library system in Great Britain, 1949.*

- Main Class = Library Science = 2
Public Libraries = 22

This is a Commission Report and the CI to be applied after Time and the CI is *t*. The class number then will be

22.56N5t

(4) *Annual Statistics of rice crop in Andhra Pradesh, 1981.*

- Main Class = Agriculture = J
Rice Crop = J381

CI for Annual statistics is to be attached after Space and hence the number will be

J381.4416sN81

(5) *A survey of illiterates in India, 1979*

- Main Class = Education = T
Illiterates = T38
A survey done in 1979 = T38.44N79t4

(6) *Reserve Bank of India : Report on Currency and banking, 1981*

- Main Class = Economics = X
Currency and banking = X61

In such cases give the broader number; it is not necessary to represent both currency and banking. It will be looked after in the cataloguing of the document. Reserve Bank's such reports are regular in nature and hence the CI to be used is *r*.

X61.44N81

(7) *Textile labour enquiry report, 1953.*

Main Class = Economics = X

Textile labour = X8(M7):9

This is a commission report and hence the CI is t.

The number then will be

X8(M7):9.44'N53t

(8) *A statistical data on suicide in India, 1977*

Main Class = Sociology = Y

Suicide = Y:45111

The number derived for suicide may require some explanation. Under Sociology Y:45 is Crime and under 45 there is a direction that further division of 45 is as given under Law. If you check under Z[P2], 5111 is suicide and you have to take only 111, the division of Crime. Statistical data in this is a stray compilation and the CI that is to be applied is s after Time facet and hence the number will be

Y:45111.44'N7s

Self Check Exercise - 2

Construct Class Numbers for the following titles :

- (a) *Report of the Education Commission (India), 1966*
- (b) *Higher Education in India : Fourth Five Year Plan (1969-73)*
- (c) *Annual Report on Coal miners Provident Fund, 1972-73*
- (d) *Survey on Medical libraries in India, 1989.*
- (e) *Source literature on Earth quakes in India (upto 1993)*

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this unit.

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4.4 POSTERIORISING COMMON ISOLATES (PCI)

So far we have discussed about Anteriorising Common Isolates (ACI). The (ACI)s are attached to a class number without any connecting symbol. There are some more Common Isolates which are attached to a class number with a connecting symbol. They are called Posteriorising Common Isolates (PCI). (PCI)s are of three types, Personality Common Isolates, Energy Common Isolates and Matter Common Isolates. In the 6th edition of CC only Personality and Energy Common Isolates are discussed.

By adding the PCI to any class, the extension of the class decreases. The resulting class is arranged posterior to the original class, i.e., it comes after the original class.

First the host class number is to be worked out on the basis of the Facet formula and then the PCI number is to be added. There are two types of PCI: i) Energy Common Isolates and ii) Personality Common Isolates. (See page 2.6 of CC6).

4.4.1 ENERGY COMMON ISOLATES

Posteriorising Common Isolate : Energy Common Isolate

<i>b1</i>	Calculating	<i>f3</i>	Experiment
<i>b2</i>	Designing	<i>f4</i>	Discussion
<i>b6</i>	Measuring		
		<i>g</i>	Criticism
<i>c1</i>	Weighing	<i>p</i>	Drafting
		<i>r</i>	Reporting
<i>f</i>	Investigation	<i>u</i>	Surveying
<i>f2</i>	Observation		

The Energy Common Isolate should be preceded by a colon (:), while attaching to a host class number.

Examples :

- (1) *Observing the lunar eclipse* B92:57:f2

where

B2 = Astronomy

B22 = Moon

B92:57 = Eclipse of the moon

Observing is Energy Common Isolate and hence can be applied with the connecting symbol colon

B92:57:f2

- (2) *Experiments in Physics*

The subject is Physics = C

Experiments is Energy Common Isolate i.e., C:f3

- (3) *Critical study of Shakespeare's plays*

Class number for Shakespeare's plays = O111,2J64

Critical study is Energy Common Isolate

i.e., O111,2J64:g

(PCI) 'g' can be further sharpened by Subject Device

(4) *Treatment of love in Shakespeare's plays.*

O111,2J64:g(S:55)

S:55 is love in Psychology Class

(5) *Treatment of death in Tagore's works*

O157,1M61:g(L:5191)

First work out the number for Tagore and apply the PCI and sharpen it by Subject Device.
L:5191 is death in the Main Class Medicine

To interpret the number

O157 = Bengali literature

O157,1 = Bengali poetry

O157,1M61 = Bengali poet born in the year 1861 (Rabindranath Tagore)

O157,1M61:g = Critical study of Tagore's works

O157,1M61:g(L:5191) = Description of death in Tagore's works.

4.4.2 PERSONALITY COMMON ISOLATES

The Personality Common Isolate should be added after Space isolate and a comma should precede it. The Face Formula and the Personality Common Isolates are given below :

Posteriorising Common Isolate: Personality Common Isolate

(CI), [P], [P2] : [E]

b Profession

f2 Observational

f3 Experimenting

d Institution

f4 Discussional

f7 Yogic (Asrama)

e Educational (in which the

subject, represented by

g Learned society

the host class, is taught)

h Industrial body

e2 Lower

k Commercial body

e4 Higher

w Administrative department of
Government

f Investigating

The isolate in [P] is to be obtained by Alphabetical Device (AD) in case of localised body and in case of non-localised body the isolate is to be got by Chronological Device (CD) and it should be preceded by 9.

PCI may be fitted, when warranted, with [P2] : [E] as in the Main Class V History.

Examples :

(1) *Irrigation Research Institute Roorke — Annual Report, 1983.*

To achieve coextensive numbers, first you have to work out the number for the Irrigation Research Institute. Personality Posteriorising Common Isolate has provided some guidelines in this regard. The number for irrigation in this case will go under the Main Class Engineering.

D2.44,f3,RrN83

PCI is to be added generally after Space facet and hence the interpretation of the number is

- D2 = Irrigation
- D2.44 = Irrigation in India
- D2.44,f3 = Irrigation experimenting institute (PCI fitted with a comma)
- D2.44,f3,R = Irrigation Research Experimenting Institute, Roorke
(R by Alphabetical Device and preceded by a comma)
- D2.44,f3,Rr = r for administrative report from ACI
- D2.44,f3,RrN83 = Roorke Irrigation Research Institute report for the year 1983.

(2) *Powers and functions of Osmania University Vice-Chancellor*

T4.44,e4,O,12:3

Before giving the interpretation of the number the facet formula given for PCI is explained below :

PCI = Personality Common isolate

A (PCI) is generally to be added after Space Isolate

(PCI),	[P]	[P2]	:	[E]	[2P]
to be added	is taken from	from the Main			
by	the Main Class	Class			
(AD) or (CD)	V History	V History			

Interpretation of the number :

- T4 = University education
- T4.44 = University education in India
- T4.44,e4 = Higher educational institution in India. e4 is PCI.
- T4.44,e4,O = Higher educational institution starting with the name O (for Osmania)
O is derived from (AD) as it is a localised Institution—
- T4.44,e4,O,12 = 12 is from Main Class V (History) [P2] is governor which here is
Vice-Chancellor
- T4.44,e4,O,12:3 = 3 is functions [E] [2P] from Main Class V

(3) *Election method of the president of the Indian Philosophical Society*

R.44,g,9N21,2:91 Interpretation of the number :

- R = Philosophy
- R.44 = Philosophy in India
- R.44,g = Philosophical learned society, equal to Philosophical Society

- R.44,g,9N21 = Philosophical Society established in the year 1921.
This is a non-localised body and hence derived by (CD),
the year Society was established.
- R.44,g,9N21,2 = The last 2 is from the History Class [P2] for the chief executive,
in this case President of Indian Philosophical Association.
- R.44,g,9N21,2:91 = 91 is election method from [E] [2P] of the Main Class History.

(4) *Annual report of the Indian Psychological Society, 1984.*

S.44,g,9N59rN84

The interpretation is

- S = Psychology
- S.44 = Psychology in India
- S.44,g = Indian Psychological Society
- S.44,g,9N59 = Indian Psychological Society established in 1959
(this being a non-localised body it is derived by (CD))
- S.44,g,9N59r = Report of the Indian Psychological Society
- S.44,g,9N59rN84 = Report for the year 1984

(5) *Report of the Andhra Pradesh Social Welfare Department for the year ending 1983.*

YX.44,w,ArN83

Interpretation is

- YX = Social work
- YX.44,w = Social Welfare Department
- YX.44,w,A = Social Welfare Department, Andhra Pradesh
(A for Andhra Pradesh by (AD))
- YX.44,w,Ar = r for report
- YX.44,w,ArN83 = for the year 1983.

Self Check Exercise - 3

Construct class numbers for the following titles :

- a) *Study of Mukraj Anand's novels (born 1905)*
- b) *Indian Institute of Experimental medicine - Annual report for the year 1981*
- c) *Powers of the manager of A.P. State Road Transport Corporation*
- d) *Experiments in the design of television sets in India*
- e) *Experimenting institutions in the design of TV sets in India*
- f) *Research in cultivation of grapes*
- g) *Report of the Calcutta University Commission, 1917*
- h) *Observation of the stars*
- i) *Annual report of Andhra Pradesh Electricity Board, 1979.*
- j) *History of Indian Library Association (ILA founded in 1933)*

3. a) O111,3N05:g
b) L44,f3rN81
c) X411,4416,w,A,2:3
d) D65,45:4.44:f3
e) D65,45:4.44,f3
f) J374:f3
g) T4.44,e4,C'N17t
h) B96:f2
i) D66.4416,w,ArN79
j) 2.44,g,9N33v

4.7 ASSIGNMENT

Classify the following titles as per CC6 :

- (a) *Hundred years of astronomy 1936*
(b) *Indian Ephemeris (started in the year 1800)*
(c) *Life of Madame Curie (1867)*
(d) *Dictionary of organic compounds*
(e) *A short history of Japanese art. 1976*
(f) *A bibliography of English drama, 1963*
(g) *Vedic Concordance*
(h) *Indian Minerals year book (started in the year 1924)*
(i) *Railway Engineering Journal, published by the Institute of Mechanical Engineers, London from 1922.*
(j) *A short history of Hindu philosophy, 1956.*
(k) *World forestry statistics, 1958.*
(l) *Annual report of the Andhra Pradesh Police Department, 1983.*
(m) *A survey on tribal education in Madhya Pradesh, 1978.*
(n) *Some statistical data on burglary in Madras in the year, 1981.*
(o) *Indian Planning Commission; Regional transport surveys, 1968.*
(p) *Andhra Pradesh Pay Commission Report, 1977.*
(q) *Optical Society of America - Journal, Vol. 1, 1917.*
(r) *Life and works of Rabindranath Tagore (1861-1941)*
(s) *A history of Buddhism in Nepal 1978.*
(t) *A statistical report on Indian tea export, 1982.*

4.8 GLOSSARY

Anteriorising Common Isolate : A Common Isolate attachable to a host class number directly without a connecting symbol and the resulting class has precedence in arrangement over the host class.

Posteriorising Common Isolate : A Common Isolate which needs a connecting symbol for attachment to a host class number and the resulting class is arranged posterior to the original class.

Unit-5 : PHASE RELATION

Contents

- 5.0 Aims and Objectives
- 5.1 Introduction
- 5.2 Types of Phase relation
 - 5.2.1 Phase relation
 - 5.2.2 Intra-facet relation
 - 5.2.3 Intra-array relation
- 5.3 Summing Up
- 5.4 Answers to Self Check Exercises
- 5.5 Assignments
- 5.6 Glossary

5.0 AIMS AND OBJECTIVES

So far we have dealt with simple and compound classes. In this unit we will deal with complex classes. The aim of this unit is to explain you how to classify documents involving Phase relation.

By the end of this unit you will be in a position to

- explain what is phase relation;
- enumerate different kinds of phase relation; and
- construct class numbers for the documents involving phase relation.

5.1 INTRODUCTION

A scheme of classification must have all the tools to meet the development of knowledge. Universe of knowledge is multidimensional and to meet its challenge both at the Idea Plane and the Notational Plane, a scheme of classification must provide proper gadgets. In Unit 1 of Library Classification Theory you have learnt the mode of the formation of different subjects, one of which is loose assemblage. Subjects which are formed by loose assemblage are accomodated Phase Relation. Phase relation combines two different aspects of subjects, they may be from two different Main Classes, or two different aspects of a facet in a Main Class or two different Isolates in an array.

5.2 TYPES OF PHASE RELATION

CC has recognised three types of Phase relations and they are called (1) Phase relation (2) Intra-facet relation and (3) Intra-array relation. Under each type of phase there are again five types of relations, viz :

General
Bias
Comparison
Difference
Influencing

To connect two different phases a connecting symbol '0' (zero) and a Roman lower case alphabet are used. The Roman lower case alphabet distinguishes the type of relation used at the notational level. The following table gives the types of relations and connecting alphabet that is to be used.

Name of Relation	Phase	Intra-facet	Intra-array
General	a	j	t
Bias	b	k	u
Comparison	c	m	v
Difference	d	n	w
Influencing	g	r	y

Examples based on the above types of relations are worked out below :

5.2.1 PHASE RELATION

To understand the concept of phase relation and the use of the appropriate connecting symbol below are given few simple examples.

The relation between *Philosophy and religion*.

In this subject there are two Main Classes and the relation is general in nature and hence the number is R0aQ.

As per CC "General Relation denotes a more or less all-comprehensive relation- that is, not merely any one of the other relations listed in the Schedule". The class numbers formed by the combination of two phases is called a complex class. In this complex class the two phases are called First Phase and Second Phase. The First Phase is primary subject of exposition and the Second Phase which affects the exposition of the First Phase.

In case of General relation, Comparison and Difference both the Phases have the same value and hence in such cases the Rule is "whose Class Number is of smaller ordinal value than that of the other, is to be used as the First Phase". Hence in the example given the class number should be Q0aR, because Q has smaller ordinal value.

In the same way *Difference between philosophy and religion* and *Comparison between philosophy and religion*, the numbers will be Q0dK and Q0cR respectively. But in case of Bias and Influencing

phases the Phase which biases and influences is treated as Second Phase. This is made clear by two examples. In a subject *Mathematics for Engineers*, Engineers is the Biasing Phase and hence is the Second Phase and the number will be B0bD. *Influence of literature on religion* will be Q0gO. In this case literature is the influencing phase and hence to be treated as the Second Phase.

Few worked out examples will give a better picture of the subject on Phase Relations.

- (1) *Personality and religion*
- (2) *Relation between reasoning and ethics*
- (3) *Gestalt Psychology for teachers*
- (4) *A comparative study of Sufism and Hindu Philosophy*
- (5) *A comparative study children's emotion and juvenile delinquency*
- (6) *Influence of Bible on English literature*
- (7) *Difference between Aesthetics and Fine Arts*
- (8) *Influence of Greek Civilization on Christianity*
- (9) *Anatomy for art students*
- (10) *Ethics for politicians.*

In all the above examples there are two Main Classes and the study is interdisciplinary. One subject is biased or influenced by another subject, or there may be some other type of relation between two Main Classes. Such relations fall under the category of Phase relation. The solutions to the problems will help you to understand the full implications.

(1) *Personality and religion :*

The subject is a discussion on the general relation between religion and one's own personality. Two Main Classes are involved in the subject

First Phase	Type of relation	Second Phase
Personality (MC) Psychology S:7	General 0a	Religion Q
i.e., S:70aQ		

When the subjects are treated alike, the Rule says to arrange the number in their ordinal value and hence the number should be Q0aS:7.

(2) *Relation between reasoning and ethics :*

As in the previous example the type of relation is general and there are two Main Classes, Psychology and Philosophy and the construction of the number is :

First Phase	Type of relation	Second Phase
Reasoning S :r44	General 0a	Ethics R4

In this case also the number is to be reversed to keep them in their ordinal value and hence the number will be R40aS:44.

(3) *Gestalt Psychology for teachers :*

This book is written with a purpose. The subject of the book is Gestalt psychology but is aimed for teachers or towards educationists. In such cases we say the subject is biased towards somebody and in this case it is teachers.

First Phase Gestalt Psychology SN	Type of relation Bias Ob	Second Phase Teacher T
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i.e., SNObT

There is also provision to coin the number for teacher which we will discuss in a later unit. For the present T (Education) serves the purpose.

(4) *A Comparative study of Sufism and Hindu Philosophy :*

A comparative discussion on Sufism and Hindu Philosophy.

There are two Main Classes.

First Phase Sufism Δ73	Type of relation Comparison Oc	Second Phase Hindu Philosophy R61
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i.e., Δ73OcR61

In comparative study of two subjects, they are at the same level and both can be treated under the First and Second Phase. In this case the arrangement is made according to the ordinal values of the notation.

(5) *A comparative study of children's emotion and juvenile delinquency :*

The subject is a comparative study of psychological disturbance in children and juvenile delinquency. Two Main Classes are involved, Psychology and Sociology.

First Phase Children's emotion S15:52	Type of relation Comparison Oc	Second Phase Juvenile Delinquency Y12:42
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i.e., S15:52OcY12:42

(6) *Influence of Bible on English literature :*

One has to analyse the title properly and understand the implications. Here the discussion is on English literature and Bible is influencing facet. In such cases the influencing facet to be treated as the Second Phase.

First Phase English Literature O111	Type of relation Influencing Og	Second Phase Bible Q6:21
---	---------------------------------------	--------------------------------

i.e., O111OgQ6:21

Interpretation of the number is :

- O = Literature
- O111 = English Literature
- Og = Connecting symbol for influencing phase
- Q6 = Christianity
- Q6:2 = Christian scripture
- Q6:21 = Bible (This is derived by the favoured category device and in Part 3 of CC there are worked out numbers).

(7) *Difference between Aesthetics and Fine Arts*

First Phase	Type of relation	Second Phase
Aesthetics	Difference	Fine Arts
R5	Od	N

i.e., R50dN

When we discuss difference between two subjects, they have equal status and as such it is not possible to determine which is the First and Second Phases are. In such cases the Rule is to arrange the numbers in the ordinal value of the notation. Therefore, the number will be NodR5.

(8) *Influence of Greek Civilization on Christianity*

First Phase	Type of relation	Second Phase
Christianity	Influencing	Greek Civilization
Q6	Og	Y751:1

i.e., Q60gY751:1

In this case Christianity is the main subject and Greek Civilization is only an influencing phase. and hence to be treated as second phase.

(9) *Anatomy for art students :*

The subject of the book is anatomy but it is biased towards art, hence the phases are :

First Phase	Type of relation	Second Phase
Anatomy	Bias	Art
L:3	Ob	N

i.e., L:30bN

(10) *Ethics for politicians*

This is akin to the previous example.

First Phase	Type of relation	Second Phase
R4	Ob	W

i.e., R40bW

Self Check Exercise - 1

Construct class numbers for the following titles :

- a) *Press and democracy*
- b) *International symposium on rice genetics and cytogenetics (Los Banos; 1963)*
- c) *Labour economics for social workers*
- d) *Geeta and Koran : a comparison*
- e) *Difference between wave function and wave mechanics*
- f) *Economic conditions (influenced by) & Disarmament*
- g) *Geopolitics*
- h) *Psychology for physicians*
- i) *Difference between religion and ethics*
- j) *Medical jurisdiction*

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this unit.

5.2.2 INTRA-FACET RELATION

So far the examples worked out are of Phase Relations where two different Main Classes are involved. There are possibilities of the same type of relations discussed above occurring in the same Main Class, and in the same facet. In such cases they are called Intra-Facet Relation, because the relation is between two isolates of the same facet. Examples based on Intra-Facet Relations are worked out below:

- 1) *A Comparative study of Buddhism and Jainism*
- 2) *A study of democracy and communism*
- 3) *Influence of Vedic religion on Buddhism*
- 4) *Influence of Sanskrit on Telugu language*

- 5) *The difference between Rajasthani and Moghul paintings*
- 6) *Difference between reptiles and mammals.*
- 7) *The relation between the Judiciary and the Executives in India*
- 8) *Electronics for Computer engineers*
- 9) *The relation between electrical and electronics engineering*
- 10) *Trade relation between Indian and Russia*

Solutions to the above problems :

(1) *Comparative study of Buddhism and Jainism :*

The Main Class is Religion and the two religions discussed in the title fall under the same facet [P]. Q3 is Jainism and Q4 is Buddhism. In such cases it is not necessary to repeat the Main Class Q. The connecting symbol provided for this purpose indicates that the two topics discussed in the title are taken from the same facet.

