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# Lesson No.

1.1 : Genesis and Development of Universal Decimal Classification

and Recent Trends

1.2 : Salient Features of Universal Decimal Classification

(Abridge English Edition (AEE, 1961))

1.3 : Generalities

1.4 : Philosophy, Psychology, Logic, Ethics and Religion, Theology

1.5 : Social Sciences

1.6 : Linguistics and Literature

1.7 : Mathematics and Natural Sciences

1.8 : Applied Sciences and Technology

1.9 : The Arts, Recreation and Sports

1.10 : Geography, Biography and History

Department website: www.pbidde.org

Author: K.P. Singh

# Lesson No.: 1.1

# Genesis and Development of Universal Decimal Classification

and Recent Trends

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- 1.0 Learning Objectives

The library classification is the basic tool for organizing and exploring the documents stored in a library. In modern times they are the navigation tools for locating and retrieving documents more precisely and relevantly. The Universal Decimal Classification (UDC), an adoption of world's oldest classification scheme, i.e., Dewey Decimal Classification (DDC), designed and developed by two eminent professionals namely Paul Outlet (1869-1944) and Nobel laureate Henri La Fontaine (1854-1943), and first published in French in 1904-1907. After reading this chapter you will be able to:

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- Trace the history, genesis, development of Universal Decimal Classification and its various versions;
- Understand the notational system and structure of the UDC;
- Understand the main characteristics of UDC;
- Know the variety and provisions of auxiliary tables and sign employed in UDC;
- Know the maintenance and revision of UDC; and
- Merits and demerits

# 1.1 Introduction

UDC stands for Universal Decimal Classification consisting of a combination of both enumerative and faceted character of the scheme of classification and hence, is designated as almost-faceted schemes of classification. It is a numerical system for the classification and retrieval of documents of all kinds. Use of the UDC means that information can be accurately arranged in subject areas and located quickly and easily with the minimum of searching. The system is particularly very valuable and workable in the fields of science and technology and is widely accepted internationally because it is not dependent on any one alphabet or language. With constant amplification and modification the UDC develops to cope with increasing knowledge, it is frequently updated, revised and also available in a variety of formats.

# 1.2 History

Under the auspices of a newly founded, Institute International de Bibliographies (IIB), Paul Outlet (1869-1944) a young Belgian Barrister, and his collaborator, Henri La Fontanie (1854-1943) undertook a project entitled 'Universal Bibliographic Repertory', which was intended to be a Universal classified index to record knowledge to which people all over the world would contribute, and which would be available to all. Otlet having heard of DDC (now in its fifth edition, 1894) sought the permission to translate it into French (1895). The enormous power of expansibility in Decimal notation, Paul Outlet and La Fontaine developed the scheme for bibliographic use. Consequently, a number of radical changes were made, so that the purely enumerative classification could be adopted into a faceted one, allowing the construction of a large number of class numbers to denote compound subjects that could never be foreseen. The result was a more detailed and more sophisticated scheme, called the 'Handbook to the Universal Bibliographic Repertory (Manuel du Repertoire Bibliographique Universal) published in French by IIB from 1904 to 1907.

Publisher	Editions	Pub lishing Year	Title	Language	Sub .Div.
IIB (Institute International de Bibliographie)	1st Edition	1904 to 1907	Manuel du Repertoire Bibliographique Universal	French	33,000
ÌΙΒ	2nd Edition editorship of Outlet & La Fontanel	1927 to 1933	Classification Decimal Universally	French	70,000
IIB	3rd Edition editorship of Carl Walther	1934 to 1951 7V -Tables 3V -Index	-Do-	German	1,40,000
H.M. Stationary office	3rd Edition	1936	Classification for works in Pure and Applied Science Museum Library	English	6,000
British Standard Institute	Abridged Edition BS: 1000A	1948	Universal Decimal Classification (UDC)	-Do-	
-Do-	Revised Second Abridged Edition BS1000A	1957	-Do-	-Do-	
-Do-	Revised third Abridged Edition BS1000A	1961	-Do-	-Do-	
British Standard Institution (BSI)	Latest International Medium Edition BS1000M	In 2 parts P1-1985 Systematic Table P2-1988 Index	-Do-	-Do-	
British Standard Institution (BSI)	2nd edition of IME	1993	-Do-	-Do-	
British Standard Institution (BSI)	2nd edition of IME	1998	-Do-	-Do-	

English, French and German are still the official languages for the maintenance of UDC. The Institute International de Bibliographie (IIB) in 1931 became the Institute International Documentation (IID), which in 1937 changed again to the Federation Internationale de Documentation (FID). Prior to 1992 the FID was responsible for the

management and maintenance of UDC, but with the creation of UDC Consortium the maintenance of UDC is with the UDC consortium. Since 1949, the amendment to UDC appears in 'Extensions and corrections to the UDC' first issued six monthly, but now annually. As of now, UDC has been translated into 23 different languages; excluding a tri-lingual edition, BS1000B published in 1958. The text of this edition has 3 columns in German, English and French with fourth column consisting of notation. There are 3 separate indexes. Its supplement was published in 1968.

## 1.3 The Purposes

UDC was designed to serve the following purposes.

- To provide a method for arranging books on library shelves in an order which would be helpful to the users, i.e. shelf arrangement;
- To provide a method of arranging substitutes of the books themselves in a card catalogue and printed bibliographies; and
- Both the needs do exist even today. However, in recent years the concentration has been on the second. UDC is the only scheme that was primarily designed, and has been continuously developed, to serve this end.

#### 1.4 The Uses

For any technical library or information service, UDC offers a simple, comprehensive classification system. It can be used for indexing, filing or shelving, preparing bibliographies and glossaries or simply as an aid to international communication. Many technical documents, such as British standards, contain UDC references but the system can also apply to reports, surveys, conference papers and proceedings, articles, abstracts, newspaper clippings, bibliographies, glossaries and other catalogues and indexes as well as non-book material. Its use aids interchangeability of non-book material. Its use aids interchangeability of information between departments, organizations and national institutions and access language barriers and it can be used as basis for comparative terminology in technical vocabularies or glossaries.

# 1.5 The Characteristics of the UDC

The UDC has the following characteristics:

1.5.1 Nature of Classification: Classification is a means of bringing order to a multiplicity of concepts, or perceptions, or items of information, by arranging them into classes – that is, groups of things that have something in common; this also means that they have something distinctive, differentiating their class from other classes. A class may be divided into smaller classes, still with the properties of collective identity and distinctiveness, and so on until, theoretically, the whole scale is covered, from the universe of information (that is, all recorded knowledge) down to an invidious (that is, a class with only one member). UDC by its nature is faceted classification system i.e., identifying characteristics common to many categories and arranging them in lists or tables each

representing a facet (that is, the total of concepts obtained by applying a particular characteristic of division).

- **1.5.2 Overlaps:** The above categories of classification scheme are not mutually exclusive. Scientific classifications may be incorporated into documentary ones, as they have been to some extent in UDC, e.g. at 549 and (though not explicitly) parts of 58 and 59.
- **1.5.3 UDC an Aspect Classification:** UDC, like many general schemes, is an aspect classification, in which a phenomenon is classed according to the context or discipline in which it is considered (so that its various aspects occur at many different places). For example, coal has no single place in UDC. The petrological aspect is at 552.574, the economic geology aspect at 553.94, the mining aspect at 622.23.
- 1.5.4 Unambiguousness of UDC: UDC notation is an artificial language, from which many of the ambiguities of natural language have been eliminated. For example, 'Power' in mathematics (the index of a number) is at 511.1, while 'power' in mechanical engineering (the output of an engine) is at 621.1.018, and 'power' in electrical engineering is 621.3.016, with 'power supply' at 621.311. Other aspects of these subjects may occur elsewhere, but in each case the class number represents a clearly defined concept, not a word or phrase whose meaning may vary according to context.

# 1.6 Notational System

The UDC notation consists of the following sets of symbols:

- (i) The ten Indo-Arabic numerals: 0, to 9.
- (ii) The Roman alphabets both capital and lower case.
- (iii) Punctuation makes like point, semi-colon, colon and inverted commas.
- (iv) Mathematical signs, the plus and the equals.
- (v) Besides these, it includes parenthesis, square brackets, the stroke and the apostrophe.

This, then, is the complete system of symbols used in UDC as its notation. The numerals are used to divide the whole of human knowledge into ten broad classes each of which has been further divided to form ten theoretical classes and so on.

- **1.6.1 Mnemonics:** The common auxiliary sub-division and the parallel division are two principal mnemonic devices used in UDC. Mnemonics results from the use of the same notation representing a given concept wherever that concept occurs in the scheme.
- **1.6.2 Hospitality:** Because the UDC notation consists of numbers, which are taken as decimal fractions, it can accommodate emerging new ideas, where appropriate, ad infinitum. This is so in the case of not only main numbers but auxiliaries as well. The notation is, thus, hospitable and capable of reaching

the required level of detail. Since it is hierarchic, moving from the general to the particular, it expresses the order of classes. Take the following example:

- 6 Technology
- 62 Engineering
- 621 Mechanical Engineering
- 621.3 Electrical Engineering
- 621.39Telecommunication, Tele control

At any place in this hierarchic chain any new concept can be accommodated without disturbing the order of existing concepts. The division on the basis of decreasing extension clearly expresses the order of classes in the hierarchy.