First Phase	Type of relation	Second Phase
Buddhism	Comparison	Jainism
4	0m	3

This being a comparative study both religions get same status and hence the arrangement must be in their ordinal value and as such the number will be Q30m4.

(2) *A study of Democracy and Communism*

This is comparative study and the main Class is Political Science. Both democracy and communism are from facet [P] of the Main Class Political Science and hence it is Intra facet comparative relation.

First Phase	Type of relation	Second Phase
Democracy	Comparison	Communism
6	0m	691

i.e., W60m691

(3) *Influence of Vedic Religion on Buddhism*

Main Class is Religion and both Vedic Religion and Buddhism are from facet [P], and hence Intra-facet influencing relation.

First Phase	Type of relation	Second Phase
Buddhism	Influencing	Vedic
4	0r	1

i.e., Q40r1

In this case you cannot reverse the numbers because Buddhism is the main subject of the book and hence it is the primary phase where as Vedic Religion is only an influencing phase and hence it is the second phase.

(4) *Influence of Sanskrit on Telugu language*

The Main Class is Linguistics and Sanskrit and Telugu fall under the same facet [P] of the Main Class P, therefore it is Intra-facet influencing phase.

First Phase	Type of relation	Second Phase
Telugu	Influencing	Sanskrit
35	Or	15

i.e., P35Or15

(5) *Difference between Rajasthani and Moghul Painting*

The Main Class is Fine Arts and Painting is NQ. Both Rajasthan and Moghul fall under the same facet [P] and [P2] of NQ and hence it is Intra-facet difference relation.

First Phase	Type of relation	Second Phase
Rajasthan	Difference	Moghul
4437	On	44,J

i.e., NQ4437On44,J

Please note 4437 and 44 are taken from Space Isolate. J is the state or the period when a particular style of painting came into vogue. Again the number is to be reversed as they are not in their ordinal value and hence will be NQ44,JOn4437.

(6) *Difference between reptiles and mammals*

The Main Class is Zoology and both type of animals are from the same facet [P] of K, and hence it is Intra facet difference relation.

First Phase	Type of relation	Second Phase
Reptiles	Difference	Mammals
94	On	97

i.e., K94On97

(7) *The relation between the Judiciary and the Executive in India*

The Main Class is History and the two isolates executive and judiciary are from the facet [P2] of V, and hence it is intrafacet relation.

First Phase	Type of relation	Second Phase
Judiciary	General	Executive
7	0j	2

i.e., V44,70j2

To keep in the ordinal value the number is to be reversed and hence it will be V44,20j7.

(8) *Electronics for Computer engineers*

Main Class is Engineering. Electronics and computer engineering fall under the facet [P] of the Main Class D, and hence it is intra-facet relation. Further the subject of electronics is biased towards computer engineering and hence it is a bias phase.

First Phase Electronics 65	Type of relation Bias 0k	Second Phase Computers 6,8(B)
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i.e., D650k6,8(B)

Computer engineering though of lower ordinal value cannot be taken as a first phase as it is a biasing phase.

(9) *Relation between electrical and electronic engineering*

Main Class is Engineering. Both the isolates, electrical and electronics are from the same facet and hence it is Intra-facet relation.

First Phase Electrical 66	Type of relation General 0j	Second Phase Electronic 65
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i.e., D660j65

The number is to be reversed to keep in the ordinal value, and hence the number will be D650j66

(10) *Trade relations between India and Russia*

Main Class is Economics. India and Russia are from the same facet and hence it is intra-facet relation.

First Phase India 44	Type of relation General 0j	Second Phase Russia 58
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Trade no. X:5. India and Russia are taken from Space Isolate and hence the number is X:5.440j58.

Self Check Exercise - 2

Construct class numbers for the following titles :

- Democracy and non-violence*
- Asian States and the development of international law*
- Influence of caste on profession*
- Relation between Hinduism and Buddhism*
- Physiological anatomy*
- Comparison of Constitution of India and Great Britain*
- Difference between analytical chemistry and extractive chemistry*
- Influence of environment on physiology of animals*

(6) *A general study of India's export and import duties*

Main Class is Economics. Export and import duties are from the same array and hence it is intra-array relation.

First Class Export Duty X:535	Type of relation General 0t	Second Phase Import duty X:536
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i.e., X:5350t6

(7) *Influence of Greek Philosophy on Roman Philosophy*

Main Class in Philosophy. Greek and Roman Philosophy is from the same array and hence intra-array relation.

First Phase Roman Philosophy R852	Type of relation Influencing 0y	Second Phase Greek Philosophy R851
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i.e., R8520y1

Greek philosophy is influencing facet and as such is Second Phase.

(8) *Book selection procedure in College and University Libraries*

Main Class is Library Science. College and University libraries are from the same facet and hence intra-array relation.

First Phase College Libraries 33	Type of relation General 0t	Second Phase University Libraries 36
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i.e., 2330t6:1

(9) *The difference between Sankhya and Yoga Philosophy*

Main Class is Philosophy. Sankhya and Yoga Philosophy belong to the same array and it is intra-array relation.

First Phase Sankhya R631	Type of relation Difference 0w	Second Phase Yoga R635
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i.e., R6310w5

R6 is Indian Philosophy and 31 and 35 belong to [P] facet of R6.

(10) *A study of Delhi's Summer and Winter*

Main Class is Geography. Summer and Winter are from the same array and hence it is intra-array relation.

First Phase Summer 162	Type of relation General 0t	Second Phase Winter 164
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i.e., U1620t4.481

Self Check Exercise - 3

Construct class numbers for the following titles :

- a) *Rail and road transport in East Africa*
- b) *Supply and demand in India, 1970*
- c) *Cultural fellowship of Hindus and Muslims in India*
- d) *Inter-State relations: Andhra Pradesh and Karnataka*
- e) *Therapeutics: the method of administration in pharmacotherapy*
- f) *Difference between intelligence and ability*
- g) *Influence of urban culture on rural folk*

Note: i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this unit.

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5.3 SUMMING UP

In this unit we explained you what is phase relation and various types of phase relations. There are basically three levels of phase relations : i) Phase relation (inter-subject relation), ii) Intra-facet relation, and iii) Intra-array relation. Within each level of the above relations, there are five categories: General, Bias, Comparison, Difference and Influence. The connecting symbol for a phase relation is a zero and an alphabet (Roman small) to indicate appropriate relation.

5.4 ANSWERS TO SELF CHECK EXERCISES

- 1. a) 40aW6
- b) G11:60aJ381:96p1.N63
- c) X:90bYX
- d) Q7:20cR65,6
- e) B850dCN2
- f) X0gW:19(zT)
- g) W0gU
- h) S0bL
- i) Q0dR4
- j) 1.0bZ

2. a) W60j87
b) Z10k4
c) Y410r592
d) Q20j4
e) L:20k3
f) V440m56:2
g) E:30n5
h) K:30r5

3. a) X4110t5.6.9B
b) X:7320u1.44'N7
c) Y73(Q2)0v(Q7):1.44
d) V44130t6
e) L:4:610u3
f) S:720w3
g) Y310y3:1

5.5 ASSIGNMENT

Classify the following titles by CC :

- a) *Influence of Kalidasa on Hindi Literature*
- b) *A comparative study of the emotion of deaf and blind people*
- c) *A study of goat's and cow's milk*
- d) *Influence of cinema on the emotional stability of growing children*
- e) *A comparative study of Moghul and Geothic architecture*
- f) *Engineering mathematics*
- g) *Difference between pension and provident fund*
- h) *A comparison between the building material brick and stone*
- i) *Influence of Ayurveda on allopathy*
- j) *Foreign relations between India and U.S.A.*
- k) *Difference between the functions of Rajya Sabha and Lok Sabha.*
- l) *Influence of British Law of Torts on Indian Law*
- m) *The difference between Sunnis and Shialts*
- n) *Mysticism and Indian Philosophy*
- o) *Tagore's influence on Indian freedom movement*
- p) *Dewey Decimal Classification and Colon Classification in Perspective by R.S. Parkhi*
- q) *The interaction between meditation and Naturopathy*
- r) *Difference between the teaching of children and illiterate adults*
- s) *Weather and the longevity of life of plants*
- t) *The difference between flute and claironet music*

5.6 GLOSSARY

Complex Class : The Class formed by a two-phased subject.

Phase Relation : Relation between the phases of a complex class or a complex array isolate.

BRAOU

Unit-6: EXAMPLES FROM MAIN CLASSES : GENERALIA AND LIBRARY SCIENCE; MISCELLANEOUS CLASSES

Contents

- 6.0 Aims and Objectives
- 6.1 Introduction
- 6.2 Main Classes without Schedules
- 6.3 Generalia
- 6.4 Generalia Bibliography
- 6.5 Library Science
- 6.6 Miscellaneous Classes
- 6.7 Summing up
- 6.8 Answers to Self Check Exercises
- 6.9 Assignment

6.0 AIMS AND OBJECTIVES

In this unit we will work out various examples from the main classes Generalia and Library Science.

By studying this unit you should be able to

- explain the structure of the schedules in the main classes Generalia and Library Science;
- describe the facet formula of each of these two main classes; and
- construct class numbers for the documents with subjects belonging to these two main classes.

6.1 INTRODUCTION

The units so far covered gives an outline of the scheme of Colon Classification. In few Main Classes, complete schedules are not given but only a direction is given how to derive further numbers. In some cases there are directions to use the numbers already enumerated for some other Main Class. Such schedules are called parallel schedules. In few cases the facet formulas are not completely given, but they have been mentioned in the Rules.

There are such minor details which can be explained by taking few examples from each Main Class.

6.2 MAIN CLASSES WITHOUT SCHEDULES

Ranganathan divided universe of knowledge broadly into traditional divisions, viz., Natural sciences, Humanities and Social Sciences. Each broad division then has been further divided into Main classes. The Main Classes are listed on page 2.4 of CC6. The first five main classes deal with general subjects. They are

- z Generalia
- 1 Universe of Knowledge
- 2 Library Science
- 3 Book Science
- 4 Journalism

Among the above five main classes only two main classes, Generalia and Library Science were provided with schedules and facet formula for each class for constructing the class numbers. Since there are no schedules provided for the main classes, Universe of knowledge, Book science and Journalism, the documents dealing with these subjects may be classified broadly under the class numbers assigned to the main classes.

Examples :

Title	Class Number
<i>Spiral of Scientific Method</i>	1
<i>A Manual for writers of term papers, theses and dissertations</i>	3
<i>Basic Journalism</i>	4
<i>Journalism Made Simple</i>	4
<i>Dictionary of Journalism</i>	4k
<i>Biography of William Hazlitt</i> (Journalist, born in 1800s)	4wM

Self Check Exercise - 1

Construct class numbers for the following titles :

- a) *Precision Journalism*
- b) *Science Journalism*
- c) *The life and times of SS McClure* (Journalist, born in 1915)
- d) *Bibliography on Spiral of Scientific method*
- e) *Effective writing for engineers and managers.*

Note: i) Write your answer in the space given below.
ii) Check your answer with the model answers given at the end of this unit.

worked by adding the geographical number from Space schedule: z44 where z is Generalia class and 44 is India.

The class number for *Orientalology* will be z4

z = Generalia

4 = Asia (taken from Space Isolates)

Similarly,

The class number for *Nipponology* will be z42

z = Generalia

42 = Japan (taken from [S] Isolates)

In the same way few persons cannot be classified under one Main Class, because they pervade many subjects. Persons like Mahatma Gandhi whose contribution is not restricted to one subject and hence his biographies and thoughts are classified under Generalia Class by Alphabetical Device. zG is for *Gandhiana*. Such persons may be few but there should be a provision in a scheme of classification to accommodate persons with multifarious activities.

Self Check Exercise - 2

Construct class number for the following titles :

- a) *Sinology*
- b) *Encyclopaedia of Library and Information Science*
- c) *Nehruana*
- d) *African Studies*

Note: i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this unit.

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6.3 GENERALIA BIBLIOGRAPHY

In case of Generalia Class only general bibliography has been provided with a schedule with its own facet formula.

a [P], [P2] [P3], [P4]

The facets are always explained in the Rule Section of CC. Usually the isolates of a facet are enumerated and if detail enumeration is not made, directions are given how to sharpen an isolate. In case of the above facet formula given in page numbers 1.62 and 1.63 explanations are given about the Rules

governing the facet formula and, if any of the facet is not enumerated, it is also given in the Rule section. In case of general bibliography [P] and [P2] are enumerated in the Schedule. [P] stands for type of bibliographies and [P2] is the issuing or publishing body. [P3] is area or country and to be derived by (GD). It may be derived by (AD) if the issuing body is a publisher or bookseller. This factor depends on the facet [P2]. [P4] is period or origin and to be derived by (CD). Based on the above explanation some examples are worked out below :

(1) *A bibliography of 19th century French books*

a43-3122,11,M interpretation is

- a = general bibliography
- 43 = printed books from [P]
- 3 = by language from [P]
- 122 = French from Language schedules as directed under 3 of [P]
- 1 = list of publications in a geographical area from [P2]
- 1 = World from Space Isolate as stated in [P3]
- M = 19th Century as stated in [P4]

French books is derived by the superimposition method. As the area is not stated in the title, it is assumed that the bibliography covers books published throughout the world.

(2) *Bibliography of doctoral dissertations accepted by Indian Universities 1857-1970*

a494,144,N7←M57 where

- a = bibliography
- 494 = Theses from [P]
- 1 = List of publications in a geographical area from [P2]
- 44 = India from [P3]
- N7←M57 = Period from [P4]

(3) *Cambridge University : Current periodicals available in the University Library*

a46,256117 where

- a = bibliography
- 46 = periodical from [P]
- 2 = library catalogue from [P2]
- 56117 = Cambridge from [P3] number taken from the Space Isolate

(4) *Catalogue of maps published in India.*

Bibliographies, Catalogues or lists are all treated alike for classification purpose and they are put under the Generalia Bibliography a

a17,344 where

- a = bibliography
- 17 = maps from [P]
- 3 = Publishers catalogue [P2]
- 44 = India [P3] number taken from the Space Isolate

Please note there is no connecting symbol between [P2] and [P3] because [P2] is represented only by one digit and hence any further number added is from [P3].

(5) *Mysore Research Institute : A catalogue of Kannada manuscripts*

a12-333,24413 where

- a = bibliography
- 12 = manuscript from [P]
- 3 = by language from [P]
- 33 = Superimposition method; Kannada language added from Language Schedule.
- 2 = library catalogue from [P2]
- 4413 = Mysore or Karnataka [P3] taken from Space Isolate.

(6) *List of newspapers published from Delhi in 1983*

a44,14481,N83 where

- a = bibliography
- 44 = newspaper from [P]
- 1 = list of publication in a geographical area from [P2]
- 4481 = Delhi from [P3] number taken from Space Isolate
- N83 = 1983

(7) *Catalogue of Oxford University Press*

a43,40 where

- a = bibliography
- 43 = printed books from [P]
- 4 = publisher's catalogue from [P2]
- O = Alphabetical Device from [P3]

When the number 3 or 4 i.e., Bookseller or Publisher's Catalogue, is taken from [P2] they are to be arranged in the alphabetical order of the names of the firms.

(8) *India Office Library : Catalogue of Hindi books*

a43-3152,256 where

- a = bibliography
- 43 = printed books from [P]
- 3 = by language from [P]
- 152 = sharpened by superimposition method. 152 taken from Language Schedule
- 2 = Library Catalogue from [P2]
- 56 = England. (India Office Library is in London)

(9) *Ulrich Periodicals Director, 1984*

a46,11n73,N32 where

- a = bibliography
- 46 = periodicals from [P]
- 1 = list of publications in a geographical area from [P2]
- 1 = World from [P3]
- n = Common Isolate for serial or directory
- 73 = USA (published from or originated from)
- N32 = Started in the year 1932

In case of serial publications for the purpose of class number, the year when the serial started publication is taken. The actual date or year of the serial, in this case 1984, becomes part of the book number.

(10) *Manager of Publications, Govt. of India : Catalogue of Publications 1971*

a55,144,N where

- a = bibliography
- 55 = Government publications from [P]
- 1 = list of publication in a geographical area from [P2]
- 44 = Indian [P3]
- N = Started in the 20th century

The class number a43-55,144,N is also correct. In this case 43-55 is coined by superimposition method where 43 is printed books and 55 published by government.

Self Check Exercise - 3

Construct class numbers for the following titles :

- a) *Books in Print in USA (started in 1948)*
- b) *Oxford University: Current periodicals available in the university library, 1990*

- c) *Mc Graw-Hill Publications*
- d) *Catalogue of books of Oxford University Press*
- e) *A catalogue of the Exhibition of India's 19th century manuscripts*
- f) *Reading list of children books*
- g) *Union catalogue of reference books in district libraries of Himachal Pradesh*
- h) *List of newspapers published from Bombay (1988)*
- i) *Madras Research Institute: A catalogue of Tamil manuscripts*

Note: i) Write your answer in the space given below.
 ii) Check your answers with the answers given at the end of this unit.

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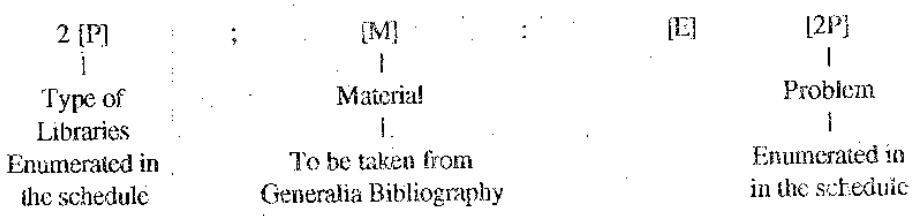
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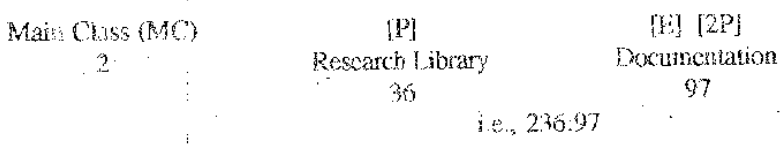
6.4 LIBRARY SCIENCE

The facet formula prescribed for Library Science is



There are two other Rules (1) A scheme of Classification can be individualised by Chronological Device and some worked out numbers are provided in page 1.64. The focus of classification can be further sharpened by Subject Device. (2) A specific cataloguing code should be individualized by (CD). Examples covering these rules are also worked out below.

(1) *Documentation work in research libraries*



(2) *Lending of periodicals in medical libraries*

(MC)	[P]	[M]	[E]	[2P]
2	Medical Libraries	Periodicals	Lending	
	4(L)	46	62	

i.e., 24(L);46:62

where

4 = Business Library.

4L = Medical Library. There is a direction that other types of libraries are to be derived by Subject Device and also two examples are given. Any number derived through Subject Device (SD) is to be enclosed in circular bracket.

46 = Periodicals. This is taken from Generalia Bibliography Class as directed in the Rules. [P] of Generalia Bibliography is Material Facet in Library Science and hence 46 is preceded by a semi colon.

62 = Lending from [E]

(3) *Reference work in Indian law libraries*

24(Z):7.44

Law library is derived by (SD) as done in the previous example. Other facets are self explanatory. Space Isolate can be added whenever warranted and need not be part of a facet formula.

(4) *National libraries of the world, 1957*

213.1'N5 where

2 = Library science

13 = National libraries from [P]

1 = World from Space Isolate

N5 = 1950s.

(5) *Classification of agricultural books by Colon Classification*

2:51N3,(J)

Facet Formula	2[P];	[M]	[E]	[2P]
	Absent	1	Classification	
		Absent	51	

There is a further direction in the Rules that a specific scheme of classification is to be individualised by (CD). The year, to be taken is the year when the Scheme came into being first. Colon Classification was published first in the year 1933 and it suffices to take only N3. There is a further facet formula for Classification i.e., 2[P] : 51, [2P] To be derived by (SD)

When the focus in Energy facet is 51, the subject to be classified is to be derived by Subject Device.

(6) *Anglo-American Cataloguing Rules, 2nd edition, 1977*

2:55N7

In case of a particular Catalogue Code it is to be individualised by (CD) as done for Classification schemes. AACR2 was published in the year 1977 and hence N7 (1970s) has been added to 55 Cataloguing.

(7) *Issue methods in the regional libraries of Andhra Pradesh*

214:62.4416 where

2 = Library Science

14 = Regional Libraries

62 = Lending

4416 = Andhra Pradesh

(8) *Cataloguing of films by CCC in research libraries*

236;512:55N3 where

2 = Library Science

36 = Research Libraries

512 = Film rolls from [P] of Generalia Class

55 = Cataloguing

N3 = A cataloguing Code came into being in 1930s, i.e., Classified Catalogue Code (1934)

(9) *Indian Library Association : Mode of election of the President*

2.44,g,9N3,2:91 where

2 = Library Science

44 = India

g = Posteriorising Personality Cl of for learned society

9N3 = a non-localized body started in 1930s

2 = from Main Class History 2-Executive

91 = Election method - also from History [E]

(10) *Use of Computers in Libraries*

20aD65,8(B) where

2 = Library Science

0a = Phase Device - general relation

D65,8(B) = Computer Engineering — enumerated number under Engineering class.

Self Check Exercise - 4

Construct class numbers for the following titles :

- a) *Maintenance of manuscripts in National libraries*
- b) *Reference work in Indian Medical libraries*
- c) *Charles C Jewett's Cataloguing code (1852)*
- d) *Cataloguing of filmstrips by CCC in research libraries*
- e) *Dewey Decimal Classification of Library Science*
- f) *Documentation in Mathematics in India*
- g) *APLA: Mode of election of the president*
- h) *Circulation of periodicals in Music libraries in Germany in 20th century.*

- Note: i) Write your answer in the space given below.
ii) Check your answer with the model answers given at the end of this unit.

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6.6 MISCELLANEOUS MAIN CLASSES

Ranganathan grouped the main classes in Colon Classification (Ed.6) on the following lines :

- i) The classes B to M are all subdivisions of class A Natural Sciences, which include the classes C to F constituting the generic class called "Physical Sciences"; and the classes G to L constituting the generic class called "Bio-sciences".
- ii) The classes N to Z constitute "Humanities and Social Sciences".
The classes N to S constitute the generic class called "Humanities".
The classes T to Z constitute the generic class called "Social Sciences".
- iii) Δ "Spiritual Experience and Mysticism" forms a class by itself.

Though the main class 'M Useful Arts' is included as one of the subdivisions of class 'A Natural Sciences', but it was not included either in Physical sciences or in bio-sciences. Spiritual Experience and Mysticism is a separate class and not a subdivision of Humanities or Social Sciences. In this course material, the following units cover the main classes in Physical sciences (Unit-7), Biological sciences (Unit-8), Humanities (Unit-9) and Social sciences (Unit-10). Therefore the main classes 'Useful Arts' and 'Spiritual Experience and Mysticism' are included in this unit.

6.6.1 USEFUL ARTS

This is more of a miscellaneous class and there are several subjects like Military Science, Games & Sports, Cookery and also subjects of science and technology which could not be accommodated in other classes. When there are such diverse subjects in a main class, it cannot have a single facet formula. Hence many subjects are enumerated but without the provision of subdivision. Hence only broad classification numbers can be provided.

Another feature of this class is many subjects are structured on the basis of Subject Device, e.g., MB1 (B1 from Mathematics) MC3 (C3 from Physics for Sound) MNR (NR for Music) and so on. There are also some corrections to the Schedule which is shown in the Annexure. Numbers for Carpentry, Smithy and Glass industry have been changed. A separate facet formula has been provided for M7-Textiles. A new class, Home and Hotel Science is provided under MA.

Working out examples under Useful Arts is easy as there are not facet formulas involved except in case of M17, MJ7 and MA. Some illustrative examples are given below.

(1) *Teach yourself typewriting :*

Class No. = M148

(2) *The fascinating art of photography :*

Class No. = M95

(3) *The joy of fishing :*

Class No. = MY65

(4) *How to master the game of chess :*

Class No. = MY322

(5) *The art of Cookery*

Class No. = MA3

This number is taken from the Annexure. The numbers provided under Domestic Science in the Schedule is to be replaced as given in the Annexure. (See page 27)

(6) *Himalayan motor rally, 1985 :*

Class No. = MY227.4.g7IIN85

The interpretation of the number is

MY227 = Motoring (as a sport)

MY227.4 = Motoring in Asian mountain. g7 is second level of Space for mountain. See the separate schedule in the Annexure for the Second Level of Space.

MY227.4.g7H = H is for Himalayas by Alphabetic Device. Please note Himalayan mountain is classified under Asia as the mountain range spreads over different Asian countries.

MY227.4.g7H'N85 = N85 for 1985

M7 [P] ; [M] : [E] [2P]

Please note the facet formula is given in the Annexure and all the facets have been enumerated.

Only in case of Textiles there is a facet formula

(7) *Weaving of Cotton Cloth*

M73;1:3 where

M7 = Textile

M73 = 3 is from [P] for cloth

M73;1 = 1 is material [M] for cotton

M73;1:3 = 3 is for weaving

(8) *Woolen Carpets of Persia*

M75;2:45 where

M7 = Textile

M75 = Carpets. 5 from [P]

M75;2 = 2 for wool from [M] facet

M75;2.45 = 45 is Space isolate for Iran (Persia is the old name).

(9) *Twisting of coir rope*

MJ72:2 where

MJ7 = Rope making

MJ72 = 2 is for coir under [P] of MJ7

MJ72:2 = The energy facet is the same as for M7

(10) *Cotton ginning*

M7;1:2 where

M7 = Textile

M7;1 = 1 cotton from [M]

M7;1:2 = 2 is for ginning. Note two separate Energy facets have been provided but there is no confusion. The first energy facet is applicable only when there is no [P] under M7.

Self Check Exercise - 5

Construct class numbers for the following titles :

- a) *Weaving jute carpets*
- b) *Twisting jute ropes*
- c) *Cricket Association of India*
- d) *Women and Home (started in 1926 from Britain)*
- e) *Philately in Pakistan.*

Note: i) Write your answers in the space given below.
ii) Check your answers with the answers given at the end of this unit.

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6.6.2 SPIRITUAL EXPERIENCE AND MYSTICISM

No other scheme of classification has a main class under the above heading. Ranganathan has given explanation for the need of such a class. Read pages 1.92 to 1.94 of *Colon Classification*. As the Arabic numerals and Roman alphabets had been exhausted the Main Class of Mysticism is represented by the Greek alphabet Δ (delta). This class has been placed midway, between M and N. The facet formula is

Δ [P] [P2] : [E] [2P]
Religion Entity Problem

All the facets are enumerated and as such there is no difficulty in assigning number. In case of [P] wherever warranted it can be sharpened by Subject Device.

Examples

(1) *Christian mystics*

As per the facet formula only [P] is present in the subject and hence the number will be

Δ⁶

(2) *A book of palmistry*

In this case Personality facet is absent and only problem facet for palmistry is present and hence the number is

Δ:8627

(3) *A book of Indian astrology*

Here Indian is for Hindu astrology; we have both [P] and [E] facets in this subject. The number is

$\Delta 2:864$ where

$\Delta 2$ = Hindu Mysticism

$\Delta 2:864$ = Astrology according to Hindu thought

(4) *Do you believe in ghosts*

In this case [P] and [E] are absent and only [P2] is present. $\Delta, 16$ is for disembodied soul and stands for ghosts also.

(5) *Life of Ramana Maharishi (born 1879)*

There are several persons, who are known as saints, men of God or Spiritually renowned but cannot be classified under Philosophy or Religion are classified under Mysticism. In the above case it is a biographical sketch and while discussing Common Isolate, it has been stated that when the main class is Δ and V the CI w to be replaced by y7, and hence the number will be

$\Delta 2y7M79$ where

$\Delta 2$ = Hindu mysticism

$\Delta 2y7$ = y7 is for case study under CI and as per Rules for biography (w is replaced by y7)

$\Delta 2y7M79$ = Biography of a Hindu Mystic born in the year 1879, for Ramana Maharishi.

Self Check Exercise - 6

Construct class numbers for the following titles :

- a) *Stars in Hindu Astrology*
- b) *Life of Ramana Rishi (born 1879)*
- c) *Relation between Telepathy and Astrology*
- d) *American Federation of Astrologers (1938)*
- e) *Earth technique in Christian Mystics*

Note: i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this unit.

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6.6 SUMMING UP

In this unit we have worked out various examples covering the main classes, Generalia and Library Science besides the main classes without schedules (Universe of knowledge, Book science and Journalism). Generalia main class is meant for those documents which deal with several subjects and which can not be classified under any single main class. Facet [M] in Library Science is to be got from Generalia Bibliography. Titles in Library Science involving the proper names of classification schemes and catalogue codes are to be individualised by (CD).

6.7 ANSWERS TO SELF CHECK EXERCISES

1. a) 4
b) 4:(A)
c) 4wN15
d) 1a
e) 3
2. a) z41
b) 2k
c) zN
d) z6
3. a) a14,173,N5
b) a46,256151,N9
c) a14,3,M
d) a43,4,O
e) a12,544,M
f) a811,7
g) a47,24445
h) a44,14431,N9
i) a12-331,24411
4. a) 213;12:88
b) 24(L);7.44
c) 2:55M5
d) 236;1511:55N3.53
e) 2:51M,(2)
f) 2:97,9(B).44
g) 2.4416,g,9N14,2:91
h) 24(NR);46:6.55'N
5. a) M75;7:3
b) MJ75:2
c) MY2141.44,g,9N
d) M3m56,N26
e) MYX46.44Q7

6. a) Δ2,286:864
- b) Δ2y7M79
- c) Δ8340t64
- d) Δ864.73,g,9N
- e) Δ6,21:3

6.8 ASSIGNMENT

Classify the following titles :

- a) *Use of computers in library cataloguing*
- b) *Cataloguing of pamphlets in music library*
- c) *Osmania university library : Descriptive catalogue of Sanskrit manuscripts*
- d) *Manorama Year Book, 1984 (Started in the year 1972)*
- e) *Classification of Arabic manuscripts by UDC*
- f) *Union list of social science periodicals*
- g) *Journal of Documentation, 1985 (started in 1961)*
- h) *India who is who, 1984 (This is the 15th annual edition)*
- i) *A list of children's books in Telugu*
- j) *Classification of medical books by LC Classification scheme*
- k) *Granthalaya Sarvaswamu (started in 1915, Vijayawada)*
- l) *Cutter's Rules for Dictionary Catalogue, 1876*
- m) *Journalism and Politics*
- n) *Do you believe in numerology*
- o) *Prophecy through crystal gazing*
- p) *Dyeing of silk yarn*

Unit-7: EXAMPLES FROM MAIN CLASSES: PHYSICAL SCIENCES

Contents

- 7.0 Aims and Objectives
- 7.1 Introduction
- 7.2 Mathematics
- 7.3 Physics
- 7.4 Engineering
- 7.5 Chemistry
- 7.6 Technology
- 7.7 Summing Up
- 7.8 Answers to Self Check Exercises
- 7.9 Assignment

7.0 AIMS AND OBJECTIVES

In this unit we will introduce you to the schedules of Physical Sciences, covering the subjects Mathematics, Physics, Engineering, Chemistry and Technology.

By studying this unit you should be able to

- list different subjects covered under physical sciences;
- explain the facet formula for each of the main classes in physical sciences; and
- construct class numbers for the documents with subjects belonging to these main classes

7.1 INTRODUCTION

Colon Classification is based on sound theoretical principles. These principles are observed even in the sequence of main classes. The sequence of main classes is one alternating pure and applied disciplines. The progression of main classes is from the abstract to the concrete. Natural sciences begin with abstract discipline of mathematics, then follows physics, chemistry, technology, biology, etc. All these main classes are not co-ordinate. Some of them are partially comprehensive of others. The classes B to M are all subdivisions of class A Natural Sciences. Natural sciences consist of Mathematical, Physical and bio-sciences. The classes AZ Mathematical sciences and BZ Physical sciences are partially comprehensive. C to F constitute the generic class called "Physical sciences". Schedules and facet formulas are given for main classes only. Facet formulas and peculiarities in each of these main classes mathematics and physical sciences are discussed and various examples are worked out.

7.2 MATHEMATICS

Mathematics is the science of structure, order and relation that has evolved from elemental practices of counting, measuring and describing the shapes of objects. It deals with logical reasoning and quantitative calculation.

Mathematics is divided on canonical basis. Traditional sub-classes of a main class, enumerated as such in a scheme of classification for the universe of knowledge and not derived on the basis of definite characteristics are known as 'Canonical classes'. The facet formulas are applicable not to the main class but they are given separately for canonical classes. Main class mathematics is a very complex one. The following are the canonical divisions of Mathematics:

- B1 Arithmetic
- B2 Algebra
- B3 Analysis
- B4 Other methods
- B5 Trigonometry
- B6 Geometry
- B7 Mechanics
- B8 Physico-mathematics
- B9 Astronomy

Examples :

(1) *Linear algebra* B25,1

The facet formula is for B25 [P] . [P2] [E] [2P]

Linear is under [P2]. [P] is absent.

The number is B25,1

(2) *Introduction to algebraic topology*

Is an enumerated number, i.e., B316

(3) *Matrix theory for physicists*

The subject is Matrix Theory and is biased towards physics, hence is a phase relation.

Matrix theory = B245

Biased phase = Ob

The second phase = C

Therefore the number is B245ObC

(4) **Plane geometry**

Geometry is B6

Facet Formula B6 [P] : [E] [2P]
Plane 2
ie. B62

(5) **Elements of partial differential equation**

Differential equation = B33

Partial differential equation = B33,4

4 is from [P2] of B33.

(6) **Philosophy of mathematics**

This is a case of Subject Device.

Mathematics, its philosophy, i.e., B:(R)

(7) **Radio astronomy**

Astronomy = B9

Radio astronomy is under [P], 95
ie. B995

(8) **A study of solar eclipse**

Solar means of the sun.

Facet Formula B9 [P] : [E] [2P]
Sun 3 Eclipse 57

ie., B93:57

(9) **Physics of the sun**

The subject is about sun and hence it goes under Astronomy = B9

Sun = B93

This is case of Subject Device. The study of the sun from the physics point of view.

ie., B93:(C).

(10) **Foundations of projective geometry**

Geometry = B6

Facet Formula = B6 [P] : [E] [2P]
Absent Projective 7

ie., B6:7

Self Check Exercise - 1

Construct class numbers for the following titles :

- a) *Wave mechanics of gases*
- b) *Atmosphere of Jupiter*
- c) *Geometrical method in distribution*
- d) *Sixth order ordinary linear equations*
- e) *International Mathematical Union (Paris, 1978)*
- f) *All-India Seminar on Probability Theory (Calcutta, 1985)*
- g) *Nizamiah observatory (Hyderabad)*
- h) *A study on Indian Standard Time*
- i) *Difference between cardinal and ordinal numbers*
- j) *Linear transformations of n-th degree binaries*

- Note: i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this unit.

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7.3 PHYSICS

Physics is the science of matter and energy and of interactions between the two, grouped in traditional fields. It has been divided into canonical divisions as in Mathematics. Systems and Specials are also given at the end of the Physics schedule.

The canonical divisions of Physics are :

- C1 Fundamentals
- C2 Properties of Matter
- C3 Sound

- C4 Heat
- C5 Light, Radiation
- C6 Electricity
- C7 Magnetism
- C8 Cosmic hypotheses

C2 Properties of Matter.

Facet formula C2[P] : [E] [2P]

Note: The facet formula given in the schedule is C2[P], [P2] which is a misprint and should be replaced by the above facet formula.

Examples :

Below are worked out ten examples from Physics

(1) *Introduction to acoustics*

Acoustics is a topic under the canonical class Sound-C3

Facet formula C3 [P] : [E] [2P]
 Absent Acoustics
 7
 i.e., C3:7

(2) *Solid state physics*

It goes under properties of matter, i.e., C2

Facet formula C2 [P] [P2]
 Solid Absent
 i
 i.e., C21

(3) *Transmission of sound*

Here transmission means propagation

Sound = C3
 Propagation = [E], 2
 i.e., C3:2

(4) *Principles of solidification*

Subject is heat = C4

Facet formula C4 [P] : [E] [2P]
 Absent Solidification
 511
 i.e., C4:511

(5) **Absorption of light**

Canonical class is Radiation = C5

Facet Formula C5 [P] : [E] [2P]
Light Absorption
1 7

i.e., C51:7

(6) **Theory of electrical conduction**

Subject Electricity = C6

Facet formula C6 [P] : [E] [2P]
Absent Conduction
21

i.e., C6:21

(7) **Thermoelectricity - proceedings of the conference held in September 1958, USA**

Thermoelectricity = C6:44

C6 = Electricity

44 = Thermo-electricity from [E]

Conference proceedings = D (common isolate),

i.e., C6:44p73,N58 (73 and N58 as per the formula of Common Isolate p)

(8) **Nature of magnetism**

Magnetism = C7

Nature of magnetism = C7:8

(9) **Nuclear fission**

Nuclear Physics = C9B3

fission = C9B3:11

(10) **Density of gas at high temperature**

High temperature is special and hence to be taken first = C9D8

Density of gas is property of matter and the number is C28:13, where

C2 = Properties of matter

8 = Gases from [P]

13 = Density from [E] [2P]

[P2] given in the schedule is a print mistake.

Check the Rules in Part I,

i.e., C9D8,28:13

Note: There is a misprint in the facet formula given in the schedule of Main Class Engineering. It should be replaced by the above facet formula.

Foci in [P] Work
[P2] Part (for all work facet except D6) field of applicability for D6
[E] [2P] Problem

Foci in [P] in 'work facet' has been divided into 8 divisions.

- 1 Civil engineering
- 2 Irrigation and drainage work
- 3 Building
- 4 Transport-track
- 5 Transport-vehicle
- 6 Mechanical engineering
- 7 Nuclear engineering
- 8 Municipal (sanitary) engineering

The isolate numbers in [P2] have been enumerated separately for different types of work facet [P]. In D6 Mechanical Engineering, the isolate numbers in Foci in [P2] represent field of application and other machineries in it are to be got by (SD).

The problem facet [E] [2P] have been enumerated. The focus 15-Hydraulics in the problem facet should hold books dealing with general Hydraulics, topics such as flow of water etc. Books dealing with irrigation should be put in the work division '2'.

At the end of the schedule some divisions of common isolate 'e' (i.e. formula) have been illustrated. These subdivisions are to be applied to the work division 66.

Examples :

(1) *How to repair diesel engines*

Numbers for both diesel engine and repair work are enumerated and you have to just fix them in the appropriate facets.

D6466:85 Where
D6466 = Diesel engine
D6466:85 = Repair of diesel engine

(2) *Modern refrigeration and air conditioning*

Refrigerating and air conditioning is represented by the same number under mechanical engineering:

D6,8(MC421)³ Where
D6 = Mechanical engineering
D6,8 = [P2] applicable to D6.
Here 8 is other types of machinery and derived by Subject Device.

D6,8(MC421) = MC421 is derived by Subject Device. M is Useful Arts. MC is Useful Arts depending on Physics. MC42 Useful Arts depending on Transference of Heat. MC421 one type of Useful Arts depending on Transference of Heat which stands of Refrigeration.

(3) *Computer engineering*

D6,8 (B)

The meaning of deriving different machinery by Subject Device is further cleared by this example. Mathematics is the basis of Computer Science and the Machinery based on Mathematics is coined by the number 8(B). Any type of machinery can be derived by Subject Device and in the Schedule few illustrative examples are given (p.2.43). The above number has been given in Colon Classification. It is better to classify computers under electronic engineering. Note the example No. 10.

(4) *Design of television sets*

D65,45:4 where

D65 = Electronics

D65,45 = Television. 45 is differential facet applicable to Electronics under [P2]

D65,45:4 = The last 4 is for design

(5) *Statistical methods in structural mechanics*

This is application of statistics to structural mechanics, or mechanics in relation with statistics.

D6:110aB28 where

D6 = Mechanical engineering

D6:11 = Structural mechanics

D6:110a = Structural mechanics in relation with -
(Phase device - 0a is connecting symbol)

D6:110aB28 = Structural mechanics in relation with statistics. B28 is statistics.

(6) *A Comparative study in the construction work of broad gauge and metre gauge railway line in India.*

D415320v3:7.44 where

D41532 = Metre gauge railway line

D415320v = 0v is the connecting symbol for intra-array comparison relation

D415320v3 = Comparison between metre gauge and broad gauge railway line.
Number for broad gauge is D41533 and only the last 3 is retained as the connecting symbol 0v indicates that it is taken from D4153.
Note also that metre gauge is taken first as per the rules.

D415320v3:7 = Comparison between the construction of metre gauge and broad gauge railway line. 7 is for construction.

D41532v3:7.44 = 44 is for India.

(7) *Specifications for reinforced concrete roofs*

- D36,6:5 where
D36 = Reinforced concrete for buildings
D36,6 = Reinforced concrete roofs
D36,6:5 = Specification for reinforced concrete roofs.