**1.6.3 Facetisation and Synthesis:** The editors of UDC claims that the scheme is faceted. Every recurrent category is a facet and its tables of common auxiliaries present the best example of facetisation. The UDC's citation order for facets is flexible to a great extent. It also uses a device called intercalation to change, as required, the citation order of facets with a view to create a more helpful sequence. The UDC is, therefore, a faceted classification.

It is also a highly synthetic scheme. Ordinarily, every faceted scheme is synthetic in structure. However, in addition to facetisation in the form of common auxiliary subdivisions, UDC also contains a number of other synthetic devices such as:

- 1. The use of signs (+, /, [], :) to connect two or more numbers,
- 2. The use of the apostrophe in special auxiliaries.
- 3. The facility to combine, in a single number, two special auxiliaries. In short, if the main tables of UDC display its hierarchical enumerative character, the auxiliary tables represent its faceted and synthetic structure.
- **1.6.4 Intercalation:** Generally, an auxiliary is prefixed or suffixed to a main number. In UDC, it can be infixed to interrupt a main number. This, at times, becomes necessary to provide an alternative approach. For example:
  - 622 Mining
  - 622 (410) Mining in Britain
  - 622.333 Mining of Coal
  - 622.333 (410) Mining of Coal in Britain
  - 622.34 (410) Mining of metal ores Britain

In the above arrangement, the books about mining in Britain get scattered throughout the class Mining. Ideally, if required, all books on British mining should be brought together. It is possible to bring them together, if the auxiliary number for space in the above case is used as an infix and allowed to interrupt the main number as follows:

622, 622 (410), 622 (410) .333, 622 (410) .34

# 1.7 The Structure of UDC

The 3<sup>rd</sup> Abridged English Edition (1961) of UDC is in one single volume consisting 254 pages and gives the class numbers of all subjects. This volume also includes index for terms/concepts appears in the volume with their class their numbers. However the latest English edition of UDC is in two parts. Part 1. Systematic tables (or schedules) (Published in 1985), Part 2. Index (Published in 1988).

- 1.7.1 Part 1. Systematic tables: This part begins with a foreword and introduction, which is followed by:
  - 1.7.1.1 Section 1 for common auxiliary signs and sub-divisions.
  - 1.7.1.2 Section 2 for special auxiliary subdivisions.
  - 1.7.1.3 Main tables.
  - 1.7.1.4 Index

#### 1.8 Main Tables

As in DDC, the theme of knowledge in UDC is divided into the following 10 classes from 0 to 9, subjects.

- 0. Generalities, science and knowledge, organization and library science
- 1. Philosophy, Metaphysics, Psychology, Logic, Ethics and Moral
- 2. Religion, Theology
- 3. Social Services-Law, Government, etc.
- 4. Philology, Linguistics, Languages
- 5. Mathematics and Natural Sciences
- 6. Applied Sciences, Medicine, Technology
- 7. The Arts, Recreation, Entertainment, Sport
- 8. Literature, Belles Letters
- 9. Geography, Biography, History

Each of the 10 broad classes is divided to form 10 narrower classes.

#### 1.9 Maintenance and Revision of UDC

The responsibility for the maintenance and updating of UDC lies with the International Federation for Information and Documentation (FID). The FID works in conjunction with national organizations having consultative arrangements with users of the scheme. It is the classification sector of FID that maintains the Master Version of UDC incorporating all approved amendments. The scheme is periodically revised. The amendments proposed by users through their national agencies are circulated as P-Notes to subscribers. After they become acceptable – they could as well be enlarged, abridged or withdrawn – they are published in UDC's annual periodical extensions and corrections to UDC. It is the responsibility of user libraries to carry out the amendments appearing in this periodical to ensure up to datedness. Proposals for amendments are welcome from all users of UDC.

# 1.10 Merits and Demerits of UDC

Although UDC has certain drawbacks inherited from DDC, it certainly has more merits to its credits. Since it's beginning, attempts have been made to adapt the

scheme to universal needs in pursuance of its initial objective of establishing and maintaining a universal bibliography. It is worth to understand the merits of UDC.

- 1. Since UDC is a general scheme of classification, it covers the whole field of human knowledge. The process of dividing a class into 10 subclasses is carried to the required degree of specificity. The required degree of detail is achieved with the help of common and special auxiliaries. The resultant subject description is of utmost precision.
- 2. Its notation consists of numerals and signs, which are understood internationally. The decimal notation allows maximum hospitality for the admission of new terms.
- 3. The UDC is an analytic synthetic classification because of the use of an auxiliary apparatus of connection.
- 4. It is extremely flexible, i.e., adjustments to local needs can be made with relative case. This is because the citation order in any given class often allows several alternative treatments (intercalation and reversible relation).
- 5. It is ideally suited to special libraries, as its full edition contains subject schedules of minute description. Special subject editions are also separately available. The medium edition can take care of almost all subjects.
- 6. It forms a carefully organized and comprehensive vocabulary of terms (in its index) for indexing and retrieval. It may be used as a thesaurus.
- 7. It is amenable to computerization.
- 8. The users are able to participate in its revision.

As against the above. It also has certain drawbacks i.e.,

- 1. The notation often tends to be long and appears clumsy. As a result, its use on the shelves becomes difficult.
- 2. User participation in revision has created unevenness in the scheme at places. It also delays revision of schedules until they become out of date.
- 3. The revision involves publication of several different editions and their different language versions for which FID finds its funds inadequate

However, the merits of UDC easily outweigh the demerits in it.

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Lesson No.: 1.2 Author: K.P. Singh

# Salient Features of Universal Decimal Classification (Abridge English Edition (AEE, 1961)

#### **Lesson Outline**

- 2.0. Learning objectives
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- 2.3. Genesis and Development of Abridged Editions in English
- 2.4. Tables of Auxiliaries
  - 2.4.1 Sign Tables
  - 2.4.2 Common Auxiliaries of Language
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  - 2.4.7 Common Auxiliaries for Non UDC Numbers
  - 2.4.8 Common Auxiliaries of Point- of- View Numbers
- 2.5. Special Auxiliaries
- 2.6. Citation Order in UDC
- 2.7. Arrangement within a class
- 2.8. The Alphabetical Index
- 2.9. Summary
- 2.10. References and Further Readings

# 2.0. Learning objectives

In this chapter, we have discussed the various innovative features of Abridge English Edition of Universal Decimal Classification (UDC) with their suitable examples. After reading this chapter you will be able to:

- Understand the salient features of Abridge English Edition (AEE) (1961)
- Understand the conceptual meaning of common and special auxiliaries and their application;
- Follow the citation order in the construction of class number and filing order for arrangement of books on the shelves and cards in a classified catalogue; and
- Use the Alphabetic Index as tool for location of class number of a subject in the schedule.

#### 2.1. Introduction

The Universal Decimal Classification (UDC) consists of a combination of both enumerative and faceted character of the scheme of classification and hence, is designated as almost-faceted schemes of classification based on partial sound theory of library classification. It is a general classification system for the classification of all kinds documents of all type of libraries and Information Centers. The system is particularly very valuable and workable in the fields of science and technology and is widely accepted internationally because it is not dependent on any one alphabet or language. With constant amplification and modification the UDC develops to cope with increasing knowledge and frequently updated, revised and also available in a variety of formats.

# 2.3. Genesis and Development of Abridged Editions in English

The third abridged edition of UDC in English language appeared for the first time in 1948, the second edition was published in 1957 and the third in 1961. The index to second edition was greatly expanded and contained more that 20,000 entries. The abridged edition is available in 16 different languages of the world and it proved to be very important edition as used by most of the library and information centers for organizing and retrieval of information. As you already learned form the chapter one that UDC originally derived from the fifth edition of DDC. More developmental history of UDC you will find in chapter one

#### 2.4. Tables of Auxiliaries

The most innovative and versatile feature of the UDC is the use and application of tables of auxiliaries. Table of auxiliaries serves the purpose of joining of complex and compound classes. UDC provides two types of tables of auxiliaries namely, sign table and number tables.

# 2.4.1. Sign Table

The sign table is similar to connecting digits used in Colon classification to combine or joining the PMEST facets occurring in a class. The sign table in UDC does not have any numerical value as they only provide the mechanism for combing the complex facets of complex classes. In abridge edition of UDC the following signs used to joining the compound and complex classes.