(8) *Surveying overhead transmission of electricity*

- D66,21:2 where
D66 = Electrical engineering
D66,21 = Overhead transmission of electricity
D66,21:2 = Surveying overhead transmission of electricity

(9) *Aerodrome construction in India*

- D43,8:7.44 where
D43 = Airways
D43,8 = Aerodrome.
 Though the title does not say airways you cannot take directly 8 from [P2]
D43,8:7 = construction of aerodrome
D43,8:7.44 = In India

(10) *Electronics digital computers - design and construction*

- D65,8(B):4 where
D65 = Electronics
D65,8(B) = Note example 3, where Computer is classified under mechanical engineering.
 There the point of view is mechanical.
 Same number 8 can be applied as a differential fact for Electronics also.
D65,8(B):4 = Design of electronic Computers.

Self Check Exercise - 3

Construct class numbers for the following titles :

- a) *Constructing brick roofs*
- b) *Surveying for underground railway platform*
- c) *Drilling tools*
- d) *Repair of harvesting machinery*
- e) *Mechanical printers*
- f) *Electronic clocks*
- g) *Voltmeter*

- h) *Biology of water supply*
- i) *Renewal of neutron machinery*
- j) *Hydraulic lifts*

Note: i) Write your answer in the space given below.
 ii) Check your answer with the answers given at the end of this unit.

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7.5 CHEMISTRY

Chemistry is that branch of science which studies the properties, composition and structure of substances, the transformations that they undergo and the energy that is released or absorbed during these processes.

To classify Chemistry class one requires some knowledge of the subject. The construction of the substance number i.e. [P] depends on the periodic Table. A substance number usually consists of three digits (there may be cases where it may be four or even five), the first digit stands for element, the second for the group to which it belongs in the Periodic Table and the third digit is its period number in the Periodic Table. For example chromium is 162 and to analyse it, 1 stands for the element, digit 6 is the sixth group in the Periodic Table and 2 is the period of chromium in the Periodic Table. If a book deals with hydroxyl or basic oxide of an element, its substance number will consist of digit 2 followed by the number of the constituent element whose hydroxyl or basic oxide forms the primary subject matter of the book. In case of acids and salts the substance number should consist of digit 3 and 4 respectively followed by the full element number of the constituent element. Based on these some examples on chemistry are worked out below. However, it may be stated here that students need not go beyond the enumerated schedule.

The Facet Formula is

E	[P]	[P ²]	:	[E]	[2P]
	Substance	Combination for 5,6,7 & 8 of [P]		Problem	

Examples :

(1) *Analytical chemistry of Thorium*

E149:3 where

E149 = Thorium

E149:3 = Analytical chemistry

(2) *Inorganic semimicro qualitative analysis*

E1:33,2 where

E1 = Inorganic Chemistry

E1:33 = Qualitative Chemistry

E1:33,2 = 2 is from [2P2] of [E] and applicable to 3 of [E]. 2 is semimicro

(3) *Modern aspects of polarography*

E:3,T1 where

E = Chemistry

E:3 = Analytical Chemistry

E:3,T1 = Polarography. T1 is from [2P2] applicable to 3 of [E].

(4) *Chemical Kinetics of gas reaction*

E198:213 where

E198 = Gas

E198:213 = Chemical Kinetics of gas

(5) *Synthesis of heterocyclic compounds*

E8:4 where

E8 = Heterocyclic compounds

E8:4 = Synthesis of heterocyclic compounds

(6) *Thermodynamic properties of carbon dioxide*

E2404:24 where

E = Chemistry

E2 = Dioxide

E2404 = 404 is from the element number. 140 is carbon and the initial 1 is to be omitted. The element number and valency number to be added to oxide. The last 4 is valency number. The group number is valency number.

E2404:24 = Thermodynamics of Carbon dioxide.

(7) *Oxide, acid and salt* numbers are constructed with the aid of the element numbers provided under inorganic substances. It may be stated here that in *Coloni* all the numbers for substances are not provided and the element numbers are not exactly as in the *Periodic Table*. Further as stated earlier unless the students have some knowledge of chemistry, it is not possible to construct the numbers. The few worked out numbers here are only illustrative of the Rules.

Laboratory preparation of nitric acid.

- E3505:11 where
E3 = Acid
E3505 = Nitric Acid. 50 is from 150 of substance where initial 1 is left out.
 The last 5 is valency number.
E3505:11 = Preparation of nitric acid.

(8) Analysis of sulphuric acid

- E3616:3 where
E3 = Acid
E3616 = Sulphuric acid. 61 is for sulphur from 161 of [P]. The last 6 is valency.
E3616:3 = Analysis of sulphuric acid.

(9) Synthesis of Zinc sulphide

- E42361:4 where
E4 = Salt
E423 = Salt + Zinc (Zinc is 123 under [P])
E42361 = Zinc sulphide. 61 is from 161 of [P].
 Initial 1 is omitted. Here two elements are combined as per the worked out
 number in Colon (see page 1.76 — Synthesis of Gold Chloride)
E42361:4 = Synthesis of Zinc sulphide

(10) Biochemical analysis of Carbohydrates

The subject is biochemistry and hence it is classified under E9G (Special under Chemistry)

- E9G,8:3 where
E9G = Biochemistry
E9G,8 = Carbohydrates of biochemistry.
 8 is carbohydrates under [P] of E, and as per Rules to be preceded with a comma.
E9G,8:3 = Biochemical analysis of carbohydrates.

Self Check Exercises - 4

Construct class numbers for the following titles :

- Commercial organic analysis
- Biochemical catalysis of calcium
- Quantitative analysis of proteins by Raman spectra (Biochemistry)
- Solution of organic acid in starch
- Oxidation of sulphur
- Russian Journal of Organic chemistry

- g) *Chemical calculations: an introduction to the use of mathematics in chemistry*
- h) *Advances in heterocyclic chemistry* (an annual publication started in the year 1963)
- i) *Valency and molecular structure*

Note: i) Write your answer in the space given below.
 ii) Check your answer with the answers given at the end of this unit.

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7.6 TECHNOLOGY

Technology is an applied science. Technology may be defined as 'systematic knowledge and action usually of industrial processes but applicable to any recurrent activity'.

The facet Formula for Technology is

F [P]	:	[E] [2P]
Substance		Process and Problem

In addition to the enumerated numbers under F other are same as [P] of Chemistry. [P] can also be formed by (SD).

Process number to be formed by (AD) and problem number to be taken from [E] [2P] of Chemistry. This is restricted to the second digit onwards of the problem Division '8 Manipulation'

Examples :

(1) *Manufacture of sulfuric acid*

F361 where

F = Technology. The subject of applied science, Chemical engineering, several industrial manufacture fall under the Technology Class.

F3 = Acid from [P] of Chemistry

F361 = 61 is Sulphur under Group 6 of Chemistry.
 The number is co-extensive, standing for manufacture of sulphuric acid.

(2) *Carbonization and hydrogenation of coal*

- F551:2 where
F551 = Coal technology. 551 is as given under the main Class F.
F551:2 = 2 is from 82 of chemistry under [E] [2P] which is hydration.
In the Rules part it is stated that all the process and problem isolates have not been worked out and hence only the nearest to the meaning can be taken.

(3) *The Chemistry and technology of leather*

Leather industry as such is treated as Useful Arts and hence the Main Class is M. There the discussion is the end product of leather. Technology of leather is the preparation of hide and skin into leather, and hence the Main Class here is Technology.

- F(M97) where
F = Technology
M97 = Leather industry from the Main Class [M].
The [P] facet is derived by Subject Device.

(4) *Fermentation of grape wine*

- F547(J374):7 where
F547 = Wine technology or wine manufacture
F547(J374) = J374 is grape from the agriculture class. 547(J374) becomes grape wine.
F547(J374):7 = Fermentation of grape wine. 7 is taken from 87 fermentation from [E] [2P] of Main Class Chemistry. As per Rules the initial '8' is omitted.

(5) *Technology of sugar crystallization*

- F(J94):31 where
F = Technology
F(J94) = Sugar technology. J94 is sugar from the Main class Agriculture.
J94 is put in brackets as it is derived by (SD)
F(J94):31 = Technology of sugar crystallization.
831 is crystallization under [E] [2P] in the Main Class Chemistry.
The initial '8' is omitted as per Rules.

(6) *Glass blowing technology*

No material or substance is provided under [P]. Whole subject has been treated as a problem facet and a number has been provided under 'glass blowing'.

- F:96 = Technology of glass blowing.
96 is from [E] [2P] of the Main Class Chemistry where 896 is glass blowing and 8 is omitted as stated in the Rules.

(7) *Computer application in metallurgical engineering*

- F1910aD6,8(B) where
F191 = Technology of metals or metallurgy.
191 is from [P] of Main Class Chemistry.
F1910a = General Phase relation
F1910aD6,8(B) = Use of computer in metallurgy

(8) *Steel technology*

- F1823 where
F182 = Technology of iron. 182 is from chemistry for iron.
In cases where there is more than one industrial form for any substance the other forms should be worked out by Favoured Category Principle. An example is worked out (Refer Rules under Technology) for iron and 1823 is worked out number for Steel.

(9) *Report of the Central Food Technological Research Institute for the year 1983-84*

- F53.44,f,Cr'N84 where
F53 = Food Technology
F53.44,f = A food technology investigating institute in India, f is Personality Posteriorising Common Isolate.
F53.44,f,C = C is for Alphabetic Device for the name of the institute, Central Food Technological Research Institute
F53.44,f,Cr'N84 = r for Report and N84 for 1984.

(10) *Vegetable dyeing*

- F58(J) where
F58 = Dye
F58(J) = Vegetable dye. J is for Agriculture

Self Check Exercise - 5

Construct class numbers for the following titles :

- a) *Petroleum filtration*
- b) *Fermentation of alcohol*
- c) *A B C process of water distillation*
- d) *Statistics of soap making in A.P., 1980*
- e) *Atlas of drug manufacturing in US*
- f) *Hydrogenation of coal*
- g) *Fermentation of grape wine*
- h) *Difference between paints and tanning material*
- i) *Report of Shri Ram Chemicals (Manufacturers, India, 1992)*

- Note: i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this unit.

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7.7 SUMMING UP

In this unit we have discussed the facet formula and structure of schedules in the main classes belonging to the group of physical sciences. We have also worked out various examples to explain you how to classify documents with the subject physical sciences using CC6.

The main classes Mathematics and Physics are first divided on the basis of canonical divisions. While the divisions of Personality in Chemistry are based on the classification of elements as in 'Periodical Table'. The main class Engineering uses the concept of differential facets. We have also cautioned about the misprints here and there in the facet formulas.

7.8 ANSWERS TO SELF CHECK EXERCISES

1. a) B78:55
b) B945:6358
c) B132,2:6
d) B331,1,6
e) B.1,g,9N7
f) B281p44,N85
g) B9.44,f2,N
h) B9:165.44
i) B31110w3
j) B252,7:1
2. a) C25:13
b) C31:38
c) C4:7

- d) CN2,9D1
 - e) C9D8:215:2
 - f) C330t4:(B)
 - g) C9B3.44,d,S
 - h) C:f3
 - i) Cm44,N7
 - j) C9B38:58
3. a) D33,6:7
- b) D4154,87:2
 - c) D6,845
 - d) D6,8(J:7):85
 - e) D6,8(M14)
 - f) D68,8(B9:165)
 - g) D66e34
 - h) D85:(G)
 - i) D6,8(C9B3):825
 - j) D635,71
4. a) E5,3,6
- b) E9G,122:88
 - c) E9G,92Z2:33,E7
 - d) E6892,3:22
 - e) E161:81
 - f) E5m47,N
 - g) E0bB
 - h) E8n1,N63
 - i) E:215
5. a) F555:92
- b) F54:7
 - c) F210:A:35
 - d) F9496.4416'N8s
 - e) F56fN8.73
 - f) F551:2
 - g) F547(J374):7
 - h) F58950w7
 - i) F.44,h,S'N92

7.9 ASSIGNMENT

Classify the following titles :

- a) *Is there life on Mars*
- b) *A history of luminescence from earliest times to 1900*
- c) *X-rays and gamma rays*
- d) *Raman spectroscopy*
- e) *Indian Journal of Electronics* (started in 1965)
- f) *Biochemical analysis of starch*
- g) *Encyclopedia of enzyme technology*
- h) *Handbook of pulp and paper technology*
- i) *Statistics of road paving machinery, 1973*
- j) *Analysis of nickel*

BRAOU

UNIT-8 : EXAMPLES FROM MAIN CLASSES : BIOLOGICAL SCIENCES

Contents

- 8.0 Aims and Objectives
- 8.1 Introduction
- 8.2 Biology
- 8.3 Geology
- 8.4 Mining
- 8.5 Botany
- 8.6 Agriculture
- 8.7 Zoology
- 8.8 Animal Husbandry
- 8.9 Medicine
- 8.10 Pharmacognosy
- 8.11 Summing Up
- 8.12 Answers to Self Check Exercises
- 8.13 Assignment

8.0 AIMS AND OBJECTIVES

In this unit we will introduce you to the schedules and facet formulas of the main classes grouped under Bio-sciences.

By studying this unit you should be able to

- explain the facet formula for each of the main classes under Biological sciences;
- describe the structure of schedules for each of the main classes; and
- construct class numbers for documents with subjects belonging to these main classes.

8.1 INTRODUCTION

The sequence of main classes in CC is one of alternating pure and applied disciplines, however, it concentrates on the pure disciplines mostly. Ranganathan included the classes G to L in the generic class 'Bio-sciences'. The alternating pure and applied disciplines are prominent in this generic class. For example, H Geology is followed by HX Mining, L Botany is followed by J Agriculture, K Zoology is followed by KX Animal husbandry; and L Medicine is followed by LX Pharmacognosy.

In this unit nine more Main classes are discussed. There are few things common to some of these classes. Problem facet for Biology, Botany and Zoology are common. Hence they are not repeated in Botany and Zoology classes. The Personality facet in Agriculture and Animal Husbandry are based on group notation. For all the classes many isolates enumerated in the Main Class Medicine can be applied wherever warranted. Specially in case of diseases in the Biological classes can be drawn from Medicine. Directions are given at appropriate places how to sharpen an isolate when need arises.

8.2 BIOLOGY

Biology is the study of living things of plants, animals and man. It is the basis for the study of medical science. The research in medical science is actually basic research in biological science. Hence when there is a combined or descriptive study of plants, animals or man, it will go under the Main Class Biology.

G [P] : [E] [2P]
Organ and Problem
Special grouping

When the Problem facet is 33, 341, 345 or 346 and their subdivision, [2M] should be added wherever warranted. Material Facet i.e., [2M] is the same as substance facet in Chemistry.

When the focus is 12 to 18 and 5 in problem Facet [E] may have to be added if warranted.

Based on these Rules below are worked out few examples.

(1) *Cell Structure*

Study of cells is a biological subject and a number under [P] is provided. In every case you may not find the same terms in the Schedules as in the titles of the documents. Meaning of structure is morphology or anatomy. Hence the number will be

G11:2 where
G = Biology
G11 = Cell biology
B11:2 = Morphology of cells or structure of cells.

(2) *Life on Australian Seashore*

The subject of this type of book is called seashore biology. The term used in the schedule is coastal under the facet [P]. The other facet is Space and hence the number is G95531.8

(3) *Notes on microscopical technique for Zoologist*

After analysing the subject you may conclude that it is microscopy for Zoologists, or microscopy biased towards Zoologists. The number for microscopy is

G:19

In the subject there is bias phase and hence the full number will be

G:190bK where
G = Biology
G:19 = Microscopy
G:190b = Microscopy biased towards
G:190bK = Microscopy biased towards Zoology

(4) *Protein metabolism*

Analyse the subject according to the Facet Formula, you will find as below :

Main Class	[P]	:	[E] [2P]	:[2M]
G	Absent		Metabolism	Protein

You may be puzzled how [2M] has come after Energy Facet. The order of the Five Fundamental Categories is PMEST, that means [M] comes before [E], but in the subject above [M] comes after [E], that is why it becomes second round of [M].

The construction of the number is G:33 metabolism. The Rule states that when the focus in [E] is 33 and if you have to take the Matter, it should be taken from the [P] of the Main Class Chemistry. Hence the coextensive number is

G:33;92Z2

(5) *A physiological study of embryo cells*

Embryo is a Special in the Main Class Biology. You have studied when there is a System or Special, it should be taken first and the Facet Formula prescribed for the Main Class is also applicable to System or Special of the Main Class. Hence the Facet Formula will be G9B, [P] : [E] [2P] — Remember that [P] is to be preceded by a comma in case of Systems and Specials.

G9B,	[P]	:	[E] [2P]
	Cell		Physiology
	11		3

The number will be G9B;11:3

(6) *Biostatistics*

The subject is statistical methods in biology, or use of statistics for biological studies. Statistics is intertwined with biology and hence statistics to be applied as a Subject Device.

G:(B28)	where
G	= Biology
B28	= Statistics. Applied by Subject Device

(7) *Flora and Fauna of the Himalayas*

Such subject should be classified under the Main Class Biology. It is a descriptive study of plants and animals kingdom. When the focus is multifocus it need not be represented and hence the Facet [P] can be omitted. Descriptive study under [E] [2P] is represented by 13 and hence the number is

G:13

When the Energy facet is 12 to 18 usually Space to be added.

Himalayan region is added by second level of Space and the coextensive number will be G:13.4.g7H

Himalayan Mountain is spread over Nepal, Bhutan and India and hence Space is given as 4.

(8) *Symposium on amino acid metabolism (This was held in USA in 1973)*

- G:33;92Zp73,N73 where
G:33 = Metabolism
G:33;92Z = Metabolism of amino acid.
 92Z is [2M] and taken from the Main Class Chemistry E[P]
G:33;92Zp = p is ACI for conference proceedings.
 (Proceedings or seminars, symposia, workshops
 and conference the ACI is same)
G:33;92Zp73 = Held in USA
G:33;92Zp73,N73 = Proceedings of a conference held in USA in 1973 on
 amino acid metabolism.

(9) *Genetics for medical students*

- G:6 = Genetics

The subject is biased towards medicine and bias phase to be added G:60bL

- (10) Some other subjects common under Biology class are *Ecology, Evolution, reproductive method and ontogeny*. In some other place we have worked out a number for Ecology of Silent Valley. Try to construct the number without referring to the worked out example. In another place we have given the title *Origin of Species* by Charles Darwin (1809-1883). The subject of the book is evolution theory. Darwin's letters have been published under the title *Collected letters of Charles Darwin*. The number for this work will be G:6wM09,4. A person's correspondence is to be classified under the biography of the person and the interpretation of the number is

- G:6 = Evolution
G:6w = Biography of a person who is known in the subject of evolution
G:6wM09 = Biography of a person who was born in the year 1809 and
 is known in the subject of evolution (Charles Darwin).
G:6wM09,4 = The last 4 is for letters; see under ACI.

Self Check Exercise - 1

Construct class numbers for the following titles :

- a) *Respiratory organs of living organisms*
- b) *Microphotography of nucleus*
- c) *Life on Australian Sea shore*
- d) *Chemical effect of enzymes*
- e) *Symposium on protein metabolism (Russia:1988)*
- f) *Organic evolution for Medical students*
- g) *Ecology of Indian ocean*
- h) *Natural history of Switzerland*
- i) *Morphological differences between cells and tissues*
- j) *Conservations of forest ecology*

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this unit.

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8.3 GEOLOGY

Geology is the science of the materials, viz., rocks, soils, etc., which make up the earth and their changes in the history of the world. The following are the canonical classes listed under Geology main class :

- H1 Mineralogy
- H2 Petrology
- H3 Structural Geology
- H4 Dynamic Geology
- H5 Stratigraphy
- H6 Palaeontology
- H7 Economic Geology
- H8 Cosmic Hypothesis

Geology is first divided into Canonical Classes and the facet formulas are given to individual Canonical Classes. In case of H3, H4 and H5 there is no facet formula. The Classes are enumerated.