+ (Plus) Used for addition, e.g.,

5+8 Science and Literature

: (Colon) Used to represent all kinds of relations among the facets/ classes, e.g.,

(540:410) India and China

/ (Stroke) Used for consecutive classes, e.g.,

571/572 Anthropology

:: (Double Colon) Used for foxing the order of a class (specially used in computerized

environment), e.g.,

635.9:: 582.734 Ornamental Rose

# 2.4.2. Common Auxiliaries of Language (p.11)

This is employed to specify the language in which the document is written taking language number from Class 4 and replacing the 4 by equals. This device is used rather as part of the description of a particular book than as part of the subject. Examples:

- 1. 5/6 (03)=914.3 Encyclopedia of Science and Technology in Hindi
- 2. 22.05=948.3 The Bible in Telugu Translation
- 3. 633.88(038) =20=914.3 English-Hindi Dictionary of Medicinal Plants

# 2.4.3 Common Auxiliaries of Form (0...) (p.11-12)

The form divisions correspond to the standard sub-divisions of DC but are used in Parenthesis. These are listed in some detail and mostly consist of outer forms of presentation. Theory and Philosophy, study and teaching are excluded and (091) historical presentation is the only inner form.

# Examples:

- a) 027.5(545.3 HAR) (094.5) Harayana Public Libraries Act
- b) 577.3 (09) History of Biophysics
  - c) 378 (048) Higher Education Abstracts

# 2.4.4. Common Auxiliaries of Place (1/9) (p.13-20)

These divisions are similar to the Areas Table of the DDC. The schedule not only contains usual political divisions but also several other sub-facets of space such as zones, orientation, physical features, etc. These may be used as primary facets. Relationship between countries may be shown by the use of colon within brackets. Examples:

- a) 027.7(540) University Libraries in India
- b) 327(540:510) Foreign Relations between India and China.

When the geographical or regional aspect is emphasized entry may be under the auxiliary which then precedes the main number.

- c) (540) 388.9 Indian Air Transport Systems d) (520) 347.772 Japanese Trade Mark Laws
- In certain cases the place can also be used as intercalating device, i.e., to be

inserted into the middle of an existing piece of notation to change the facet order.

- e) 329.1 Communist Party
  329(540) 1 Communist Party of India Orientation
  f) 622.33(540-11) Coal Mining in Eastern Regions of India
- g) 634.0(540-18) Forest Products of North Eastern Regions of India.

Political and Administrative Units

- h) 027.4 (540-202) Public Library Service in Rural Areas of India
- j) 63 1.67(545.3-202) Canal Irrigation in Rural Punjab.

## 2.4.5. Common Auxiliaries of Race and Nationality (p.21)

These are based on the common auxiliaries of language and may be developed

from the main linguistic schedule. These serve to indicate racial aspects of a subject denoted by any preceding number. This facet is of limited application in nature.

e.g., a) 301. 16 (=914.3) Study of Social Relations among Hindus

b) 392.5 (=924) Marriage Customs of Jews

c) 325.48 (=96) The Rise of Independence Movement among the Africans

# 2.4.6. Common Auxiliaries of Time "..." (p.22)

These are used to indicate the period covered by a work or less frequently the date at which it appeared. Years, months and days can all be shown in logical sequence. Centuries are indicated by the use of two or three figures. Dates B. C. have minus signs prefixed. There are also many other sub-divisions of time as seasons, months, days, hours and even minutes. The complete flexibility of time facet in UDC is very useful. A minimum of four figures is observed for single years, three for decades, two for centuries, e.g.,

"1981.01.26" 26th January 1981

"0727" (A.D.727), "0004"(A.D.4), "198", the 1980's "085"

the 85's, "19", the 20th Century "01", the 2nd Century A.D. As stated already, dates before the birth of Christ are prefaced by minus sign. "—0032", 32B.C.,"—02", the 2nd Century B.C. For other periods embracing several centuries, decades or years are denoted by the initial and final figures separated by the (/) sign, e.g.,

"04/14" Middle Ages

"18/19" 19th to 20th Century

"187/189" The "Seventies", "Eighties" and "Nineties" of the 19<sup>th</sup> Century.

Other aspects of time facet are accommodated in "3/7", e.g., "31" Past, Present and Future.: e.g., 025.4 (540) "313". The future of Library Classification in India. "32/37" include seasons, months of the year, peace time, war time, work time, etc., The digit "4" represents duration of time.

# 2.4.7. Alphabetical and (Non-Decimal) Numerical Sub-divisions

The main schedules in UDC with various auxiliaries serve to class subjects, not to specify individual names or numbers. Therefore, alphabetical arrangement by name of person, place or thing is indicated according to circumstances by initial, first three or more letters or the whole name. It is generally to be used only where indicated in the tables and is particularly useful for individual biography, individual authors under literature and individual philosophers in Class 1.

e.g., a) 92 (Nehru) Biography of Jawaharlal Nehru
b) 025.49DDC Dewey Decimal Classification
c) 891.43(Prem) The Works of Munsi Premchand
e) 891.44 - 1"19" Tagore 7 Gitanjali .03=20

Literature-Bengali-Poetry 20th Century-Tagore-Individual works-Gitanjali Translated into-English.

#### 2.4.8. Common Auxiliaries of Point of View .00

Another important feature in the auxiliary schedules is the provision of

the auxiliary table for viewpoints introduced by a point and double zero (p.23). This table can be used throughout the schedules wherever necessary. These auxiliaries .001/. 009 provide a distinct but comprehensive approach to the whole field. These are:

- .001 Theoretical point of view. Aim, Trials and Tests, Research and Development.
- .002 Practical point of view, Realization, Execution, production, Materials, Plant, Products.
- .003 Economic, Financial and Commercial point of view,
- .004 Use, Operation, Care, etc.
- .005 Installation, Equipment point of view.
- .006 Space, Site, Accommodation point of view.
- .007 Personnel, Staff, Manpower point of view.
- .008 Organisation, Management point of view.
- .009 Social and Ethical point of view, Public Relations, Responsibility, Obligations, etc. The following example indicates the use of these point of view numbers to represent different aspects of industry.

# 621.9(548)(HMT)

- .001 Programme, research, development
- .002 Production and technique problems
- .003 Commercial and financial aspects
- .004 Operation
- .005 Equipment and Installation problems
- .006 Space, site, accommodation, etc.
- .007 Manpower and personnel problems
- .008 Administration and Management

A more specialized use of these point of view numbers is described in the introduction. This is by coloning after .00 numbers to specify each point of view in detail.

Title-I 658.8.007 (540) Marketing Personnel in India 658.8.007 (540):347.74 Commercial Contracts-Law for (repeat title 1)

658.8.007 (540):351.83 Labour Legislation for (repeat title 1)

658.8.007(540):362.62 Retirement Pension for (repeat title 1)

Another new element which was not included in the 3rd Abridged edition of 1961 is the use of .00.0/.9 to indicate the authors point of view. This will also help to sharpen the focus.

e.g., 301.172.00.329.14 Leadership from the Socialist point of View

According to Foskett, another new innovation to the common auxiliaries is the introduction of -0 and its use for persons -05. In the 3rd Abridged English Edition (1961) this facet was enumerated under 3 Social Sciences and instructions were given in a few other places permitting its use. Now it has been transferred to common auxiliaries and may be used at any point wherever it is necessary, e.g., 61-055.2 Female Doctors. These common auxiliaries listed in the foregoing paras can be applied

to any subject irrespective of its extension or intention. In other words they function as scheduled mnemonics, which is one of the very important qualities of notation.

# 2.5. Special (Auxiliary) Sub-Divisions .0, 'And-

The common auxiliaries represent subordinate ideas recurring in almost all branches of knowledge and each category having its own distinctive sign. These are applicable to the entire scheme. Special auxiliaries are special to the class to which they belong. These cannot be added to numbers outside that class. These are -(hyphen) .0 (point zero) and '(apostrophe). The - and 0 are used to introduce facets peculiar to a given facet. In Engineering - is the indicator for the parts facet. In Literature - is used to indicate form facet. In Civil Engineering 0 is used to introduce various facets and in Chemical Engineering to introduce operations facet. These are used in different senses. For example -3 is used in quite different sense under 54,621 and 622, while .05 is used in greater variety of meanings under 06,22,331,34,53,624,654,565 and the main divisions of 66,67 and 7.

- e.g., a) 62-2 1 Fixed parts, Frame, Housing Mounting.
  - b) 891.43-31 Hindi Novels.
  - c) 66.04 Heat transfer treatments. Furnaces.

The apostrophe (') is usually considered to be special auxiliary. It is the most recent additions to UDC auxiliary notation. It is mostly confined to Chemistry and Chemical Technology. It introduces sub-facets of the primary facet. 'It serves to building up the compound number for substance derived from two or more components by integrating the relevant 'component' sub-divisions with an ~umbrella' base-number meaning 'Composition' (e.g., 666.113) or by accreting some secondary 'component' sub-division(s) to a base number; denoting the primary component (e.g., 546.3'4) (UDC-Abridged 3rd English Edition, 1961, p.25).

e.g.,	a)	546.33	Sodium
		566.12	Halogens in General
		546.33'12	Sodium Halogens Compound
	b)	547.29	Carboxylic acids
		547.26	Alcohols and their esters
		547.29'26	Carboxy-acid esters
	c)	669.15	Alloys of Iron
		669.248	Nickel Planting
		669. 15'248	Nickel Plating of Iron

These devices add synthetic quality to notation in UDC. They also help to a certain extent in achieving intra array relation in UDC.

# 2.6 Citation order in UDC

Guide to UDC provides certain guidelines for deciding the citation order for the elements making up the subject. For a general or partially general collection, the first step is usually to decide the main class with which to begin. One principle evident in

the UDC is that the 'General aspect' reflecting usually as a specialized field of knowledge comes first and concrete elements are subordinated to them. According to guide to UDC the following formula indicates an order of citation. Whole thing-Kinds-Parts-Materials-Properties-Operations-Agents. This order is suggested whenever a particular need of the collection does not strongly indicate a different one. For example, concrete aspects like women, plants and wood are scattered throughout UDC being subordinated to general aspects such as in the case of women those of sociology, law, medicine, social welfare, ethics, armed forces, political science and soon; in the case of plants those of arts, biology, applied economics, botany, agriculture, insurance, ecology, interior decoration, animal husbandry; and in the case of wood those of, building materials, fuel, harvesting, painting, prehistoric, products, (combustion), sculpture, etc. Thus:

571.5	Prehistoric objects-wood
581	Biology-plants
581.5	Ecology-plants
582	Systematic botany
631.5	Breeding-plants
634.03	Harvesting-wood
634.0.81	Wood
662.71	Fuel-wood
691.11	Building Material-wood
7.043	Artistic Representation-plants
727.6	Housing-plants
75,023.1	Painting-wood

The above examples show the scattering of specific aspects of a subject at different places. But if a classifier wishes to collect all the aspects of such 'specific' aspects this may be done in the following way. The principle of flexibility is greatly achieved in UDC.

3-055.2	Women
:356	Army Corps
:358.4	Air Corps
:359	Naval Service
:396	Society
:396.1	Emancipation
:396.6	Family Status
:613.99	Health and Hygiene
:618.1	Diseases

# 2.7. Arrangements within a Class

UDC does not prescribe a definite facet formula in each class. Its flexibility in meeting different requirements is part of its strength. For a given collection a definite

facet formula must be decided upon for each class, if the alterative arrangement had been ignored. To achieve consistency and helpful order a standard facet formula for citation order has been suggested in the UDC to be followed for achieving helpful order. This is whole thing-Kinds-Parts-Materials-Properties-Processes-Operations-Agents. To assist the classifier in deciding a citation order within each class UDC provides a number of hints for deciding the citation order. The enumeration in some of the main classes, which provide ready-made class number not requiring synthesis, is one of the ways of deciding the citation order. For example:

678.03	Raw and semi processed materials
678.04	Accessory Materials
678.05	Plant, Machinery, Equipment
678.06	Applications, Finished Products, Wares
678.07	Materials according to special characteristics

In certain places in the schedules different concepts are enumerated under each of the main classes as distinct from providing them as special or common auxiliaries. For example, under the main class 78 Music the Special auxiliaries .01.09 list various aspects of Music, e.g., technique, style, composition, etc., whereas the theory of music and kinds of music, music for individual instruments are enumerated under 781/789. Another hint in deciding the citation order is through explicit instruction in the schedules. For example, under 4 linguistics at 40 General questions the following instruction 'for particular languages see 42/49 to which these 40 ... divisions may be coloned (or add as -0... auxiliaries), e.g., English dialects 420:408.7 or 420-087'.

# 2.8. The Alphabetical Index

The alphabetical Subject Index to the 3rd abridged English edition is very economically constructed consisting of 20,000 entries for about 12,000 estimated topics in the schedules. The Index reflects chain procedure. The Index omits personal names. It helps as a key to the classified schedule. The following is an example taken from the Index.

Capital (capitalism generally)	330.14
as instrument of production	338.91
available, management	658.15
fight of	332.453.5
investment of	332.67
National see national wealth	
private see private capital productivity of	338.94
Taxation	336.21

#### 2.9. Summary

In response to the demand from several quarters for comprehensive short editions in English, BSI is bringing out abridged editions of UDC from time to time.

The AEE, 1961 is one of them. This edition includes general instruction, principles, structure, notation, auxiliary notation, use of auxiliaries and compound numbers, citation order and filing order. Tables of auxiliaries and the use of special auxiliaries follow the descriptive part. Then you will find outline of the main divisions and detailed schedules of classes between pages 26-145. The schedules are well supported by Alphabetical Index from pages 147-253. At the end you will find a brief survey of UDC editions. The AEE, 1961 was brought out to meet the growing needs of small and medium size libraries and information centres. The introductory part provides the required guidelines for the classification of documents by using auxiliaries as well as the main schedules. The signs and symbols and the variety of common and special auxiliaries clearly demonstrate the synthetic nature of UDC. The Index helps us to locate a class number for a subject in the schedules.

# 2.10 Refrences and Further Readings

- **BATTY (David)**. The Universal Decimal Classification. In Encyclopedia of Library and Information Science. Vol.32. New York: Marcel Dekkar. P 125-146.
- **2. BOSE (H).** Universal Decimal Classification: Theory and practice. New Delhi: Sterling Publishers. 1990. Pp. 192
- **3. FOSKETT (A C).** Universal Decimal Classification. London: Clive Bingley. 1973. P172.
- **4. FOSKETT (D J).** Trends in research on UDC. Library Science With Slant to Documentation. 16(June); 1979; 62-64.
- **5. MILL (J).** Modern Outline of Library Classification. Bombay: Asia Publishing House. 1962.
- **MILL (J).** Universal Decimal Classification. New Jersey, VI Rutgers Graduate School of Library Science. 1964. Pp 132
- 7. RAJU (AAN). Universal Decimal Classification. Madras: TR Publications. 1991. Pp 234
- **8. SARDANA (JL) and SEGHAL (R L).** Universal Decimal Classification: Structure and Methodology. New Delhi: ESS ESS Publications. 1983. Pp208.
- **9. SATYANARAYAN (VVV).** Common auxiliaries in UDC and common isolates in CC: A comparative study in their practice. IASLIC Bulletin. 22 (2); 1977:77-84.
- **10. Universal Decimal Classification.** Abridged English Edition. Ed.3. BSI: 1000A: 1961.

Lesson No.: 1.3 Author: K.P. Singh

#### GENERALITIES

#### Structure:

- 3.0 Learning Objectives
- 3.1 Scope of the Subject
- 3.2 Summary of Class
- 3.3 Details of the Class
- 3.4 Exercises
- 3.5 Further Readings

# 3.0 Learning Objectives

When every subject is assignable to one and only one main class, then there should be no subject as a truly generalia class. In fact there is no generalia subject, only there are generalia documents - which hold together bits of knowledge from various disparagedly varied subjects. The chapter gives a comprehensive detailed study of the coverage, summary, details of the Generalities class and selective practical exercises. After reading this chapter you will be able to:

- know the scope of subjects and details of the principal classes under the Generalities;
- know the summary of the Generalities;
- construct complex and compound class numbers in the respective classes;
- make class numbers of the titles as given under the class; and
- do self exercises and check your answer

# 3.1 Scope of the Subject

The class Generalities deals with general aspects of the universe of knowledge as well as some of the specific subjects. It includes subjects like Science and Knowledge, Documentation, Writing, Bibliography, Libraries and Librarianship, Institutions, Documents and general publications. The various divisions and subdivisions of the class 'generalities' have been shown schematically in the next section. The general publications covered include periodicals, newspapers, encyclopedias, etc, but these have not been covered as 'forms' of material as treated in many other schemes of classification. A general encyclopedia would be classified under this class, i.e. under 03, but encyclopedia of Philosophy would be classed under Philosophy. Similarly general directories, yearbooks, almanacs, etc would be classed under 05. The subsequent section explains with the help of examples the scope of the main division Generalities and the methodology of number building.

# 3.2 Summary of the Class

- 00 Prolegomena, Fundamental of Knowledge and Culture
- 01 Bibliography and Catalogues
- 02 Libraries and Librarianship
- 03 Encyclopedias, Dictionaries and Reference Books
- 04 Essays, Pamphlets, Offprint and Brochures
- 05 Periodicals and Reviews
- O6 Corporate Bodies, Institutions, Associations, Congress Exhibitions and Museums
- Newspapers and Journalism
- 08 Polygraphies and Collective Works
- 09 Manuscripts, Rare and Remarkable Works and Curiosa

#### 3.3 Details of the Class

Main class Generalities is subdivided into subclasses, each of these into more and more subclasses. The first division of 00 includes the classes 001 to 009. Works dealing with knowledge in general; Documentation; Syntactic, Semantics, scripts, signs and symbols, etc; Organisation study, methodology, etc; Information, Communication, control theory (cybernetics) including human engineering, etc; civilization, culture; and general works on the humanities are classed under this subdivision. Some of the important subdivisions deal with definition of science and limits of knowledge 001.1; Value and significance of Science 001.3; Scientific theories and hypothesis 001.5; Scientific laws 001.6; Working methods and technique 001.8; Documentation Centres 002.6; Calligraphy 003.3; etc.