H1	[P]	:	[E]	[2P]
	Substance		Problem	
	Same as [P] of			
	the Main Class			
	Chemistry			

(1) *Crystalline structure of sapphire*

- H1922:8 where
H1 = Mineralogy
H1922 = Mineralogy of sapphire
H1922:8 = Crystallography of sapphire

(2) *Uranium Prospecting*

- H11691:15 where
H1 = Mineralogy
H11691 = 1691 is uranium from [P] of the Main Class Chemistry
H11691:15 = Prospecting of uranium

(3) *Geology of sand and sandstone*

The canonical class is H2 and the Facet Formula of H2 is

H2 [P]	:	[E]	[2P]
Substance			Problem
Enumerated			Same as for
in the			H1 except 8 and
schedules			its subdivision

- H2321 where
H2 = Petrology
H2321 = Geology of sandstone, 321 as given under [P] for H2

(4) *Sedimentary rocks of France*

- H23.53 where
H2 = Petrology
H23 = 3 is from [P] of H2—sedimentary rocks
H23.53 = Sedimentary rocks in France

(5) *The earth's crust*

The subject is structural geology and goes under the Canonical Class H3. Structural Geology has not been provided with a Facet Formula and all the numbers have been enumerated.

H413 is for movement and earth's crusts.

(6) *Mexico's earthquake of 1985*

- H4132.74'N85 where
H4132 = Earthquake
H4132.74 = Earthquake in Mexico
H4132.74'N85 = 1985 earthquake of Mexico

(7) *Extinct crocodiles of the Triassic age*

The subject is Palaeontology. A Canonical Class for Palaeontology has been provided but this is to be used only for Palaeontology. Palaeontology is about extinct animals. H6 (Palaeontology) is to be sharpened by the Natural Group of animals from the Main Class Zoology.

H6946 where
H6 = Palaeontology
H6946 = Palaeontology of crocodiles.
 946 is from the animal group from the Zoology Class.

In this subject the Fundamental Category Time also is present. Time is given by geological ages and hence it is to be worked out accordingly. Under H5 different ages in the evolution of the earth are provided. A rule has been given that H5 is to be replaced by A (Time isolate before 9999BC) and the appropriate age to be taken from the subdivision of H5. In the subject under discussion we have to coin the number of Triassic age. H531 is Triassic age and according to the rule H5 is to be replaced by A. The number then will be A31. The coextensive number for the subject will be

H6946'A31 = A31 is given as Time isolate with the connecting symbol single inverted comma.

(8) *Some remains of the dinosaurs of the Cretaceous age*

H6945'A34 = This is similar to example 7, where
H6 = Palaeontology
H6945 = 945 is from Zoology for dinosaurs
H6945'A34 = H534 is Cretaceous age and H5 is replaced by A as Time Isolate

(9) *Copper deposits : Origin, evolution and present characteristics*

The subject is economic geology. The Canonical Class is H7. For H7, the formula is same as H1

H7113 where
H7 = Economic Geology
H7113 = 113 is from [P] of the main class Chemistry.
 The problem facet is multifocal and hence left out.

(10) *Quantitative evaluation of predicted resources of oil and gas.*

The subject in this case also is Economic Geology. Oil and Gas here means petroleum.

H7555:155 where
H7 = Economic geology
H7555 = Economic geology of petroleum. 555 is from Technology Class.
H7555:155 = 155 is occurrence from [E] [2P] of H1

Examples :

(1) Accidents in coal mines

HX551:44 where
HX = Mining
HX551 = Coal mining. 551 is from the Main Class Technology
HX551:44 = Accidents in coal mines

(2) Mining of diamonds

HX91 where
HX = Mining
HX91 = Mining of diamonds, 91 is from H1

(3) Sulphur mining industry of Poland

HX161.595 where
HX = Mining
HX161 = Sulphur mining, 161 is from [P] of the Main Class Chemistry
HX161.595 = Sulphur mining in Poland

(4) Drilling of tunnels in mines

HX,3:13 where
HX = Mining
HX,3 = Tunnels in mines
HX,3:13 = Drilling of tunnels in mines

(5) Mine ventilation and airconditioning

HX:53 where
HX = Mining
HX:53 = Ventilation in mines. Note you cannot classify both ventilation and air conditioning. The other part of the subject is taken care of by subject cataloguing

Self Check Exercise - 3

Construct class numbers for the following titles :

- a) *Lighting system in coal mines*
- b) *Diamond ore dressing*
- c) *Drilling of sulphur mines*
- d) *Surface transport and health problems in copper mines*
- e) *Excavation of the pit in Gold mines of Kolar*

- Note: i) Write your answer in the space given below.
 ii) Check your answer with the answers given at the end of this unit.

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8.5 BOTANY

Botany is the subject deals with scientific study of plants.

This is a simple class as the rules are concerned. Only difficulty is in case of the names of the plants are concerned. The names are in Latin as known to the botanist and it is essential for the classificationist to know both the popular name as well as the Greek name.

The Facet Formula is

I [P]	[P2]	:	[E] [2P]
Natural group or names of plants	Organ or part of plants		Problem as given under the Main Class G

(1) *Physiology of flowering plants*

15:3 where

15 = Phanerogamia (flowering plants)

15:3 = Physiology of flowering plants. Energy facet is from the Main Class Biology

(2) *Respiratory system in Plants*

I,4

Here plants stand for the Main Class Botany. Only number 4 is taken from the Main Class, Medicine. Under [P2], there is a direction to take further numbers from Medicine wherever they are applicable.

(3) *Bacterial diseases in plants*

I:424 where

I = Botany

I:4 = Pathology or disease of plants. 4 is taken from the Main Class Biology

I:424 = Bacterial diseases of plants. 24 is from the Main Class Medicine.
 There is a direction under 4 in the Biology Class that further division of 4 is to be taken from 4 (diseases) of the Main Class Medicine.

(4) *A study of root diseases of flowering plants*

I5,13:4 where

I5 = Flowering plants

I5,13 = Roots of flowering plants. 13 is from [P2] as enumerated in the Schedules

95,13:4 = Diseases of the roots of flowering plants

(5) *Physiology of seeds*

I,178:3 where

I = Botany

I,178 = Seeds, from [P2]

I,178:3 = Physiology of seeds

(6) *Nitrogen metabolism in plants*

I:33;150 where

I = Botany

I:33 = Metabolism

I:33;150 = The rules given in the Biology Class are also valid in this case.

It is stated that when the number is 33 in [E] of Biology the substance [2M] is to be taken from Chemistry [P]. 150 is nitrogen.

(7) *An outline study of fossil plants*

I:8 = Palaeobotany

In case of plants which are no more existing but can be traced through the crust of the earth is called paleobotany or fossil botany. There is also provision to study the plant kingdom of a particular age. This will be discussed under the Geology Class.

(8) *Research methods in plant ecology*

I:5:f where

I = Botany

I:5 = Ecology

I:5:f = Research in plant ecology.

f is Posteriorising Common Energy Isolate for Research.

(9) *Numerical taxonomic study of the genus Salix*

I891:11 where

I = Botany

I891 = Salicinae is Salix family or Willow family of plants

I1891:11 = Classification, or nomenclature or taxonomy of salicineae family of plants.

(10) *Morphology of ferns*

- I42:2 where
- I = Botany
- I42 = Fern, Filicidae
- I42:2 = Morphology of ferns

Self Check Exercises - 4

Construct class numbers for the following titles :

- a) *Reproduction in flowering plants*
- b) *Fungal diseases in flowering plants*
- c) *Wild flowers of Ceylone hills*
- d) *Nitrogen metabolism in plants*
- e) *An outline of study of fossils of Rosales*
- f) *Indian Botanical Society*
- g) *Botanica (Indian journal started in 1950)*
- h) *Comparative study of primary and secondary roots of dicotyledons*

Note: i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this unit.

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8.6 AGRICULTURE

Agriculture is an art and practice of farming, especially of growing crops. It is concerned with the study of economic plants, their plantation, harvesting, etc.

The Personality Isolates of Agriculture Class is based on group notation. Group notation consists of two or three rich-digits and does not include any empty digit. The numbers of a Group System are deemed to form a single array. The advantage of group notation can be understood from the array formed in Agriculture Class.

The Facet Formula of Agriculture Class is

J [P] : [E] [2P] : [2E] [3P]
Plant Problem Operation

Foci in [P] has three sections. First section is called utility array, second is called part array and third is called favoured category array. With these three combined we get the plant name. The plant so derived can further be individualised by Alphabetical Device. The process of number building is explained by an example:

- J3 = Food (3 is from Utility array of [P])
- J33 = Root (3 is from Part array of [P]) and means root as food
- J331 = Beetroot (1 is derived by the Favoured category)

- J3 = Food
- J34 = Stem as food
- J341 = Potato as food

- J3 = Food
- J35 = Leaf as food
- J3511 = Rhubarb leaf as food

- J3 = Food
- J36 = Flower as food
- J361 = Cauliflower as food

- J3 = Food
- J37 = Fruit
- J371 = Apple as food
- J3751 = Mango as food
- J3751B = Benishan Mangos (a variety of mangos) derived by Alphabetical Device.

With the jointing of utility and part arrays of [P] you get the plant which is primarily used.

J5 is oil plant and J53 is oil derived from the root of a plant. J54 is oil derived from stem of a plant, J55 is oil derived from leaf of a plant, J56 is oil derived from flower of a plant and J57 is oil derived from seed of a plant. The classifier has the full autonomy to work out the numbers based on the principle stated above.

Under energy facet [2P] is a differential facet and also the second round of energy facet is a different facet. Both are enumerated.

Below are worked out few examples on the Main Class Agriculture.

(1) *Harvesting of rice*

J381:7

This is a simple number and both [P] and [E] are enumerated. J3 is food J38 is seed as food and J381 is rice. The 1 is based on the favoured category. It is presumed that rice is the most favoured food and hence given the first position under seed as human food.

(5) *Use of green manure in horticulture*

- J1:21 where
J = Agriculture
J1 = Horticulture
J1:2 = Use of manure in horticulture
J1:21 = Use of green manure in horticulture. 1 is from [2P] applicable to 2 when [E] is manure; another case of differential facet.

(6) *Cashewnut Curing in Kerala*

- J3896:7:6.4412 where
J3896 = Cashewnut
J3896:7 = Harvesting of Cashewnut
J3896:7:6 = Curing of cashewnut. 6 is from [2E] and to coin the number from [2E] first an appropriate number from [E] is to be taken
J3896:7:6.4412 = The last is Space Isolate for Kerala

(7) *Physical Properties of Soil*

J:1:(C). This is a book on Soil physics. The subject soil is intertwined with physics and hence physics to be applied as a Subject Device

- J:1 = Soil
J:1:(C) = Soil Physics

(8) *Cirtus growing in India*

You do not find any number in the Schedule for Cirtus fruits. Here you have to judge which is the utility Array and which is the part array. Cirtus fruits are mainly used for drugs, and hence the utility array is J6 and Part array is fruit. The number then will be J67 which means fruit used as drug or used for preparation of drugs. As under J67 some numbers are already worked out and the array is still open, we can assign the number J676. This is another case of autonomy to the Classifier.

(9) *Physiology of the plantain flowers*

- J3731,16:93 where
J3731 = Plantain
J3731,16 = Flowers of plantains. Though the facet formula has not given J[P], [P2] is another case how Facet Formulas can be constructed and appropriate numbers can be coined. 16 is taken from [P2] of I Botany.
J3731,16:93 = Physiology of flowers of plantains

(10) *Application of fertilizer in vegetable growing*

- J93:24:3 where
J93 = Vegetable
J93:24 = Fertilizer for vegetable. 4 is from [2P].
 You cannot take 4 directly without taking 2 of [E].
J93:24:3 = 3 from [2E] which stands for application

Self Check Exercise - 5

Construct class numbers for the following titles :

- a) *Cleaning of corn seeds*
- b) *Application of fertilizers in Dry farming of Cocoa*
- c) *Soilless farming of tomato: its use in USA*
- d) *Roots of potato plants*
- e) *Control of insect pests of sugarcane*
- f) *Storing Potassic manures for chillies*
- g) *Potato Abstracts (published from UK)*

Note: i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this unit.

8.7 ZOOLOGY

Zoology is the scientific study of animals.

This class is similar to Botany. Under Personality Facet instead of plants it deals with animal kingdom. Only difficulty one may face is to know the animal family. Names of animals are given in Greek names. Common names and technical names are found in encyclopedias and animal taxonomy books. You may take their help. Personality Facet has been enumerated. Energy Facet is same as the Biology Facet. Below are worked out ten examples.

(1) *Evolution of Vertebrates*

K9:66 where

K = Zoology

K9 = Vertebrates

66 = Evolution. The Energy Facet is from G Biology Class.

(2) *Digestive organs of invertebrate animals*

K1,2 where

K1 = Invertebrate animals

K1,2 = Here the Facet Formula is K[P], [P2] : [E]. [P2], is taken from the organ facet of the Main Class Medicine. In Medicine 2 is Digestive system.

(3) *Brain fever among wild animals*

- K9954,72:414 where
K9954 = Wild animals
K9954,72 = 72 is for brain from the Organ facet of Medicine
 on the same principles as in example 2.
K9954,72:4 = Brain diseases in Wild animals. 4 is from Biology Class
K9954,72:414 = 14 for fever under [2P] of Medicine

(4) *Insect morphology*

- K86:2 where
K86 = Insects
K86:2 = Morphology of Insects. 2 is from Biology Class

(5) *Natural History of Fishes*

- K92:12 where
K92 = Fishes
K92:12 = Natural History of Fishes. 12 is from Biology Class.

(6) *Preserving wild animals*

- K9954:527 where
K9954 = Wild animals
K9954:527 = Conservation of wild animals. 527 is from Biology Class.

) *Elephant abodes in India*

As stated earlier the names of animals are given by Greek names and hence there will be difficulty in finding the number. One way you can find is to check Dewey Decimal Schedules where usually common names and Zoological names of animals are given. Elephants are proboscidian family and as such the number will be

- K9786:571.44 where
K9786 = Proboscides
K9786:571 = Abode of elephants. 571 is from [E] of Biology
K9786:571.44 = Abode of elephants in India

(8) *A hereditical study of apes*

- K9797:61 where
K9797 = Primates (monkeys-apes)
K9797:61 = Hereditical study of apes.

(9) *Cellur biology of vertebrate regeneration and repair*

- K9,11:677 where
K9 = Vertebrate Zoology
K9,11 = Cells of vertebrate animals. 11 is from Medicine See example 3.
K9,11:677 = Generation of vertebrate cells.

(10) *The world of the tiger*

- K97911:13 where
K97911 = Fissipedia—the whole of the cat family of mammals are represented.
 No further division is provided.
K97911:13 = Popular description of tigers

Self Check Exercise - 6

Construct class numbers for the following titles :

- a) *Virus infection to the eyes of wild animals*
- b) *Katabolism of sulphur in birds*
- c) *Nervous system of vertebrates*
- d) *Insect Atlas of India (1975)*
- e) *Russian Association of Systematic Zoologists (Moscow, 1965)*
- f) *Comparative study of physiology of aves and mammals*
- g) *International Council of bird conservation*

- Note: i) Write your answer in the space given below.
 ii) Check your answer with the answers given at the end of this unit.

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8.8 ANIMAL HUSBANDRY

Animal Husbandry or Veterinary Science is almost similar to Agriculture Class of Colon. The Personality Facet is based on group notation. The Energy Facet is a differential facet as in Agriculture. Numbers from Biology and Medicine Classes can be added wherever warranted.

The Facet Formula is

KX [P] : [E] [2P] : [2E] [3P]
Animals Problem Handling or Operation

[P] is Utility and Part Array as in the Main Class Agriculture. [2P] is based on [E] and given as a differential facet. Foci in [2E] [3P] can be applied taking the numbers from Agriculture Class. Few examples are worked out below.

(1) *Reproduction in farm animals*

Farm animals is multifocal and hence to be represented by broad number.

KX:67 where

KX = Animal Husbandry. In the Main Class KZ is to be replaced by KX as a change has been made, see page number 2.4.

KX:6 = Breeding of farm animals

KX:67 = Reproduction in farm animals. 67 is from the Biology Class.

(2) *Approved practices in poultry production*

KX351:7 where

KX351 = Fowl or poultry

KX351:7 = Poultry produce

(3) *Milk production and processing*

KX 31:71 where

KX 31 = Secretion of domestic animals

KX 31:7 = Producing secretion of domestic animals

KX 31:71 = Milk production

1 is from [2P] and is applicable when [P] is 31 and [E] is 7.

(4) *Veterinary medicine*

KX:96 where

KX = Animal husbandry or Veterinary Science

KX:96 = Pharmacognacy or Pharmacy, the science of preparing drugs and medicines.

(5) *Fundamentals of diary chemistry*

- KX311:7:(E) where
KX311 = Cow farming
KX311:7 = Produce of cow or diary farming.
 All diary products are classified under this number.
KX311:7:(E) = The chemistry of diary products is derived by Subject Device.

(6) *Storing of diary products*

- KX311:7:8 where
KX311:7 = Diary products as in example 5.
KX311:7:8 = 8 is for storage taken from [2E] [3P] of Agriculture Class.

(7) *How to raise and train a dachshund*

Dachshund is a breed of dog.

- KX541 D:8 where
KX541 = Dogs
KX541 D = Alphabetical Device for a breed of dog
KX541 D:8 = Training of dachshunds

(8) *Grass as a feed of the cattle*

- KX2:1 (J 251) where
KX2 = Cattle
KX2:1 = Cattle feed
KX2:1 (J 251) = For Feed, 1 of [E]
 Foci in [2P] is to be derived by subject Device, J251 is grass from
 Agriculture Class and a number derived by (SD) is to be put in parentheses.

(9) *Prevention of infectious diseases in poultry farming*

- KX351:42:5 where
KX351 = Poultry farming
KX351:4 = Diseases in poultry
KX351:42 = 2 is from [2P] under the Main Class Medicine.
 4 is disease and 42 is infectious disease.
KX351:42:5 = 5 is for preventive steps from Medicine. [2E] [3P] also
 from the Main Class Medicine

(10) *Veterinary surgery with particular reference to horses*

- KX442:4:7 where
KX442 = Horses
KX442:4 = Disease in horses
KX442:4:7 = Surgery of horses
 7 is for surgery under [2E] [3P] in the Main Class Medicine.
 You cannot take directly surgery without an appropriate number from [E].

Self Check Exercise - 7

Construct class numbers for the following titles :

- a) *Storing of starch feed for dogs*
- b) *Cold storage of buffalo cheese*
- c) *Directory of veterinary surgeons (Madras, 1981)*
- d) *Treatment of fever in domestic pigs*
- e) *How to raise and train a Palmararyian (dog)*

- Note: i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this unit.

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8.9 MEDICINE

Medicine is a study of human body to prevent and cure human diseases. The facet formula is

L [P] : [E] [2P] : [2E] [3P]
Organ of Problem Cause of
the body Disease Handling for 4 of [E]

The organ number 1 and its divisions are devoted to the regional divisions of the human body. Organ numbers 2 to 8 are devoted to the functional divisions. The functional organs within a regional organ can be indicated by Super-imposition Device, e.g. Nose tissues can be constructed L4-12 where L4 nose and 12 tissue are combined with a hyphen which becomes nose tissues.

Matter facet can be used if need be as [2M] and [3M]. When the Isolates are 523, 524 and 527 under [E], [2M] can be used, taking the substance foci from the Main Classes Chemistry or Technology. [3M] can be used for a particular medicine after [2E].

Based on the above Facet Formula few examples are worked out below :

(1) *Physiology of the tissues of small intestine*

L26-12:3 where

L26 = Small intestine

L26-12 = Tissues of small intestine.

Derived by Super-imposition Device.

L12-26 also means tissues of small intestine. In such cases where they give the same meaning a decision is to be taken under which class they will be more useful

L26-12:3 = Physiology of small intestine tissues.

(2) *Handbook of fundamental nursing techniques*

- L:4:1 where
L = Medicine
L:4 = Diseases
L:4:1 = Nursing. The Formula itself states that [2E] is applicable for 4 of [E].
 You cannot take nursing without an appropriate number form [E].
 The question of nursing arises only when there is disease.
 That is the basis of the handling facet.

(3) *Outlines of clinical diagnosis*

- L:4:31 where
L = Medicine
L:4 = Diseases
L:4:31 = Clinical diagnosis.
 The arguments put forward in example 2 are also applicable in this case.

(4) *A manual of family planning and contraceptive practices*

A distinction has been made between general medicine and female medicine. In the Main Class Medicine there are several Specials and Systems of Medicine. Colon Classification advocates to classify and arrange the books according to the category of class of persons. In the above title the subject is about birth control and hence classified under female medicine.

- L9F:394 where
L9F = Female medicine
L9F:394 = Birth control. There is a separate schedule of [E], applicable to L9F only.

(5) *The structure of the eye*

- L185:2 where
L185 = Eyes
L185:2 = Morphology of the eye.
 Other synonymous word for morphology are anatomy and structure.