The second division 01 is devoted to bibliographies and catalogues and includes the class numbers 011 to 019. Universal and general bibliographies are classed under 011 and special subject bibliographies under 016. Bibliographies of a specific author and institution under 012 and can be individualized by alphabetical device. Bibliographies of groups of authors of one country are classed under 013. Lists of anonymous or pseudonymous, and separate indexes to works i.e. such works with peculiar characteristics are classified under 014; National bibliographies and those according to the place of publication of works are put under 015. The division 017/019 is devoted to catalogues of libraries and book-trade in general. The alphabetical catalogues by author, title and subject are assigned to the class 018. Dictionary catalogues and other special bibliographies are classed under 019.

Libraries and Librarianship are put under 02 which has divisions 021/028 and deal with various aspects of the subject such as: Functions, Financing, Legislation under 021; Library site and premises, planning, storing space, stacks, lighting, heating, etc. under 022; Management of Libraries and staff 023; Library rules and regulations and its use 024; Administrative routines, classification, cataloguing, indexing, reference work, etc. 025; Types of libraries are covered under 026 and 027. Reading and advice for readers is covered under 028.

The division 03 and its subdivisions are used to classify encyclopedias, dictionaries and reference books. Collections of essays, offprint, reprints, pamphlets, and brochures are assigned to 04.

The divisions 050 to 059 are the subdivisions of 05. Business and editorial management are assigned to 050. Almanacs and calendars to 059.

The division 060 to 069 are concerned with organizations, associations, congresses and museums. Included here would be the character, constitution, aim, membership funds, property, executive organs, activities of the Associations, exhibitions. Commemorative celebrations; anniversaries, etc. The last subdivision 069, is used for museums, museology and muscography.

Newspapers, and journalism, are covered under 07. Some examples of subjects included in this class are ownership and control 070.2; Editorial management 070.4. The divisions 080 i.e. 081 to 088 are used for collected works of individuals; collective works of several authors, series; pictorial matter generally; publications for specific readers, etc.

The last division of this class, 091 to 099, is devoted to manuscripts, Xylographic books, incunabula, and other special types of books.

#### 3.4 Exercises

3.4.1 Designing of Classification schedule based on Colon Classification on World Affairs of India and Russia

Number Building

Classification 025.49

Colon Classification 025.49CC got by alphabetical device

Designing 001.6 common auxiliary of Point of View

Numbers (p.23)

World Affairs (=Foreign Policy) 327

India and Russia (540:470)

Class Number **025.49CC.001.6: 327(540:470)** 

3.4.2 Regional Seminar on 'Use of Computers in Information Services' held at Department of Library and Information Science, University of Delhi from 4-7 Feb 2003.

Number Building

Information Services 025.5

Regional Seminar 061.3 (545.5)

Computer 681.3

Use 004.14 common auxiliary of Point of View Numbers (p.24)

4-7 Feb 2003 "2003.02.4/7"

Class Number 025.5: 061.3 (545.5): 681.3.004.14"2003.02.4/7"
Alternate Class Number 061.3 (545.5): 025.5: 681.3.004.14"2003.02.4/7"

3.4.3 Cataloguing of Hindi Reports in Special Libraries in Punjab

Number Building

MLIS 207 (a)

Cataloguing 025.3 Special Libraries 026

Reports (047) common auxiliary of Form (p.11)

Hindi =914.3 common auxiliary of Language (p.11)

Punjab (545.2)

Class Number **025.3: 026(545.2) (047) =914.3** 

3.4.4 Functions of the Director General of International Federation of Library Associations

and Institutions (IFLA, Estd., 1927) for the period of 2004-2005

Library Science 02

International Associations 061(100)
International Federation of Library 061(100) IFLA

Associations and Institutions

Director .007.1 002 common auxiliary of Point of

View Numbers (p.23)

2004-2005 "2005/2004"

Class Number **02:061(100) IFLA.007.1"2005/2004"** 

3.4.5 Wealth of India: A English dictionary of Indian raw material and industrial products published by Council of Scientific Industrial Research (CSIR), New Delhi.

Number Building

Dictionaries - (038) National wealth 339.3

Products .002 common auxiliary of Point of View Numbers (p.23)

India (540) common auxiliary of Place (p.17) English =20 common auxiliary of Language (p.11)

Class Number 339.3.002 (540) (038) = 20
Alternate Class Number 339.3.002 (540) (038) = 20

3.4.6 Comprehensive Glossary of Journalism and Printing (English-Hindi) published by Commission for Scientific and Technical Terminology (CSTT), New Delhi.

Number Building

Journalism 07 Printing 655

Scientific terminology

(=Glossary) (038)

English =20 common auxiliary of Language (p.11) Hindi =914.3 common auxiliary of Language (p.11)

Class Number [07+655] (038)=20=914.3

4.7. Indian National Bibliography, Published by Central Reference Library, National

Library Calcutta (1979)

Number Building

National Bibliography 015 India (540) 1979 "1979"

Class Number **015(540) "1979"** 

4.8. Indian Journal of Museology

Number Building

Museology 069.01 India (540)

Journal (051) common auxiliary of Form (p.11)

23

Class Number **069.01(540) (051)** 

4.9. Gale World Directory of Nuclear Scientific Institutions

Number Building

Institutions 061

International/World

Institutions 061(100) Nuclear Engineering 621.039

Directory (058.7) common auxiliary of Form (p.11)

Class Number **061(100): 621.039(058.7)** 

4.10. French-German Manual of Technical Writings

Number Building

Technical Writings 001.81

Manual (02) common auxiliary of Form (p.11)
French =40 common auxiliary of Language (p.11)
German =30 common auxiliary of Language (p.11)

Class Number **001.81(02)=40=30** 

# **Further Readings**

- **1. BATTY (David)**. The Universal Decimal Classification. In Encyclopedia of Library and Information Science. Vol.32. New York: Marcel Dekkar. P 125-146.
- **2. BOSE (H).** Universal Decimal Classification: Theory and practice. New Delhi: Sterling Publishers. 1990. Pp. 192
- **3. FOSKETT (A C).** Universal Decimal Classification. London: Clive Bingley. 1973. P172.
- **FOSKETT (D J).** Trends in research on UDC. Library Science With Slant to Documentation. 16(June); 1979; 62-64.
- **5. MILL (J).** Modern Outline of Library Classification. Bombay: Asia Publishing House. 1962.
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- 7. RAJU (AAN). Universal Decimal Classification. Madras: TR Publications. 1991. Pp 234
- **8. SARDANA (JL) and SEGHAL (R L).** Universal Decimal Classification: Structure and Methodology. New Delhi: ESS ESS Publications. 1983. Pp208.
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- 10. Universal Decimal Classification. Abridged English Edition. Ed. 3. BSI: 1000A: 1961.

Lesson No.: 1.4 Author: K.P. Singh

# PHILOSOPHY, PSYCHOLOGY, LOGIC, ETHICS AND RELIGION, THEOLOGY

#### Structure

- 4.0 Learning Objectives
- 4.1 Scope of the Subject
  - 4.1.1 Philosophy, Psychology, Logic, Ethics
  - 4.1.2 Religion, Theology
- 4.2 Summary of the Philosophy, Psychology, Logic, Ethics Class of Religion, Theology
  - 4.2.1 Philosophy, Psychology, Logic, Ethics
  - 4.2.2 Religion, Theology
- 4.3 Detailed Study
  - 4.3.1 Details of Philosophy, Psychology, Logic, Ethics, Class
  - 4.3.2 Details of Religion, Theology Class
- 4.4 Exercise
- 4.5 Further Readings

# 4.0 Learning objectives:

In this chapter two discipline namely, Philosophy, Psychology, Logic, Ethics and Religion, Theology are combined together as conceptually they are very close to each other. The chapter gives a comprehensive detail study of the coverage, summary, details of the Philosophy, Psychology, Logic, Ethics and Religion, Theology class and selective practical exercises. After reading this chapter you will be able to:

- know the scope of subjects and details of the principal classes under the philosophy, psychology, logic, ethics and religion, theology;
- know the summary of the philosophy, psychology, logic, ethics and religion, theology;
- construct complex and compound class numbers in the respective classes;
- make class numbers of the titles as given under the class; and
- do self exercises and checked your answer

# 4.1 Scope of the Subject

# 4.1.1 Philosophy, Psychology, Logic, Ethics

The outline of the class shows that/it includes the disciplines of: Philosophy, Psychology, Logic, Ethics and Morals. The two divisions for Psychology in DDC (15, Psychology; 13, Metaphysics of spiritual life, occultism) have been revised but their location has remained in the Philosophy class.

What is Philosophy? It is really most difficult question to define and even the Philosophers differ on definitions. However, Philosophy is concerned with abstract principles and it remains to be theory of all theories. The various branches of Philosophy have also been changing progressively. In the academic curriculum we generally find metaphysics, epistemology, Logic, Ethics, and aesthetics. The philosophies of the subjects such as Philosophy of science, Political Philosophy, Philosophy of religion are not considered as branches of Philosophy. Such subjects cannot be detached from the domain of philosophy completely and have only to be studied by applying philosophic theories. The disciplines of Logic, ethics and aesthetics have the normative character and fall within the domain of Philosophy.

Mataphysics is subdivided into Ontology, the theory of the nature and the types of reality; and cosmology, or the general theory of the processes of reality. Various theories of Ontology are: materialism, idealism and dualism. These theories in the UDC have been classed as Philosophical Systems and classed under 141. On the other hand cosmology concerns itself with the manner in which things and events follow space and another in time. Events and things come together either by chance or brought together by force, motion, etc. Other aspects of metaphysics are: nature of space and time, and relation of mind and body.

Epistemology is a difficult and complex subject and deals with the theory of knowledge.

Logic deals with principles of valid inference and the subject is divided into deductive logic and inductive logic. The former ensures a certain conclusion whereas the later ensures a probable conclusion.

Ethics confines itself to moral rightness of doing, and does not include technological or prudential rightness or wrongness. It therefore examines various principles for the conviction of rightness or wrongness. Psychology is now an independent discipline. But Psychology has been closely identified with Philosophy, Epistemology, as we have seen, is concerned with what of knowledge and Psychology on the other hand is concerned with how we know.

Psychology is the science of mind or mental phenomenon and activities: Systematic knowledge about mental processes. The detailed subdivisions of the class haves been given schematically in the subsequent section.

# 4.1.2 Religion, Theology

Religion is one of the important fields of humanities. It is concerned with man's beliefs and practices in relation to God and Gods or the supernatural. Worship and rituals are the outcome of the man's faith in the God. It is defined as 'a set of beliefs concerning the cause, nature and purpose of the universe, especially when considered as the creation of a super human agency or agencies usually involving a devotional and ritual observances and often having a moral code for the conduct of human affairs'. The systematic teachings about the religion, and religious thought, and analysis that treats of God is studied under theology.

The literature of religion consists of its sacred books, its regulations, decrees, exhortations and testimonials. The sacred texts are available in different editions.

Most of the divisions of this class Religion are devoted to the Christianity. The provisions for other religions have been slighted and the class is, therefore, biased in favour of Christianity. The schedules, however, provide some options to give a preferred treatment to any religion it may be necessary to emphasize. This preferred treatment is accomplished in the full edition by allowing the classifier to use numbers 22-28.

# 4.2 Summary of the Philosophy, Psychology, Logic, Ethics Class and Religion, Theology

# 4.2.1 Philosophy, Psychology, Logic, Ethics

11	Metaphysics
122/129	Special Metaphysics
122	Causality
13	Philosophy of Mind Sprits. Metaphysics of Spiritual Life
133	Occultism
14	Philosophical Systems
159.9	Psychology
16	Logic. Theory of Knowledge. Reasoning
17	Ethics, Moral Convention
18	History of Philosophy

# 4.2.2 Religion. Theology

- 21 Natural Theology
- Holy Scripture. The Bible
- 23 Dogmatic Theology
- 24 The Religion Life. Practical Theology
- 25 Pastoral Theology
- 26 The Christian Church in General
- 27 General History of the Christian Church
- 28 Christian Churches or Worshiping Bodies
- 29 Non Christian Religioins and Cults

#### 4.3 Detailed Study

# 4.3.1 Details of the Philosophy, Psychology, Logic, Ethics Class

The first divisions 111 to 119, include general metaphysics, ontology 111, with sections for cosmology, philosophy of nature 113/119. The next division, 122/129, covers special aspects of metaphysics such as causality. Indeterminism, Teleology, The Soul, etc. The division, 13 is concerned with philosophy of mind and spirit. Occultism 133 includes topics as concept and nature of the occult 133.1, supersensual experience 133.2, occult preception 133.3, magic 133.4, Palmistry 133.6, and spiritualism (133.9). Philosophical systems and viewpoints are treated under 140.8 to 141.5. Well-known "isms" as Monism, Dualism, Universalism, Energeticism, Evolutionism, Mobilism, Finalism, are all included under this class.

Psychology has been devoted only a division of the number 159.91/159.98 Various aspects such as physiological basis, nervous system, mental development, sex psychology, race psychology, individual psychology, Aptitude, Bio-Psychology sensation, Perception, Psychometry, Emotions, concentration, Induction, Telepathy, mental disorders, Psychoanalysis, Dreams, sleep and Abnormal psychology, etc. have been discussed, under this class.

Logic, Theory of knowledge and reasoing, symbolic logic, Rationalism, Scientific Inquiry, etc. have been assigned to 160.1/168.5.

Ethics, morals is another important subject under 11/19 and is assigned 171/179. General ethics is covered in 171, while 172/179 are used for social ethics, family ethics, professional ethics, ethics and recreation, sexual ethics, ethics and social relations, addiction and temperance, various ethical questions. The History of philosophy is covered by the section 19.

# 4.3.2 Details of the Religion, Theology Class

The division 21, is used for Natural Theology and 211 to 219 are concerned with Deism, Theism, Pantheism, creation, providence, Good and evil, Man's duty towards God, the future life, and Analogies. Christian religion and its various aspects are covered under the class 22/28. Divisions 221 to 229 cover the Old Testament, New Testament and Detero canonical books, respectively. The holy scripture Bible: its original texts, commentaries, other special aspects have been covered under 22.01/22.09.

Dogmatic and practical theology have been covered under 23 and 24 which include various aspects like God, Christology, man, Doctrine of salvation, Angles, Eschatology and Moral Theology, Meditations, prayers, religious reading matter furnishing and decoration of churches, personal religious life, family or domestic workship etc.

The divisions 251/259 are devoted Homiletics, Sermons, Christian churches and Christian religious orders. Matters relating to pastoral visiting, obligations of priests and ministers, Brotherhoods and lay societies created for parish work are also detailed within these sections. The classes 261/269 are concerned with Christian social and Ecclesiastical government. Some important subdivisions provide for public worship sacraments, Christian societies and associations, Christian missions.

General history of the Christian church is covered by 27. The division 27 1/276 are devoted to Religious orders, religious persecutions Heresies and schisms.

Christian churches are classed under 28 1/289. The first division 281 deals with Primitive and Eastern Churches, 282 deals with Western and Roman Churches, 283 deals with Episcopal National Churches, 284 with continental Protestant Churches, and divisions 285 to 289 deal with numerous protestant denominations.

The section 29 is used for non-christian religions and cults. Here are classed comparative history of religions, ancient Greek and Roman Religions, Early Germanic Scandinavian and Baltic-slav (wend) Religions, Buddhism and similar Religions, Thwish. Islam and various European Christian) Cults. Finally 299.1 to 299.99 is used for other religious found in the Far East and Africa, etc.

#### 4.4 Exercises

**4.4.1** Nakamura, Hamine. Way of thinning of Eastern people: India, China, Tibet and Japan, a

report Number Building

Philosophy of civilization 130.2 Eastern Region (1-11)

Report (047) as common auxiliary of form (p.11)

Class Number 130.2 (1-11) (047)

**4.4.2** Existentialism and Education

Number Building

Philosophy of Existentialism 141.32 Education 37

Class Number **141.32:37** 

**4.4.3** English- Hindi Encyclopedia of Experimental methods and instrumentation in

psychology.

Number Building

Experimental Psychology 159.9.07

Encyclopedia (03) common auxiliary of Form (p.11)
English =20 common auxiliary of Language (p.11)
Hindi =914.3 common auxiliary of Language (p.11)

Class Number 159.9.07 (03)=20=914.3

**4.4.4** Symposium papers on 'Science and Child Mental Development'

Number Building

Comparative Psychology 159.922.7

Science 5 Symposia (082.2)

Class Number **159.923:5 (082.2)** 

**4.4.5** Ethic and morality among Indian people of USA

Number Building

Ethic and Morality 17.02

Indian (=914) common auxiliary of Race and Nationality

(p.21)

USA (73) common auxiliary of Place (p.21)

Class Number 17.02(73) (=914)

**4.4.6** Cannon, Walter B. Bodily changes in pain, hunger, fear and rage: an account

of recent researches into the functions of the emotional excitement.