(6) *Cancer and radiotherapy*

The meaning of the title is radiotherapy treatment for cancer. Cancer can effect any organ of the body and hence the Organ facet is multifocal.

- L:475:625 where
L = Medicine
L:4 = Disease
L:475 = 75 is from [2P] for malignant tumour or cancer
L:475:625 = 625 is for radiotherapy from [2E] [3P].

(7) Diet regulation for ulcer

Ulcer can effect different parts of the body but from the title, it can be assumed that in this case it is ulcer of the liver. Though the number is not enumerated it can be constructed as follows :

- L291:474:642 where
L291 = Liver
L291:4 = Disease of the liver
L291:474 = 74 for Ulcer form [2P]
L291:474:642 = Diet regulation for Ulcer of the liver. 642 regulation of diet is recommended as a treatment for the disease. General diet regulation will be 8 which is not applicable in this case.

(8) Preventive measures for heart attacks

- L32:4:5 where
L32 = Heart
L32:4 = Heart diseases
L32:4:5 = Prevention of heart diseases

(9) State control of alcoholic drinks

- L:52454 where
L:524 = State control of intoxicants
L:52454 = State control of alcoholic drinks
54 is form [P] of the Main Class Technology. See the Rules under 524.

(10) Arsenic injuction for low blood pressure

- L32:451:616;153 where
L32 = Heart
L32:4 = Heart disease
L32:451 - = Under functioning of heart. Low blood pressure is the state of the heart and it is not a disease of the blood. 51 is for under functioning from [2P]. Though this is not enumerated in the Schedule, the number is constructed on the basis of the Rules.
L32:451:616 = Treatment through injuction method
L32:451:616;153 = 153 is [3M], material used for injuction. 153 is from the substance facet, i.e., [P] of the Main Class Chemistry. This is an instance to show how depth classification is possible under CC.

(11) An introduction to medical genetics

In the schedules under Medicine no number has been provided for genetics. In Biology Class 6 under Energy facet is genetics and the same can be made applicable for Medicine also.

L:6 Medical genetics

The Main Class Medicine has several Specials and Systems and in Unit 3 we have discussed on this aspect. Below are worked out five examples on Specials and Systems.

(12) *Treatment of mumps in young children*

Colon Classification prefers to classify above type of documents under the class of persons. In this case under child medicine.

- L9C,2161:423:6 where
- L9C = Child medicine
- 2161 = Parotid gland from the Organ Facet.
 A comma should precede [P] in case of Specials and Systems.
- L9C,2161:4 = Disease in children effecting parotid gland
- L9C,2161:423 = 23 is virus from [2P]. The subject becomes a disease in children effecting parotid gland caused by virus, which is equal to mumps
- L9C,2161:423:6 = 6 is for treatment

(13) *Insomnia in old age*

- L9E,7:452 where
- L9E = Old age medicine
- L9E,7 = Nervous system in old people.
- L9E,7:4 = Disease of nervous system in old people.
- L9E,7:452 = 52 is for over functioning which means over functioning of the nervous system of old people, treated as insomnia.
 There is a print mistake in the Schedules.

(14) *Cure for insomnia is Ayurvedic medicine*

- LB,7:452:6 where
- LB = Ayurvedic medicine
- LB,7 = Nervous system in Ayurvedic
- LB,7:452 = Insomnia in Ayurvedic medicine
- LB,7:452:6 = 6 is for treatment or cure.

(15) *Cure of insomnia by Ayurvedic medicine in case of old people*

In this case we have both Special and System. In such cases Systems should be taken first followed by Special. While adding Special the digit for the Main class to be omitted and Special should precede with a comma. The number for the above title will be

- LB,9E,7:452:6 where
- LB = Ayurvedic medicine
- LB,9E = Old age - from Special L9E where L is omitted
- LB,9E,7 = 7 is organ facet for nervous system
- LB,9E,7:4 = 4 is diseases
- LB,9E,7:452 = A disease caused by over functioning of the nervous system-insomnia
- LB,9E,7:452:6 = 6 is for treatment or cure.

8.10 PHARMACOGNOSY

Pharmacognosy or the science of preparation of drugs has been treated as a separate Main class. It has been divided on canonical basis, but the schedules have not been worked out in detail. No facet formula has been provided for Pharmacy and the Personality Facet of Pharmacology has not been provided.

Few examples are worked out below :

(1) *History of pharmacy in Britain 1970*

- LX8v56'N7 where
- LX = Pharmacognosy. Note LZ has been replaced by LX, refer page No. 2.4
- LX8 = Pharmacy
- LX8v = v is for history, Common Isolate
- LX8v56 = History of pharmacy in Britain
- LX8v56'N7 = History of pharmacy in Britain brought up to 1970s.

(2) *British Pharmacopoeia*

Pharmacopoeia is a book or list of drugs with directions for their preparation.

- LX556,1 where
- LX5 = Pharmacopoeia. The canonical class.
- LX556 = 56 is Great Britain under LX5, [P] is derived from Space Isolate
- LX556,1 = 1 is from [P2] which stands for official list of drugs.

(3) *Drugs effecting respiratory system*

- LX3:2(L4) where
- LX3 = Pharmacology
- LX3:2 = Stimulation
- LX3:2(L4) = L4 is from [2P] and derived by (SD) as stated in the Rules.
L4 is respiratory system.

(4) *Your heart and vitamin E*

- LX3975E:2(L32) where
- LX3 = Pharmacology
- LX3975E = 975E is for vitamin in the [P] of the Main Class Chemistry.
This is done on the basis of Mnemonic Device.
In the Rules [P] is not enumerated and obviously it stands for substance.
- LX3975E:2 = There is no clear cut enumeration in [E] and which gives
meaning to the nearest word has been selected.
- LX3975E:2(L32) = L32 is for heart and derived by (SD).

(5) *Indian Pharmaceutical Association (1932)*

- LX8:44,g,9N3 where
LX8 = Pharmacy
LX8.44 = 44 is India
LX8.44,g = A Society of Pharmacy.
 g is from Personality Posteriorising Common Isolate.
LX8.44,g9N3 = A pharmaceutical society established in India in the 1930s. This is equal to
 Indian Pharmaceutical Association established in the 1930s.
 It is not necessary to give 1932 when there is no other organization
 established in the 1930s.

Self Check Exercise - 9

Construct class numbers for the following titles :

- a) *Stimulating effect of Glucose*
- b) *British Pharmacopoeia*
- c) *Official list of Swiss drugs*
- d) *Eastern Pharmacist (started in 1978 in India)*
- e) *American Pharmaceutical Association (1945)*

Note: i) Write your answer in the space given below.
 ii) Check your answer with the answers given at the end of this unit.

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8.11 SUMMING UP

In this unit we have explained you how to classify documents in the main classes belonging to biosciences. The main classes covered in this unit are biology, geology, mining, botany, agriculture, zoology, animal husbandry, medicine and pharmacognosy. There are few things common to some of these main classes. Problem facet for G, I and K are common. Hence they are given at Biology and not repeated at other main classes.

8.12 ANSWERS TO SELF CHECK EXERCISES

1. a) G4
b) G113:1995
c) G95531.8
d) G:33E;982
e) G:33;92Z2p58,N88
f) G:660bL
g) G:5.95
h) G:12.594
i) G110w2:2
j) G95124:527
2. a) H1921:8
b) H23:155.41
c) H69797A3
d) H6961.44.g7N'A2
e) H791.1(Q7)
f) H686'A4
g) H198:164.52
h) H2m42,N8
i) H55.4.g7H
j) H7210.44.e5G
3. a) HX551:55
b) HX91:2
c) HX161:13
d) HX113,8:5
e) HX118,1:11.4413.K
4. a) I5:67
b) I5:433
c) I5,16.4498.g7
d) I:33;150
e) I831:8
f) I.44.g,9N
g) Im44,N5
h) I8,1320v3
5. a) J385:78:5
b) J9D,482:24
c) J9S,37943:7:97.J3
d) J341,13
e) J311:438:55
f) J674:243:8
g) J387am56,N

6. a) K9954,185:423
 b) K96:332;161
 c) K9,7
 d) K86:12.44fN7
 e) K:11.56,g,9N
 f) K960v7:3
 g) K96:527.1,g,9N
7. a) KX541:1(E6892):8
 b) KX312:78:84
 c) KX:4:7n4411,N8
 d) KX334:414:6
 e) KX541P:8
8. a) L12-185:45
 b) L9X:4:97
 c) L45:47257:3253
 d) L:4:616;41171
 e) LD,9C,81:483:6
 f) L41:4:77
 g) LM,9E,192:485:6
 h) LM,32:4:6
9. a) LX36813:2
 b) LX556,1
 c) LX5594,1
 d) LX8m44,N8
 e) LX8.73,g,9N4

8.13 ASSIGNMENT

Classify the following titles according to CC6.

- a) *Geology of the coastal plain of Maharashtra*
- b) *A short history of Kolar gold fields*
- c) *Use of underground vehicle in coal mines*
- d) *A genetic study of birds*
- e) *Complete handbook of bee keeping*
- f) *Pet cats: their care and handling*
- g) *Gymnosperms: structure and evolution*
- h) *Grape pests in California*
- i) *Parrakeets, their care and breeding*
- j) *A book of personal hygiene*
- k) *Meningitis in children*
- l) *Ayurvedic medicine for hepatitis*

UNIT-9 : EXAMPLES FROM MAIN CLASSES: HUMANITIES

Contents :

- 9.0 Aims and Objectives
- 9.1 Introduction
- 9.2 Fine Arts
- 9.3 Literature
- 9.4 Linguistics
- 9.5 Religion
- 9.6 Philosophy
- 9.7 Psychology
- 9.8 Summing Up
- 9.9 Answers to Self Check Exercises
- 9.10 Assignment

9.0 AIMS AND OBJECTIVES

In this unit we introduce you to the schedules of the main classes belonging to Humanities. This unit covers the main classes Fine Arts, Literature, Linguistics, Religion, Philosophy and Psychology.

By studying this unit you should be able to

- explain the facet formula for each of the main classes covered;
- describe the structure of schedules in each of these main classes; and
- construct class numbers for documents with subjects belonging to these main classes.

9.1 INTRODUCTION

The progression of main classes in Colon Classification after ascending in Natural Sciences and reaches its peak at Spiritual Experience and Mysticism. Then progression descends to Fine Arts, Literature and Languages, where greater intellection and less intuition is found.

There are six main classes covered in this unit. In the main classes Literature and Linguistics the first level [P] is to be brought from Language divisions in Chapter 5.

9.2 FINE ARTS

The Main Class Fine Arts has initially been divided into canonical classes and the facet formulas are applicable to the canonical classes.

NA	Architecture	NM	Graphic Art
NB	Town Planning	NN	Engraving
NC	Plastic Art	NP	Drawing
ND	Sculpture	NQ	Painting
NE	Lapidary Art	NR	Music
NF	Numismatic Art	NS	Dance
NG	Mould Art	NT	Theatre
NH	Ceramic Art	NU	Puppet Play
NJ	Inlay Art	NV	Shadow Play
NL	Embroidery	NW	Cinema
NK	Toy Making	NX	Talkie

However one factor is common to majority of the canonical classes, what is called 'style'. Each country has its own tradition and developed its own style of fine arts, e.g. style of architecture, style of painting, style of music etc. Even within a country there may be again different styles, or also we call different schools of painting or different schools of dance. These are some of the common things we hear everyday. Hence in the facet formulas [P] and [P2] stand for 'Style' and this is made up of geographical number (Space Isolate) and Chronological number (Time Isolate). In all other cases the facets have been enumerated or directions are given how to sharpen an isolate.

Facet Formula for Architecture.

NA	[P],	[P2]	[P3],	[P4]	:	[E]
Style	Derived	Derived	Utility	Part		Technique
	by (GD)		by (CD)			

Please note between [P2] and [P3] no comma has been used because [P2] always is a Roman alphabet and [P3] an arabic numeral and hence there is no confusion and saves a digit. Below are worked out few examples.

(1) *Hellenic architecture; its genesis and growth*

Hellenic architecture is early Greek architecture and a ready made number is provided.

NA51,C		where
NA	=	Architecture
NA51	=	51 is Greece from Space Isolate
NA51,C	=	C is for Ancient Greece from Time Isolate (1 to 999 BC)

(2) *Architecture of South Indian temples*

- NA441,8(Q2) where
NA441 = Dravidian. 441 is South India also.
NA441,8(A) = Architecture of other South Indian buildings.
Under 8(A) directions are given to coin the buildings by Subject Device.
NA441,8(Q2) = Q2 is for Hinduism. 8(Q2) Hindu religious building or temples.
The meaning of the full number will be architecture of South Indian temples.
(Architecture of Indian Hindu Religions buildings)

(3) *Architecture of pillars in Jain temples*

- NA44,E8(Q3),45 where
NA44,E = Jain Architecture. This is enumerated. 44 is [P] and E is [P2].
E is for 11th century.
NA44,E8(Q3) = 8(Q3) is [P3] for Religious buildings of the Jains.
NA44,E8(Q3),45 = 45 is from [P4] for pillars. Please note that without [P3] there is likely
to cause some confusion in the construction of the numbers.

(4) *An introduction to the study of landscape design*

- NB,5,3:3 where
NB = Town planning
NB,5 = City planning, this is from [P3]. This being a general study,
[P] and [P2] are absent. It is only presumed that the landscape
design pertains to a city.
NB,5,3 = 3 is from [P4] for landscape. Please note if you take directly [P4] without
the number for city from [P3], the number becomes NB,3 which means
Town Planning of a town, the 3 is from [P3] and not from [P4].
NB,5,3:3 = The last 3 is for plan (design) and taken as given for Energy.Facet
under Architecture.

(5) *Italian sculpture of the Renaissance*

As stated earlier [P] and [P2] are same for all the canonical classes under Fine Arts. Only illustrative numbers are worked out under Architecture. NA5,J is given for Renaissance Architecture. In this case 5 is for Europe. On that basis the number for the above title is

- ND52,J Where
ND = Sculpture
ND52 = Italian Sculpture
ND52,J = J is for 16th century or Renaissance period

(6) *Design of the Buddhist bronze idols*

This is better known as iconography. It is a study of the pictures and idols of gods. The canonical class is Sculpture.

- ND44,C8(Q4); 5:4 where
ND44 = Indian Sculpture
ND44,C = Buddhist Sculpture
ND44,C8(Q4) = 8(Q4) Buddhist iconography.
 In the Schedules it is given as 9(Q) that is a print mistake.
ND44,C8(Q4);5 = 5 is bronze from the [M] facet
ND44,C8(Q4);5:4 = The last 4 is for design [E]

(7) *Water Colour painting*

- NQ:3 where
NQ = Painting
NQ:3 = Water colour painting. All other facets are absent.

(8) *Water colour landscape paintings*

- NQ,3:3 where
NQ,3 = Landscape painting. 3 is from [P3] as given for Sculpture.
NQ,3:3 = Water colour landscape painting

(9) *Italian Renaissance water colour landscape paintings on canvas*

- NQ52,J3;7:3 where
NQ52,J = Italian Renaissance painting (see example 5)
NQ52,J3 = 3 for landscape as done in example 8. It is from [P3] facet and
 no connecting symbol is required as per the Facet Formula.
NQ53,J3;7 = 7 is for canvas from [M]
NQ52,J3;7:3 = Last 3 is for water colour. Cocxtensive number has been derived.

(10) *Carnatic vocal music*

- NR441;91 where
NR441 = South Indian music
NR441;91 = South Indian vocal music. Vocal has been made here as Material.
 South Indian music is treated here as carnatic music.

(11) *Projection of crime in Indian films*

- NW440ay:45 where
NW = Cinema
NW44 = Indian films
NW440a = 0a is general phase device
NW440aY:45 = Y:45 is for Crime from the Sociology Class.
 The meaning of the class number will be Indian films and crime.

(12) *A treatise on Bharatnatyam*

- NS44x1,1 where
NS = Dance
NS44 = Indian Dance
NS44x1,1 = Classical Indian Dance written by Bharatamuni

(13) *Silver coins of the Moghul period*

- ND44,J71;615 where
ND44,J = Moghul Sculpture
ND44,J71 = Moghul coins
ND44,J71;615 = Moghul coins made out of other metals.
 In depth classification 6 can be further divided. 615 is silver coins.
 15 is taken from substance facet of Chemistry.

(14) *Shakespearean theatre*

- NT561,J where
NT = Theatre
NT561 = England
NT561,J = J is for 16th Century.
 Theatre at the time of the Tudors, which is also Shakespeare's time

(15) *A biographical sketch of Leonardo da Vinci (1452-1519)*

- NQ52,Jw152 where
NQ52 = Italian painting
NQ52,J = Leonardo da Vinci was an artist, musician, engineer and natural scientist
 but better known as a painter of the Renaissance period.

Self Check Exercise - 1

Construct class numbers for the following titles :

- a) *Models of secondary schools in modern India*
- b) *Town planning in India Today*
- c) *Location of public baths in Mughal towns*
- d) *Metropolitan theatre plan*
- e) *Design of Terracotta human figures in India.*
- f) *Provisions of parks in metropolitan cities in India.*
- g) *Modelling moon in ivory*
- h) *Notation in Indian vocal music*
- i) *Life of Ravi Shankar*
- j) *International Association of Art (founded 1964)*

alphabet of the author forms the author number. In the collection of works by different authors, the youngest author's year of birth to be given only by two digits, i.e., the century and the decade.

Work number is to be determined and the number to be given by group notation. Refer to unit No. 2 where this has been explained.

Few examples are worked out below.

(1) *The art of writing one act plays.*

Facet Formula O [P], [P2] [P3], [P4]

The book is in English but the subject is not about English literature. It applies to all the literatures and hence the literature facet is multifocal and hence to be omitted. The form of literature under discussion is drama and hence the number will be

O,2

In these types of works author number has no significance and hence [P3] and [P4] need not be worked out. Colon has not given a separate number for one act plays and hence it is to be presented by drama only.

(2) *Galsworthy's (1867-1933) plays; a critical survey*

O111,2M67:g where

O111 = English literature

O111,2 = English plays

O111,2M67 = Plays of Galsworthy, year of birth 1867 converted by Time Isolate

O111,2M67:g = g is critical studies from Posteriorising Energy Common Isolate.

(3) *Mulk Raj Anand : Morning face (His 17th work)*

O111,3N05,31 where

O111 = English literature

O111,3 = English fiction

C111,3N05 = A novelist born in the year 1905

O111,3N05,31 = 17th Work (3rd group 1st work)

O111,3N05,M = work number represented by alphabetical device.

It is usually not possible to know the chronology of a work number and hence the alternative given by Ranganathan is to give the work number by alphabetical device.

(4) *Thomas Carlyle (1795-1881) : Heroes and hero worship*

O111,6L95,H where

O111 = English literature

O111,6 = Other form of prose

O111,6L95 = Year of birth of the author, 1795 for Carlyle

O111,6L95,H = Work number represented by alphabetical device.

If in the library you are giving work number by group notation, it is to be ascertained the chronological order of the work number.

(5) *Geography of Kalidasa*

- O15,2D40:g (U) where
O15 = Sanskrit literature
O15,2 = Sanskrit drama. The book is a study of Kalidasa's knowledge of geography and written in prose form, but to be classified under the well known form of the author concerned.
O15,2D40 = D 40 is the approximate date of Kalidasa. D is for 1-999 AD, 40 is for 400 year AD.
O15,2D40:g = Criticism or study of Kalidasa's plays.
O15,2D40:g (U) = g can be further sharpened by (SD). U is for geography.

(6) *A study of Ghalib's (1796-1869) love poems*

- O168,1L96:g(S:55) where
O168 = Urdu literature
O168,1 = Urdu poetry
O168,1L96 = Urdu poetry of an author born in the year 1796
O168,1L96:g = Criticism or study of Ghalib's poetry
O168,1L96:g(S:55) = Treatment of love in Ghalib's poems

(7) *History of Telugu literature*

- O35v where
O35 = Telugu literature
O35v = History of Telugu literature. In such cases form and author are absent.

(8) *Influence of religion on Marathi literature*

- O155OgQ where
O155 = Marathi literature
O155Og = Og for influencing phase
O155OgQ = Q for Religion

(9) *Letters of William Wordsworth (1770-1850)*

Letters go under biography of the person concerned.

- O111,1L70w,4 where
O111 = English literature
O111,1 = English poet
O111,1L70 = L70 is for 1770, the year Wordsworth was born
O111,1L70w = w is CI is for biography.
In case of literature class it is not necessary to further sharpen it by date.
O111,1L70w,4 = 4 shows the source of biography (here poet's letters)

(10) *A Collection of Japanese love poems*

- O42,1x(S:55)N2 where
O42 = Japanese literature derived by (GD)
O42,1 = Japanese poetry
O42,1x = Collection of Japanese poetry
O42,1x (S:55) = Collection of Japanese love poetry
O42,1x (S:55)N2 = The Youngest poet born in 1921 but to be shown only by two digits

Self Check Exercise - 2

Construct class number for the following titles :

- a) *Abhigyan Shakuntalam* (First work of Kalidas)
- b) *Good Earth*: Pearl S Buck (born in 1892; 10th work)
- c) *Godan* : Prem Chand (born 1880; 7th work)
- d) *History of Urdu literature*
- e) *Influence of religion on Sanskrit literature*
- f) *A study of Ghalib's love poems* (1796-1869)
- g) R K Narayan : *The Guide* (born in 1906; 12th work)
- h) *Collection of English poetry* (Youngest author born in 1946)

Note: i) Write your answers in the space given below.
ii) Check your answer with the answers given at the end of this unit.

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9.4 LINGUISTICS

Linguistics is the science of languages.

The Facet Formula for Linguistics is

P [P],	[P2]	[P3]	:	[E]	[2P]
Language	Variant & Stage	Element		Problem	

Language number is to be taken from the Language Isolate. Usually in the development of a Language there are different stages like old Telugu and modern Telugu. These can be ascertained from the history of the languages concerned and the century of the commencement of the stage should be used as the epoch. Some worked out numbers are given in the schedule.

Variant number consists of dialect, slang and jargon. This can be further expanded when warranted by the addition of Geographical Isolate.

Below are worked out few examples :

(1) *Telugu dialect of Vijayawada.*

P35,9D4416.V where
P35 = Telugu language
P35,9D = Telugu dialect
P35,9D4416 = Telugu dialect - Andhra Pradesh
P35,9D4416.V = V is for Vijayawada, second level of Space

(2) *Modern American Jargon*

P111,J,9J73 where
P111 = English language
P111,J = Modern English
P111,J,9J = Modern English Jargon
P111,J,9J73 = Modern English Jargon in U.S.A.
When both Stage and Variant facets are to be represented the variant number should follow the stage number and a comma should separate them.

(3) *Modern French phonetics*

P122,H:1 where
P122 = French language
P122,H = Modern French language
P122,H:1 = French phonetics

(4) *Telugu dictionary*

- P35:4k where
P35 = Telugu language
P35:4 = Meaning given to Telugu words.
P35:4k = k is from Common Isolate for dictionary

(5) *Telugu English dictionary*

P35:4k

In case of bilingual dictionaries that part of the language in which the meaning is given forms part of the Book Number. Please note that the class number in case of examples 4 and 5 are the same and the differentiation is done only under Book Number. As you are aware that the Call Number consists of Class Number and Book Number. In this case let us suppose the book is published in 1959, the Call Number will be

- P35:4k where
111J9
P35:4k = Telugu dictionary
P35:4k = Telugu English dictionary.
111 111 is for English language and given as part of the Book Number
P35:4k = J9 is for the year 1959. There is a separate table, refer page No. 1.13 of CC.
111J9

(6) *Dictionary of psychology*

S:(P111:4)k

In case of subject dictionaries they are to be classified under the concerned subjects, and dictionary number to be derived by subject device. The interpretation of the above number is

- S = Psychology
S:(P111:4) = P111 is English language and P111:4 is for meaning given
S:(P111:4)k = k is Common Isolate for dictionary

(7) *Grammar of Vedic Sanskrit*

- P15,A:2 where
P15 = Sanskrit language
P15,A = Vedic Sanskrit. A is stage of the language
P15,A:2 = Morphology of the language which is equivalent to grammar

(8) *Composition of ancient Tamil words*

- P31,A3:291 where
P31 = Tamil language
P31,A = Ancient Tamil
P31,A3 = Ancient Tamil words.
3 is from [P3] No comma is necessary between [P2] and [P3] as [P2]
is given only by one Roman alphabet.
P31,A3:291 = Composition of ancient Tamil words.

Major religions of the world are enumerated. Those which are not enumerated can be derived by (GD) or (CD). Many religions have subjects and those which are not enumerated to be derived by (CD).

Examples :

(1) Teachings of the Buddha

- Q4:51 where
- Q4 = Buddhism
- Q4:51 = Preachings in Buddhism

(2) Difference between Mahayana and Hinayana Buddhism

- Q410w2 where
- Q41 = Hinayana Buddhism
- Q410w = 0w is for intra array difference relation
In case of difference phase relation as per the Rules the earlier isolate to be taken first.
- Q410w2 = 2 is 42 under [P] of the Main Class Religion which stands for Mahayana Buddhism.
Hinayana and Mahayana being from the same array it is treated as intra-array relation
and 4 is omitted in case of Mahayana Buddhism

(3) Influence of Hinduism on Jainism

This subject is another case of phase relation. First you have to decide which is to be taken first, Hinduism or Jainism. If you analyse the title, you can note that Hinduism is an influencing factor and as such to be taken later. Secondly both Jainism and Hinduism are from the same facet and the relation is intra facet relation. The number will be

- Q30r2 where
- Q3 = Jainism
- Q30r = 0r are connecting digits for intra facet influencing phase
- Q30r2 = 2 is for Hinduism from Q2

(4) Hindu festivals

- Q2:457 where
- Q2 = Hinduism
- Q2:457 = Hindu festivals. A particular festival can be individualised by Alphabetical Device.
Though no rule is given, the Classifier has the autonomy to further sharpen a given focus.

(5) New Testament

- Q6:23 where
- Q6 = Christianity
- Q6:2 = Christian scripture
- Q6:23 = Each religion has several scriptures and these are to be worked out by the Favoured Category Device. In Part 3 of Colon many such numbers have been worked out.

(6) *Pilgrimage to Mecca*

Q7:4198.461.M where

Q7 = Islam

Q7:4198 = Pilgrimage

Q7:4198.461 = 461 is Arabia. In Colon Geographical Isolate list has become outdated as many nations which have come into being after the publication of Colon Classification are to be represented and whole Geographical Isolate list needs revision.

Q7:4198.461.M = M is for Mecca, second level of Space

(7) *Religion in ancient Rome*

Q852 where

Q8 = Other religions

Q852 = 52 is from Geographical Isolate for Italy.

(8) *Studies in the Brahmanas*

Brahmanas are related to Vedic religion and [P] is Q1.

Q1:22 where

Q1 = Vedic religion

Q1:22 = Brahmanas.

There is no ambiguity as 22 is a differential facet applicable only to Q1.

(9) *Sthala purana of Tirupati*

Q2:3816.T where

Q2 = Hinduism

Q2:38 = Sthala purana

Q2:3816 = 16 is from Space Isolate from 4416 (Andhra Pradesh).

Under the Rules it is stated when the subject is religious history of the place in India (the Indian number 44 to be omitted and add the rest).

Q2:3816.T = T is for second level of Space for Tirupathi.

(10) *Religious institutions of Roman Catholics in India*

Q62:6.44 where

Q62 = Roman Catholics

Q62:6 = Religious institutions of Roman Catholics

Q62:6.44 = Religious institutions of Roman Catholics in India

Self Check Exercise - 4

Construct class numbers for the following titles:

- a) *Hindu festivals*
- b) *Pilgrimage to Mecca*
- c) *Sthalapurana of Srirangam*
- d) *The Prayers of Arya Samaj*
- e) *Sri Guru Granth Sahib*

- Note: i) Write your answers in the space given below.
 ii) Check your answer with the answer given at the end of this unit.

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9.6 PHILOSOPHY

Philosophy is the study of the nature and meaning of existence, reality, knowledge, goodness, etc.

Philosophy is first divided on canonical basis and hence the facet formulas are applicable to a canonical class. R1 Logic, R2 Epistemology are enumerated without any facet formulas. R5 Aesthetics and R8 other systems of philosophy are not enumerated. R6 is for Indian Philosophy (for us the favoured system). Indian Philosophy has been minutely subdivided in Part 3 of Colon.

Examples :

(1) Deductive logic and psychology

This is general relation between logic and psychology

- R120aS where
- R12 = Deductive logic
- R120a = Connecting digits for general phase relation
- R120aS = S for the Main Class Psychology

(2) Ethics of marriage

- R4117 where
- R4 = Ethics
- R4217 = 217 is [P] for R4, i.e., ethics of marriage

(3) Ethics in the medical profession

- R44(L) where
- R4 = Ethics
- R44 = Professional ethics
- R44(L) = L for Medicine

(4) *Ethics for Cricketers*

- R462141 where
R4 = Ethics
R46 = Ethics of leisure and amusement
R462141 = 2141 is taken from MY (under Useful Arts) which stands for cricket

(5) *Philosophy of Kant*

- R855xL24 where
R8 = Other systems of philosophy
R855 = German philosophy; 8 is further divided by (GD)
R855xL24 = Philosophy of a German philosopher born in the year 1724 (Immanuel Kant)
 x is for classic device

(6) *Outline of Hindu philosophy*

- R61 where
R6 = Indian Philosophy
R61 = Hindu Philosophy

(7) *Presumptions in Nyaya philosophy*

- R62,215 where
R6 = Hindu philosophy
R62 = Nyaya philosophy
R62,215 = 215 is from R215 under Epistemology 215 is presumption.
 Under the Rules [P2] is to be taken from R. See page No. 1.111

(8) *Presumption in Advaita philosophy*

- R66,9215 where
R6 = Hindu philosophy
R66 = Advaita philosophy
R66,9 = 9 is sectorising digit (previously called Octave digit)
 The rule is when [P] is R65 to R6893,
 the enumerated numbers under R to be used as sector digits.
R66,9215 = 215 is as explained in example 7

(9) *Brahmasutra-Bhasya*

- R66,5 where
R6 = Hindu philosophy
R66 = Advaita philosophy
R66,5 = Brahmasutra
 To apply Foci in [P2] to R65 to R6893 one has to know the appropriate foci in [P]

(10) *A short history of Chinese philosophy*

- R841v where
- R8 = Other systems of philosophy
- R841 = 41 is from Space Isolate. R8 is divided by (GD)
- R841v = v is Common Isolate for history. It is not necessary to sharpen v further.

Self Check Exercise - 5

Construct class numbers for the following titles :

- a) *Realistic philosophy of Jains*
- b) *Ethics in library profession*
- c) *Family ethics of royalty*
- d) *Treatment of animals according to Jains*
- e) *Ethics of wrestling*

Note: i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this unit.

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9.7 PSYCHOLOGY

Psychology is the science of human behaviour. It is concerned with the study of mind and behaviour, attitudes etc.

Rules for Psychology are simple and the isolates are enumerated. Psychology has the amplified class of System and such of those subjects where the emphasis is on a particular school of thought, the documents are to be first classified under System. The facet formula is

S [P] : [E] [2P]
Entity Problem

Under entity the connotation of the term child is a young person of either sex below the age of puberty. Child psychology can be represented by S1.

Examples :

(1) *Adolescent personality*

S2:7 where
S = Psychology
S2 = Adolescent
S2:7 = Adolescent personality

(2) *Anxiety in old age*

S38:56 where
S38 = Old age
S38:56 = Anxiety in old age

(3) *A psychological study of the brain reaction of genius persons*

S61:12 where
S61 = Genius persons
S61:1 = Nervous reaction-of genius persons
S61:12 = 2 is from 72 for brain in the organ facet of Medicine

(4) *Fear in blind infant children*

S13-68:526 where
S13 = Infants
S13-68 = Blind infants, derived by Super-imposition Device
S13-68:526 = Fear in blind infants

(5) *Fear in blind infant boys*

S13-21-68:526 where
S13 = Infants
S13-21 = Infant boys. Infants can be both the sexes and hence individualised by Super-imposition Device
S13-21-68 = Blind infant boys. Note the adaptability of the Device. Still it is one single isolate.
S13-21-68:526 = Fear in blind infant boys.

(6) *Psychoanalytic study of dreams*

Psychoanalytic is a system of psychology and hence to be classified first under the System.

SM9:811 where
SM9 = Psychoanalytic
SM9:811 = Psychoanalytic of dreams

(7) *Psychoanalysis of dreams of children*

- SM9,1:811 where
- SM9 = Psychoanalytic
- SM9,1 = Psychoanalysis of children.
1 from [P] and as per Rules a comma should precede child.
- SM9,1:811 = Psychoanalytic study of the dreams of children

(8) *A psychological study of Cubans*

- S77927 where
- S7 = Psychology of a race
- S77927 = Race divided by (GD) 7927 is for Cuba

(9) *Psychology in industry*

- S0aX8(A) where
- S = Psychology
- S0a = Phase device - general relation
- S0aX8(A) = X8 is industry.
Psychology in relation with industry; it is also called industrial psychology.

(10) *Handbook of research in child development*

- S1:f where
- S1 = Child psychology
- S1:f = f is Posteriorising Energy Common Isolate for research

Self Check Exercise - 6

Construct class numbers for the following titles :

- a) *Memory of children*
- b) *Psychotherapy of mentally sick women*
- c) *Emotion of old people according to behaviourism*
- d) *Emotional study of deaf women*
- e) *Indian Journal of Experimental psychology (1967-)*
- f) *Hindu social psychology*

Note: i) Write your answers in the space given below.
ii) Check your answer with the answers given at the end of this unit.

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9.8 SUMMING UP

In this unit we have introduced to the main classes in Humanities. The generic class Humanities constitutes the classes N to S (i.e., Fine Arts, Literature, Linguistics, Religion, Philosophy and Psychology). The examples given under various classes of this unit clearly demonstrate the application of different postulates and principles for facet analysis and synthesis. The facet formula for the main class 'O Literature' contains four levels in Personality facet, where [P3] Author Number is formed by (CD) and Work Number [P4] is formed by group notation. (CD), (GD) and other devices are also used extensively in the main classes of Humanities. Special rules of using the variant number and stage number are provided in the main classes 'P Linguistics'.

9.9 ANSWERS TO SELF CHECK EXERCISES

1. a) NA44,N8(T2):8
b) NB44,N
c) NB44,J3;62:1
d) NB,7,671:3
e) ND44,N1;7:4
f) NB44,N7,66
g) ND,N282:8:8
h) NR44,N18:91
i) NR44wN20
j) N1,g,9N64
2. a) O15,2D40,1
b) O0111,3M92,22
c) O152,3M80,17
d) O168v
e) O150gQ
f) O168,1L96:g(S:55)
g) O111,3N06,24
h) O111,1xN46
3. a) P152,D:1
b) P168:58
c) P35,9D.4416.G
d) P122,9(4)
e) P153:4k
4. a) Q2:457
b) Q7:4198.461.M
c) Q2:3816.S
d) Q29M8:4146
e) Q84412:2

5. a) R325,(Q3)
b) R44,(2)
c) R42,(Y48)
d) R47,(Q3)
e) R46245

6. a) S1:43
b) S55-64:86
c) SN1,38:52
d) S55-67:52
e) SMm44,N6
f) S873(Q2)

9.10 ASSIGNMENT

Classify the following titles according to CC6.

- a) *Architecture of Moghal tombs*
b) *Manipuri dance style*
c) *A critical study of Henrik Ibsen's works*
d) *Nature in Wordsworth's poetry (born in 1770)*
e) *Urdu dialect of Kurnool*
f) *Comparative study of Digambaras and Svetambaras*
g) *Ethics for politicians*
h) *Indian philosophy since independence, 1979*
i) *Psychology of foster children of pre-school age*
j) *Psychoanalysis of dreams of women*

UNIT-10 : EXAMPLES FROM MAIN CLASSES: SOCIAL SCIENCES

Contents

- 10.0 Aims and Objectives
- 10.1 Introduction
- 10.2 Education
- 10.3 Geography
- 10.4 History
- 10.5 Political Science
- 10.6 Economics
- 10.7 Sociology
- 10.8 Law
- 10.9 Summing Up
- 10.10 Answers to Self Check Exercises
- 10.11 Assignment

10.0 AIMS AND OBJECTIVES

In this unit we introduce you to the main classes in the Social Sciences. According to Colon Classification the generic class Social Sciences constitutes the classes T to Z (i.e., Education, Geography, History, Political Science, Economics, Sociology and Law).

By studying this unit you should be able to

- explain the facet formula for each of the main classes in Social Sciences;
- describe the structure of schedules in these main classes; and
- construct class numbers for documents with subject belonging to these main classes.

10.1 INTRODUCTION

In the sequence of main classes in Colon Classification, Humanities is followed by Social Sciences. Education, Geography, History, Political Science, Economics, Sociology, Social Work, and Law are included in Social Sciences. The Greek letter Σ (Sigma) is assigned to Social Sciences and designated it as Partially Comprehensive class. The main class YX Social Work is not provided any schedules.

Colon Classification treated Social sciences on a different footing. Subjects which generally treated as Political Science and Public Administration are part of the main class History. Likewise Commerce and Management are treated as part of Economics. There are some changes introduced in the reprint edition of CC6. These changes are observed in the schedules of Education and History (V:19 Foreign Policy as Host class). You have to take these changes into account (as given in the Annexure) while classifying the documents.

10.2 EDUCATION

Education is concerned with the technique of teaching and learning.

There are few similarities with Psychology and Education Classes. The facet [P] are mnemonic to each other. In Education also there are Systems. The facet formula is

T [P] : [E] [2P], [2P2]
Education Problem For 2,3&5 of Method
[E] to be
derived by (SD)

There are differential facets for 3,4 and 5 of [E]

Examples

(1) *Education of minority people in India*

T9(Y58).44 where

T9 = Education of other classes

T9(Y58) = Y58 is derived by (SD). Minority class from Sociology

T9(Y58).44 = Education of minority class in India

(2) *Story method of teaching at the Kindergarten schools*

T1:393 where

T1 = Education of children.

T1:3 = Teaching technique

T1:393 = 93 is from [2P2] applicable to 3.
No comma between 3 and 93 is necessary as stated in the Rules.

(3) *Need to teach India's freedom struggle at the secondary level of Education*

T2:2(V44:51) where

T2 = Secondary education

T2:2 = Secondary school level curriculum.
Meaning of the title is to include the subject of freedom struggle as part of the syllabus.

T2:2(V44:51) = V44:51 is India's freedom struggle. It is [2P] and derived by (SD).

(4) *Need for examination reform at the university level*

T4:55 where

T4 = University education

T4:5 = Educational measurement

T4:55 = Examinations at the University level education.
Note that [2P2] 5 will not mean examination unless 5 from [E] is taken.

(5) *Elementary school inspection*

- T15:89S where
T15 = Elementary education
T15:8 = Management of elementary education
T15:89S = Under 8 Management you are directed to take further numbers as given under [E] of Economics. 89S is inspection in the Economics class.

(6) *Teaching technique of law through case study method*

- T:3(Z),7 where
T = Education
T:3 = Teaching technique
T:3(Z) = Teaching technique of law. Law is derived by (SD)
T:3(Z),7 = 7 is from [2P2] case study applicable to 3 of [E]

(7) *Financing higher education in India*

- T4:8D where
T4 = University education
T4:8D = Finance for higher education. 8D is from [E] of Economics

(8) *Teaching science at secondary level through videos*

- T2:3(A),15 where
T2 = Secondary education
T2:3 = Teaching technique at secondary school
T2:3(A) = Teaching science at secondary school
T2:2(A),15 = Teaching science through visual method (Videos) at secondary school

(9) *Hostel life in Indian Universities*

- T4:72.44 where
T4 = University education
T4:72 = Hostel in Universities
T4:72.44 = Hostel in Universities in India

(10) *Basic education to backward class students*

- TN3,7 where
TN3 = Basic Education. It is a System of Education.
TN3,7 = 7 is from [P] for backward class. A comma has to precede as per Rules

Self Check Exercise - 2

Construct class numbers for the following titles:

- a) *Rural education in India in 1936*
- b) *Kindergarten elementary school*
- c) *Wardha secondary school hostels*
- d) *Merill-Palmer intelligence test*

- e) *Influence of curriculum on teaching technique*
- f) *Teaching of History in elementary schools through study method*
- g) *Hostel life of female students in American universities*
- h) *Report of the education commission (1978)*

Note: i) Write your answer in the space given below.
 ii) Check your answer with the answers given at the end of this unit.

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10.3 GEOGRAPHY.

Geography is the science which has for its objects the description of the earth's surface; treating of its form and physical features; its natural and political divisions; the climate productions; populations, etc. of the various countries.