Number Building

Psychology of emotions 159.942
Bodily pains 612.88
Scientific 5

Research .001.5 point of view number (p.23)

Class Number 159.942:612.88:5.001.5

**4.4.7** Motivation to work: A manual to psychology workers

Number Building

Will/Motivation Psychology 159.947 Workers 658.3-05

Manual (02) common auxiliary of Form (p.11)

Class Number 159.947:658.3-05 (02)

**4.4.8** Nomenclature and standards of the Psychoanalysis and Psychotherapy

Number Building

Psychoanalysis 159.964.2 Psychotherapy 615.851

Nomenclature and standards (083.7) common auxiliary of Form (p.12)

Class Number **159.964.2:615.851 (083.7)** 

**4.4.9** IQ and physiographic racial differences of the Greek nationals in Turkey

Number Building

Ability testing in Psychology 159.98

Physiographically of Greeks (=1.495) common auxiliary of Race and Nationality (p.21)

Turkey (496.1) common auxiliary of Place (p.17)

Class Number **159.98 (496.1) (=1.495)** 

**4.4.10** A bilingual dictionary of Logic of scientific discovery

Number Building

Logic 16 Science and Knowledge 001

in general

Science 5

Research .001 point of view number (p.23)

Dictionary (038)

Bilingual =00 common auxiliary of Language (p.11)

Class Number 16:001: 5.001(038)=00

4.4.11 Pyzelecki, Mariam and Wejcicki, Ryszard. 25 years of logical methodology in

Poland: 1950-1975. Number Building

Logic 16 Methodology 005 Poland (438)

1950/75 "1950-1975"

Class Number 16:005(438) "1950/1975"

4.4.12 Directory of Symbolic Logic and the Game of Logic

Number Building

Symbolic logic 164
Mathematical puzzles 518.9

Directory (058.7) common auxiliary of Form (p.11) Class Number **164:518.9 (058.7)** 

# 4.5 Further Readings

- **1. BATTY (David)**. The Universal Decimal Classification. In Encyclopedia of Library and Information Science. Vol.32. New York: Marcel Dekkar. P 125-146.
- **2. BOSE (H).** Universal Decimal Classification: Theory and practice. New Delhi: Sterling Publishers. 1990. Pp. 192
- **3. FOSKETT (A C).** Universal Decimal Classification. London: Clive Bingley. 1973. P172.
- **4. FOSKETT (D J).** Trends in research on UDC. Library Science With Slant to Documentation. 16(June); 1979; 62-64.
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- 7. RAJU (AAN). Universal Decimal Classification. Madras: TR Publications. 1991. Pp 234
- **8. SARDANA (JL) and SEGHAL (R L).** Universal Decimal Classification: Structure and Methodology. New Delhi: ESS ESS Publications. 1983. Pp208.
- **9. SATYANARAYAN (VVV).** Common auxiliaries in UDC and common isolates in CC: A comparative study in their practice. IASLIC Bulletin. 22 (2); 1977:77-84.
- 10. Universal Decimal Classification. Abridged English Edition. Ed. 3. BSI: 1000A: 1961.

Lesson No.: 1.5 Author: K.P. Singh

#### SOCIAL SCIENCES

#### Structure

- 5.0 Learning Objectives
- 5.1 Scope of the Subjects
- 5.2 Summary of the Social Sciences Class
- 5.3 Details of the Class
- 5.4 Exercises
- 5.5 Further Readings

# 5.0 Learning objectives

The social science is the ultimate class, which deals with the entire aspects of sociology and social structure. The chapter gives a comprehensive detail study of the coverage, summary, details of the social sciences class and selective practical exercises. After reading this chapter you will be able to:

- know the scope of subjects and details of the principal classes under the Social Sciences;
- know the summary of the Social Sciences;
- construct complex and compound class numbers in the respective classes;
- make class numbers of the titles as given under the class; and
- do self exercises and checked your answer

# 5.1 Scope of the subjects

The Social Sciences as sciences are younger than the biological or physical sciences. This group is quite different from the physical or biological science in so far as the application of various tests for their being science are concerned. The social sciences deal with group activities and achievements. The inclusion of various subjects under its umbrella is influenced by many factors such as the curricula of the universities, the decisions of different social science organizations with regard to the spectrum of the subjects covered by them, etc. The core subjects included are: Economics (Political Economy), Political Science (Government, Politics), Psychology (in part i.e. social aspects only), Social Anthropology or Ethnology (Folklore, Culture, etc.), History, Education, Law, Statistics (methods), Sociology, Social Work and Demography. History is now being included in another broader group known as historical sciences because of the developments in the subject.

The scope of the individual subjects and the details of the class have been discussed in the subsequent sections. The class 3 in the UDC includes Sociology, Statistics, Political Science. Economics, Law, Public Administration, Social Welfare, Education, Commerce and Social Anthropology as the core subjects under the main divisions of 3. Psychology has

been covered under 159.9. History and Geography under the class 9. Demography, International Relations claim to be considered as independent disciplines have been provided subordinate place under 31 and 32 respectively. Military Science and Defence have also been included in the class 3. The detail ye been indicated schematically in the next section.

#### 5.2 SUMMARY OF THE SOCIAL SCIENCES CLASS

- 30 Sociology. Sociography
- 31 Statistics
- 32 Political Science. Politics. Current Affairs
- 33 Political Economy. Economics
- 34 Jurisprudence. Law. Legislation
- 35 Public Administration. Administrative Law. Military Science and Defence
- 36 Social Relief and Social Welfare. Insurance
- 37 Education
- 38 Commerce. Trade. Communication
- 39 Ethnography. Custom and Tradition. Folklore. Social Anthropology

## 5.3 Details of the Class

Sociology is the science, which studies the origin, development, organisation and the functions of the human society. It deals with social institutions, social relations, social processes. All these aspects have been covered under the class 301 and its subdivisions. Social reforms and such other social questions have been broadly grouped under 304. Social geography and sociography under 308.

The division 31 is devoted to Statistics. Actually 31 deal with data and numerical facts, which is statistics. The statistical methods deal with the collection, classification, analysis and interpolation of numerical facts. These have been included under the division 311. The theoretical and mathematical aspects have been classed under mathematics i.e. 51. Demography—the science of vital and social statistics, as of births, deaths, i.e. statistics of morbidity, marriage, etc. have been included under 312 and 313. The places 314/319 have been kept vacant.

The next division 32 is used for Political Science—the science of politics or of the principles and conduct of Government. It is, therefore, concerned with the description and analysis of political institutions especially governmental institutions and processes. Various aspects covered under 321/329 are therefore: The State and Society 321; the state and the churches 322; Internal Politics, political action—unrest, revolt, civil war, party loyalty, etc. under 323; Elections 324; Immigration, Emigration, colonization, refugees and repatriation of emigrants under 325:, Slavery and its abolition 326. Foreign affairs, International relations 327, Parliament, Cabinet formation and resignation under 328. The Party system, political parties in different countries and the party organisation are all covered under 329.

The division 33 is used for Political Economy or Economics. The term political economy was used for Economics during 17th and 18th century. It deals with political

policies and economic processes and their interrelations and concerned itself with the art of management of communities especially as affecting the wealth of the Government. Economics is now considered as a science, which deals with principles, laws, systems that affect the production, distribution and consumption of goods and services, or the material welfare of the mankind. General principles and systems have been covered under 330.1. Labour, industrial relations, wages, categories of labour, employment and unemployment in general and of the skilled and qualified worker, conditions of work are all classed under the subdivisions of 331. Finance has been divided as private finance and public finance. Banking, Loan institutions and private loan, Exchange and currency, interest and credit, as part of the private finance have been included under 332. The public finance or state finance includes. Budgets, Fiscal measures, taxation, public debts and public loans. It has been covered under 336. The real estate i.e. land and property whether private or public has been covered under 333. The division 334 is devoted to cooperative movement. The socialist movements including Pre-Marxist, Marxism, etc. have all been covered under 335. Free trade, protection, import and export duties, trade agreement are classed under 337. Another major aspect is the Production or creation of wealth and economic situation within a country. These subjects are classed under 338. The various aspects covered are: Forms of production, Price and value, organisation of production, factors of production and the form of economy including economic planning and control. The subdivision 339 deals with distribution, consumption and conservation of wealth or goods and includes various aspects as prosperity, poverty, national income, and controlled distribution systems, etc.

Jurisprudence, Law in general, Legislation and internal law have been provided the division 34. The subject of law deals with principles and regulations established by a government and applicable to a people whether in the form of legislation or of customs and policies recognized and enforced by judicial decision. To study law is jurisprudence. Various kinds and forms of law such as Natural law, Statute Law are classed under 340.1, International law under 341. Public law and the Constitutional law including subjects as Power of Parliament, Human rights, Citizenship, Electoral law are covered under 342. Criminal law and Penal offences have been provided two places: 343 and 344. The division 343 covers the application in general and that for the special classes such as military is covered under 344. The private law including Tort, Family law being classed under 347.11.6; the commercial law under 347.7; the procedural aspects and courts under 347.9. The ecclesiastical and Economical law under 348. The class 349 having been kept vacant.

The division 35 is assigned to Public Administration, Military science and Defence. The Civil Services, Government legislation with regard to sources of revenue for public properties etc. are included in 351. The administration at different levels—local, regional/state and control is covered under 352/354.

The Military Art and Science which does not belong to this division has, however, been provided under the subdivisions 355. Various aspects included under 355/355.8

34

are History and the art of War, Army/navy life, recruitments, training, mobilization and general organization of the Forces, operations of War, military administration. The Fighting Services—Army, (Infantry, Cavalry, Signals), Air force and Navy have all been classed under 356/359.

Social relief, and welfare have been provided the division 36. Insurance is considered to be part of Social relief and welfare activity. This division includes aspects such as: Charity; relief or aid in earthquakes, floods, war, epidemic etc.; Welfare activities—medical, help to destitute and aged, youth welfare, Social work. Movement for Social reform are covered under 363/367. Youth movement, patriotic and similar movements are, however, classed under 369. Insurance of life, things real estate, transport, social, agricultural, etc. are classed under 368.