The facet formula and isolates of geography are simple and actually there is only one facet in geography, i.e., Personality. Ranganathan has stated in the Rules that the Schedules are to be worked out and Energy facet may have to be added which he states will be given in the fascicule of depth classification. The facet formula is

$$U \quad [P] \quad .[S] \quad [T]$$

Geography

Space and Time being Common isolate, there is no necessity of showing in the formula, they can be added when warranted.

Examples

(1) *Economic geography of India*

- U6.44 where
- U6 = Economic geography
- U6.44 = Economic geography of India

(2) *14th century trade routes of the world*

- U641.1'H where
U641 = Trade routes
U641.1 = Trade routes of the world
U641.1'H = 14th century trade routes of the world.

(3) *A conducted tour of Paris*

- U8.53.P where
U8 = Travel
U8.53 = Travel in France
U8.53.P = P is for Paris- (second level of Space).
 The Class number now gives the meaning it is travel in Paris.

(4) *A trek to the Himalayas*

- U8.4.g7H where
U8 = Travel
U8.4 = Travel in Asia
U8.4.g7 = Travel in the mountains of Asia
U8.4.g7H = Travel in the Himalayas

(5) *Rainfall in Andhra Pradesh in 1984*

- U2855.4416'N84 where
U2855 = Rainfall
U2855.4416 = Rainfall in Andhra Pradesh
U2855.4416'N84 = Rainfall in Andhra Pradesh in 1984.

(6) *Voyage of discovery to the North Pacific Ocean*

- U8.97.9S where
U8 = Travel, voyages and expeditions get the same number
U8.97 = Voyages to Pacific Ocean
U8.97.9S = 9S is orientation division and stands for North.

(7) *A study of temperature of Delhi for the period (1970-1979)*

- U284.4481'N79←N70 where
U284 = Temperature
U284.4481 = Temperature of Delhi
U284.4481'N79←N70 = Temperature of Delhi for the period 1970-1979.

(8) *Indian immigrants in Southeast Asia*

- U426(Y73(P15).43 where
- U426 = Immigrants
- U426(Y73(P15)) = Sharpened by (SD). Y73(P15) is for Indians from Sociology Class
- U426(Y73(P15).43 = 43 from Spacc Isolate for Southeast Asia

(9) *Relief map of India*

- U13.44 where
- U13 = Relief map
- U13.44 = Relief map of India

(10) *Climatic changes due to pollution*

In classification language the title to be interpreted as influence of pollution on climate. Pollution is the second phase,

- U2870gD854 where
- U287 = Climate
- 0g = Connecting symbol for influencing phase relation
- D854 = D is the Main Class Engineering and 854 is [P] facet for pollution.
- U2870gD854 = Influence of pollution on climate.

Self Check Exercise - 2

Construct class numbers for the following titles :

- a) *Rainfall in A.P. brought upto 1980s*
- b) *A conducted tour of Italy*
- c) *17th century trade routes of the world*
- d) *Geographical review of India (1936)*
- e) *President of Geographical Society of America (1958)*

Note: i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this unit.

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10.4 HISTORY

History is the study of events in the past, such as those of a nation, especially events concerning the rules and governments of a country, social and trade conditions, etc.

Colon Classification has treated History on a different footing compared to any other schemes of classification. Subjects which ordinarily treated as political science, public administration are part of History in Colon. A book on municipal administration or a book on civil service is classed under History class. Political parties, foreign relation, elections are all part of History class. Political parties, foreign relation, elections are all part of History and not Political Science. A student of Public Administration or Political Science will be at a loss to know how such disciplines are part of History. You may not agree but the fact remains, those subjects are to be classified under History.

One major change in the Schedule has been made. Under the problem facet of foreign policy "19" has been made as a host class and separate rules are prescribed in the Annexure. The numbers given in the facet formula for History is

V	[P],	[P2]	:	[E]	[2P]	[T]
Community		Part		Problem		Time

Community facet is to be taken from Space Isolate and other facets are enumerated.

(1) *Ancient history of Greece*

V51'D where

V51 = History of Greece

V51'D = [P2] and [E] are absent and the other facet is only Time.

It is not specified up to what period of time history is covered.

Ancient history of Greece is of BC and beginning of AD and hence D is the appropriate digit for Time.

(2) *History of Indian National Congress*

V44.4M85v where

V44 = Indian history

V44,4 = Political party

V44,4M85 = Indian political party that came into existence in the year 1885

V44,4M85v = v is for the history of Indian National Congress

(3) *Centre-State relation in India*

V44:13 where

V44 = Indian history

V44:13 = India and its constituent states

(4) *Goa's fight for liberation from foreign rule*

- V44-542:51 where
V44 = India
V44-542 = India of the Portugal. Formation of the number for Goa is done by Super-imposition method. The reference to Goa here is before it was freed from Portugese rule. 542 is Portugal.
V44-542:51 = Goa's struggle for independence

(5) *India's parliamentary election of 1984*

- V44,3:91'N84 where
V44 = History of India
V44,3 = Indian legislature or Indian Parliament
V44,3:91 = India's parliamentary election
V44,3:91'N84 = India's parliamentary election of 1984

(6) *Foreign relations between India and U.S.S.R.*

Before giving the number some clarification is made on the subject of foreign policy. In the Annexure a separate facet formula has been given and also a new array of isolates are enumerated.

The formula is

V : 19 [P] [P2]
 (GD) Enumerated
 numbers and (SD)

When the foreign relation is between two countries the second country is to be sharpened by (GD). We also call this type of isolates as telescoped facets. [P2] numbers are enumerated in the Annexure and further numbers to be derived by Subject Device. The number for the above example will be

- V44:1958 where
V44 = History of India
V44:19 = Foreign policy of India
V44:1958 = 58 is for Russia

(7) *The story of World War II*

- V1:19(zM)'N45←N39 where
V1 = World history
V1:19 = Foreign relations. Further number to be taken from the Annexure
V1:19(zM) = (zM) is for War
V1:19(zM)'N45←N39 = Second World War can be shown by the period 1939 to 1945.

(8) *India's non-alignment policy*

- V44:19(zK) where
V44 = Indian history
V44:19 = Foreign policy of India
V44:19(zK) = (zK) is from the Annexure for Non-alignment

(9) *Disarmament talk between U.S.A. & U.S.S.R. 1985*

V73:1958(zT)'N85 where

V73 = History of U.S.A. (You can also bring V58 instead of V73)

V73:19 = Foreign policy of U.S.A.

V73:1958 = Foreign policy of U.S.A. with Russia

V73:1958 (zT) = Foreign policy between U.S.A. and Russia with the context of disarmament

V73:1958(zT)'N85 = Disarmament policy between U.S.A. and Russia in 1985

Self Check Exercise - 3

Construct class numbers for the following titles :

- a) *Functions of Prime Minister of India*
- b) *Janata Party*
- c) *Functions of Viceroy General of British India*
- d) *US Armament policy towards Pakistan*
- e) *The story of World War Policy*
- f) *Life of Indira Gandhi*

Note: i) Write your answer in the space given below.

ii) Check your answer with the answers given at the end of this unit.

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10.5 POLITICAL SCIENCE

Political Science is the scientific study of politics and government.

As stated in the History class, politics of a country is classified not under Political Science but under History. The logic behind this is that politics of to-day is History tomorrow and on that basis under Political Science class mainly theoretical aspects are classified. The facet formula is

W	[P],	[P2]	:	[E]	[2P]
	Type of	Part		Problem	
	State				

In the schedules of Political Science only [P] type of state has been enumerated. [P2] and problem are to be taken from the History class.

Examples

(1) *History of feudalism*

- W3v where
W = Political Science
W3 = Feudal state or Feudalism
W3v = v is for common isolate history

(2) *Totalitarian rule, its nature and characteristics*

- W64 where
W64 = Dictatorship or totalitarian state

(3) *Human rights and fundamental freedom*

- W:5 = 5 is from Energy facet of History. It stands for civil right and duty.
The subject is comprehensive on the fundamental freedom of man and
the subdivision of 5 are all regarding the human rights.

(4) *Democracy and Socialism*

- W60aXM2 where
W6 = Democracy
0a = Connecting symbol for general phase relation. The subject is a discussion on
the relation between democracy and socialism.
XM2 = Socialism, Amplified Basic Class under Economics.

(5) *Philosophy of democratic government*

- W6:(R) where
W6 = Democracy
W6:(R) = Philosophy of another subject is derived by Subject Device.
When the two subjects are intertwined, second tool is to be determined and
it is to be used as Subject Device.

(6) *The case for and against second house of legislature*

- W,32 where
W = Political Science
W,32 = Second house from [P2] of the Main Class History

(7) *The world order and the non-aligned movement*

- W:19(zK) where
W:19 = Foreign policy or international relations. 19 is from [E] of History
W:19(zK) = (zK) is Non-alignment as given in the Annexure and which we have already
discussed under History Class

(8) *Functions of a prime minister in a monarchy*

- W4,21:3 where
W4 = Monarchy
W4,21 = Prime Minister in a monarchy. 21 is from [P2] of the Main Class History
W4,21:3 = Functions of the Prime Minister in a monarchy

(9) *Influence of religion on politics*

- W0gQ where
W = Political Science
0g = Connecting symbol for influencing phase
W0gQ = Influence of religion on political science. Religion is the influencing phase and the Main Class is Political Science

(10) *Freedom of work in a democracy*

- W6:58(Y5) where
W6 = Democracy
58 (Y5) = From [E] [2P] of History Class for freedom of work

Self Check Exercise - 4

Construct class numbers for the following titles :

- a) *Functions of Executives in World States*
- b) *Functions of Legislature in Democracy*
- c) *Indian Association of Political Science*
- d) *International Journal of Politics (US, 1968)*
- e) *Freedom of work in Democracy*

Note: i) Write your answer in the space given below:

ii) Check your answer with the answers given at the end of this unit.

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10.6 ECONOMICS

Economics is the science of production, distribution and consumption of goods; condition of a country as to material prosperity.

In Colon Classification Economics is a fairly comprehensive Class in which commerce, business management and allied subjects are part of economics. In Economics there is also amplified basic class of specials and systems. Use of Material facet may be needed when [P] is 61-roncy. There are two differential facets under [E] [2P] applicable to 62 Banking and 72 Taxation of [P]. Another feature in economics is the provision of sectors. Number building by the use of Sector Device is fascinating as minute classification is possible. Few numbers based on Sector Device are worked out to show the capacity of the Colon notation,

The facet formula for Economics is

X [P] : [E] [2P]
Business Problem

The facet formula is simple and both the facets are enumerated. In case of industries, the numbers are to be built with the help of Subject Device. Few illustrated examples are provided in the Schedule.

Examples :

(1) *Economic history of India 1948*

In this subject both Business facet and Problem facet are absent as the subject is too broad. But there is Space and Time and you know that Space and Time can be added whenever warranted.

Xv44'N5 where
X = Economics
Xv = Economic history. v is Common Isolate and a Facet formula is given to the Common Isolate to further use Space and Time.
Xv44 = 44 is for India - Economic history of India
Xv44'N5 = In the title 1948 is date of publication and as per the Rules prescribed for Time the last effective decade has been worked out.

(2) *Principles and theories of economics*

We can put this subject as science of economics of economic theories or economic thought. The number of documents published on this subject are not only numerous, they are varied. Hence it requires a separate class number. In Colon it is derived by Subject Device.

X:(R) = Which means philosophy, theory or economic thought.

(3) *A history of Russian economic thought 1964*

In example 2 we discussed only about economic theories. Development of economic theory is another feature of the subject and requires a separate class number.

- X:(R)v58'N7 where
 X:(R) = Economic thought
 X:(R)v = History of economic thought.
 The use of Common Isolate v has been explained in example 1.
 X:(R)v58 = Russian economic thought
 X:(R)v58'N7 = Russian economic thought brought up to 1970s.

(4) *Money and banking*

There are two isolates in this subject, money and banking and in such cases, a broader number to be taken which comprises both the subjects.

X61 = Money

It is not necessary to give number for banking. That aspect will be looked after by the Cataloguer to represent the subject, if need be, by additional subject heading or by cross reference entry:

(5) *The curse of paper-money*

- X61;4 where
 X61 = Money
 X61;4 = Paper money. 4 is Material and can be used when [P] is 61.

(6) *British investments in India*

- X65:440j56 where
 X65 = Investment
 X65.44 = Investment in India
 X65.440j = 0j connecting symbol for general intra-facet relation
 X65.440j56 = 56 is for Great Britain from Space Isolate. The meaning of the Class number is relation between India and Britain regarding investment.

(7) *Rate of interest in commercial banks*

- X625:11 where
 X625 = Commercial banks
 X625:11 = Rate of interest in Commercial banks.
 A separate Energy Schedule applicable to banks is provided on page 2.114. In the same way there is another schedule applicable to Personality Facet of Taxation, e.g. *Incidence of taxation in India* will be X72:1.44.

(8) *Unemployment insurance in Great Britain*

- X8192.56 = 8192 is for unemployment insurance and 56 for Great Britain.

(9) *The runaway rupee - a study of inflation in India*

- X61:741.44 where
 X61 = Money
 X61:741 = Boom of money, or inflation of money
 X61:741.44 = Inflation in India

(10) *Indian Tariff Board : Grant of protection to paper industry*

- X8(M13):531.44 where
X8 = Industries
X8(M13) = Different industries are to be derived by Subject Device,
 M13 is for paper making from the Main Class Useful Arts.
X8(M13):531 = 531 is for tariff protection
X8(M13):531.44 = Tariff protection to paper industry in India.

(11) *Cost of production of motor cars in Japan*

- X8(D5133):26.52 where
X8 = Industrial economics
X8(D5133) = D5133 is for motor cars from the Main Class Engineering
X8(D5133):26 = 26 for cost of production
X8(D5133):26.52 = Cost of production of motor cars in Japan.

(12) *Import restrictions on electronic goods*

- X8(D65):555 where
X8(A) = Industries
X8(D65) = Electronic industry
X8(D65):555 = Import control on electronic industry.

(13) *Competition in the soap industry*

- X8(F9496):516 where
X8(F9496) = F9496 is soap manufacture from Technology Class
X8(F9496):516 = Competition in the soap industry

(14) *Management of cooperative sugar factories in Maharashtra*

In this subject cooperatives is an amplified basic class and hence to be taken first.

- XM,8(J94):8.4435 where
XM = Cooperatives
XM,8(A) = Cooperative industries. 8(A) is from [P] of X. Rema
 P precede [P] without which it means XM8 another
 that came into being in the year 1880s (M8 is
XM,8(J94) = J94 is for sugar production from Agriculture
XM,8(J94):8 = Management of cooperative sugar
XM,8(J94):8.4435 = Management of cooperative

(15) *Labour problem in public enterprise road transport*

- X9W,411:9 where
X9W = Public enterprise,
 a Special in Economic and as per Rules Special to be taken first.
X9W,411 = 411 is road transport from [P] of Economics
X9W,411:9 = 9 for Labour problem

(16) *Wages of female workers in jute industry*

In the title you can observe that wages and female workers fall under the same energy facet 9 labour problem. The isolate 9 and its divisions have been grouped under different sections called "still more concrete sector, more concrete sector and least concrete sector". In such situations the Rule is you have to take first still more concrete sector, then the more concrete sector and lastly the least concrete sector. The number from each sector should be separated by a comma and the common number if appear in the later sector should be omitted. In the title above female workers is under still more concrete sector and wages under least concrete sector and hence the number for female workers should be taken first.

- X8(J741):9F:3 where
X8(J71) = Jute industry. J741 for jute from the Agriculture class.
X8(J741):9F = Female workers in the jute industry.
X8(J741):9F,3 = 3 is from 93 under Energy facet for wages. As stated earlier when two numbers from the same facet occur the more concrete sector should be taken first (in this case 9F) and the lesser concrete 93 is to be taken as a later number and the common number 9 is to be deleted and the number should precede with a comma.

(17) *Trade unions of unskilled workers in the cement industry*

- X8(D35):99C,7D where
X8(D35) = Cement industry
X8(D35):99C = Unskilled workers in the cement industry
X8(D35):99C,7D = 7D is from 97D for trade unions.

Employment of semi-skilled children in the cosmetic industry

- F95 where
 = Cosmetic industry. F95 is from Technology Class.
 = Child labour in cosmetic industry.
 = F95 is taken first as it fall under the still more concrete sector.
 = F95 for employment

(19) *Arbitration in the strike of female workers regarding maternity benefit in textile industry*

- X8(M7):9F,79D,6,5855 where
X8(M7) = Textile industry
X8(M7):9F = Female workers in the textile industry
X8(M7):9F,79D = 79D is from 979D for strike.
Strike by female workers in the textile industry.
X8(M7):9F,79D,6 = 6 is from 976 for arbitration. Here 97 is omitted as it is repetition in the strike of female workers in the textile industry.
X8(M7):9F,79D,6,5855 = 5855 is from 95855 for maternity benefit.
You can observe that the sector numbers are taken from the bottom first and then gradually you go up. This is only to show how number building is possible in Colon Classification.

(20) *Provident fund to technical staff in the small scale cooperative watch making industry.*

Note in this case you have both System and Special, hence System to be taken first.

- XM,9B,8(MB9):99T,582 where
XM = Cooperative (System)
XM,9B = 9B is X9B for small scale (Special)
XM,9B,8(MB9) = 8 (MB9) for Watch making industry.
8 is X8(A) for industry and MB9 is horology or science of time.
XM,9B,8(MB9):99T = Technical staff in the small scale cooperative watch making industry.
XM,9B,8(MB9):99T,582 = 9582 for provident fund where the initial 9 is omitted.

Self Check Exercise - 5

Construct class numbers for the following titles :

- Strikes in Indian railways (brought upto 1990)*
- Incentive plan for female married clerical staff*
- Value of bimetal coins in India*
- Distribution of food grains under private cooperative system*
- Influence of British tariff on Indian tariff (brought upto 1950)*

(7) *Treatise on advocates act*

- Z44,8,53 where
Z44 = Indian law
Z44,8 = Indian courts
Z44,8,53 = 53 for advocate from [P3] applicable to 8 of [P2]

(8) *Code of Civil procedure*

- Z44,71,11 where
Z44 = Indian law
Z44,71 = Civil action
Z44,71,11 = Civil procedure. Note 11, Civil procedure is [P3] but it cannot be taken directly without taking an appropriate number from [P2]

(9) *Law on bribery and corruption*

- Z44,3,3 where
Z44 = Indian law
Z44,3,3 = There is no clear cut number in Colon. 3 under [P3] and its sub-division gives the meaning of giving and receiving. It is also a type of mutual consent and hence put under 3 of [P2].

(10) *Famous and historical Indian trials*

- Z44,7,5 where
Z44 = Indian law
Z44,7 = Cause of action
Z44,7,5 = Indian trials, Note trial is given under [P3] but cannot be directly taken without taking [P2]. It is also stated that 5 of [P3] is applicable to 7 of [P2].

Self Check Exercise - 7

Construct class numbers for the following titles :

- a) *Indian law of inheritance*
- b) *Christian marriage law*
- c) *US war law of mines*
- d) *Succession of US copyright law*
- e) *All-India conference on International law (1982)*
- f) *American law institute*
- g) *President of the Supreme court Bar Association of India*

- Note: i) Write your answer in the space given below.
ii) Check your answer with the answers given at the end of this unit.

4. a) W95,2:3
 b) W6,3:3
 c) W.44,g,9N
 d) Wm73,N68
 e) W6:58(Y5)
5. a) X415:979D.44N9
 b) X:9F5,9P,35
 c) X61;5:7.44
 d) XM,9S,8(J38):3
 e) X:53.440r56N5
6. a) Y12:7:7.44N90←N47
 b) Y:356.1(J)
 c) Y:411:5(Z).4411
 d) Y73(Q7):3411
 e) Y310w3:58
 f) Ym44,N82
- a) Z44,2,1
 b) Z(Q6),122
 c) Z73,A2113
 d) Z73,2674,4
 e) Z1p44,N82
 f) Z73,d,9N63
 g) Z44,81,5,g,9N,1

10.11 ASSIGNMENT

Classify the following titles according to CC6 :

- a) *Botany in Indian Universities*
 b) *Teaching technique to adult illiterate through Montessori methods*
 c) *Britain's economic problems, 1976*
 d) *Economic history of Japan, 1983*
 e) *Bengal famine of 1944*
 f) *Unemployment benefit to rural manual workers*
 g) *A study of rural women's ornaments*
 h) *Wages in the mining industry*
 i) *Transfer of property act*
 j) *Complete digest of Supreme Court cases (1950-1969)*
 k) *Trial by jury in the USA*
 l) *Fauna of Himalayas*

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