Another important discipline covered under Social Sciences is Education. It has been provided the place 37. It deals with Training, instruction or imparting or acquiring of knowledge, skills—general, special and professional and developing the powers of reasoning and judgement.' The process can be carried at different levels, and ways—formal/non-formal at School, college and university level. Teaching, School organization and educational systems are classed under 371. Education at different levels e.g. elementary, secondary and University are classed under (372), (373) and (378) respectively. Continuing Education, adult education under 374, other organizational matter e.g. relation between school and public authorities under 379. The classes 375, 376 and 377 have been left vacant.

Commerce, trade and communications are classed under 38. This division includes inland (home) trade, foreign or international trade. Communication and transport have been provided under the division 383/388. Standardization and metrology have been placed under 389. The class 39 includes social anthropology, Customs, Manners, Folklore, etc.

#### 4. **Exercises**

5.4.1 Scientific research in British universities and colleges: Social science. London: HMSO, 1970

Number Building

Social Science 3

Research .001.5 Point of View Number (p.23)

University and College Education 378

British (420) common auxiliary of place (p.15)

Class Number 378: 3.001.5 (420)

5.4.2 The Commonwealth conference on Slaves in South Africa held in 1998.

Number Building

Commonwealth conference 061.3(41-44)

Slaves 323.34

South Africa (680) common auxiliary of place (p.19) 1998 "1998" common auxiliary of time (p.22) Class Number 323.34 (680): 061.3(41-44): "1998"
Alternate Class Number 061.3(41-44): 323.34 (680) "1998"

5.4.3 Death statistics of cancer patients in the Developing countries: A UN Report for the period 2003-2005

Number Building

Death statistics 312.2 Cancer patients 616-006.6

Developing countries (1-77) common auxiliary of place (p.13) Report (047) common auxiliary of form (p.11)

2004-2005 "2004-2005"

Class Number 312.2: 616-006.6(1-77) (047) "2003/2005

5.4.4 Ministerial Meeting of the GATT (General Agreement on Tariffs and Trade) held

at Uruguay in 2001 Number Building

Foreign trade policy 382.14 International organization 061 (100)

GATT 061(100) GATT (to be got by alphabetical device)

Uruguay (899) common auxiliary of Form (p.20)
2001 "2001" common auxiliary of Time (p.22)
Class Number 382.14: 061(100) GATT (899)"2001"
Alternate Number 061(100) GATT: 382.14(899)"2001"

5.4.5 International conference on human rights of female held at New Delhi from

12<sup>-</sup> 15<sup>th</sup> March 2005 Number Building

Human Rights 342.7

Female -055.2 common auxiliary of Persons taken from the

Schedules of Social Sciences (p. 36). These numbers are not given in the common auxiliary tables. Therefore, are taken from the above class

International conference 061.3(100) New Delhi New Delhi (AD) 12-15<sup>th</sup> March 2005 "2005.03.12/15"

Class Number **342.7-055.2: 061.3(100) New Delhi "2005.03.12/15"** 

5.4.6 Comparative study of laws relating to the political detainees in India and Nepal

Number Building

Political Detainees 343.819.7 India and Nepal (540:541.35)

Class Number **343.819.7(540:541.35)** 

5.4.7 Fundamentals of social education scenario in Britain and India, issues practices and perspective: A bibliographical study

Number Building

Fundamental Education 37.018.8 Bibliographical study 016 Britain and India (410:540)

Class Number **016:37.018.8 (410:540)** 

5.4.8 Voluntary Migration of Indian computer professionals from India to USA in recent

time

Number Building

Migration 325.252

Computer professionals 681.3.007.2 (.007.2 is a special auxiliary numbers to be

taken from the man power given in the point of view

(p.26)

Indian (=914) common auxiliary of Race & Nationality

(p.21. Note these numbers further to be sharpened as language numbers of the common

auxiliary of Languages, p.11)

India and USA (540:73)

Recent time "312" common auxiliary of Time (p.22)

Class Number 325.252: 681.3-.007.2(540:73) "312" (=914)

5.4.9 Role of women in adult education in Indian subcontinent after independence:

A Documentation list Number Building

Adult Education 374.7

Women -055.2 special auxiliary numbers to be taken from

the social characteristics of persons given in the

class 3 of Social Sciences (p.36)

Documentation list 016 India (540)

Independence (1947) "1947" common auxiliary of Time Class Number **016:374.7-055.2 (540) "1947:713"** 

5.4.10 Community development programs in India and Pakistan after independence:

An administrative report

Number Building

Community 301.18

Development .001.6 common auxiliary of Point of View Numbers

India and Pakistan (540: 549)

After Independence (1947) "1947 : 713" common auxiliary of Time (p.22) Report (047.3) common auxiliary of Form (p.11)

Class Number **301.185.001.6(540: 549) "1947:713" (047.3)** 

# 5.5 Further Readings

**BATTY (David)**. The Universal Decimal Classification. In Encyclopedia of Library and Information Science. Vol.32. New York: Marcel Dekkar. P 125-146.

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- **2. BOSE (H).** Universal Decimal Classification: Theory and practice. New Delhi: Sterling Publishers. 1990. Pp. 192
- **3. FOSKETT (A C).** Universal Decimal Classification. London: Clive Bingley. 1973. P172.
- **4. FOSKETT (D J).** Trends in research on UDC. Library Science With Slant to Documentation. 16(June); 1979; 62-64.
- **5. MILL (J).** Modern Outline of Library Classification. Bombay: Asia Publishing House. 1962.
- **6. MILL (J).** Universal Decimal Classification. New Jersey, VI Rutgers Graduate School of Library Science. 1964. Pp 132
- 7. RAJU (AAN). Universal Decimal Classification. Madras: TR Publications. 1991. Pp 234
- **8. SARDANA (JL) and SEGHAL (R L).** Universal Decimal Classification: Structure and Methodology. New Delhi: ESS ESS Publications. 1983. Pp208.
- **9. SATYANARAYAN (VVV).** Common auxiliaries in UDC and common isolates in CC: A comparative study in their practice. IASLIC Bulletin. 22 (2); 1977:77-84.
- 10. Universal Decimal Classification. Abridged English Edition. Ed.3. BSI: 1000A: 1961.

Lesson No.: 1.6 Author: K.P. Singh

#### LINGUISTICS AND LITERATURE

#### Structure:

- 6.0 Learning Objectives
- 6.1 Scope of the Class
- 6.2 Summary of the Linguistics and Literature
- 6.3 Details of the Classes
- 6.4 Exercises
- 6.5 Further Readings

# 6.0 Learning objectives

This chapter includes two disciplines namely, Linguistics and Literature, which are combined together as conceptually they are very close to each other. The chapter gives a comprehensive detail study of the coverage, summary, details of the Linguistics and Literature class and selective practical exercises. After reading this chapter you will be able to:

- know the scope of subjects and details of the principal classes under the Linguistics and Literature;
- know the summary of the Linguistics and Literature;
- construct complex and compound class numbers in the respective classes;
- make class numbers of the titles as given under the class; and
- do self exercises and checked your answer

# 6.1 Scope of the Class

## 6.1.1 Philology, Linguistics and Languages

The class 4 is used for all forms of verbal expression and use of words in human thought. It is devoted to individual languages and their science. The individual languages have been assigned to 42/49 whereas the philosophy of the language, origin and linguistics have been assigned to the classes 401/4 19. The three different aspects covered under the division 4 are Languages, Linguistics and Philology. The language as is commonly understood is a body of words and systems used to communicate intelligibly with one' another. It is generally communication by voice, which makes use of~ certain auditory symbols in conversation and these carry conventional meanings. The language of the deaf and the mute, the animals, etc being different from the one used by individuals in any nation or any geographical area. The study of the written records, their authenticity, the original form and their meanings, etc are all studied under philology and this is sometimes termed as linguistics. However linguistics is a science of language including phonetics, phonology, morphology and

syntax. Linguistics is often divided into historical and descriptive linguistics.

In the UDC, the linguistics has been transferred under class 8 alongside literature i.e. 8.07 where it is affixable to specific language numbers 82/89, e.g. Russian philology, linguistics 882.07. The class 4 was actually freed by the decision of CCC of 23 September 1962.

The schematic presentation after class 'Philology, Linguistics and Languages' is given on the next page.

# 6.2 Summary of the Linguistics and Literature

## 6.2.1 Philology, Linguistics and Languages

- 41 Philology and Linguistics in General
- 42 Western Languages in General
- 43 Germanic Languages. German, Dutch, etc.
- 44 Romanic Languages in General. French
- 45 Italian, Roumanian, etc.
- 46 Spanish, Portuguese, etc.
- 47 Latin and Greek
- 48 Slavonic Languages. Baltic Languages
- 49 Oriental, African and Other Languages

#### 6.2.2 Literature and Belles Letters

- 80 Generalities, Rhetoric and Criticism
- 82 Literature of Western Countries, English Literature
- 83 Germanic Literature: German, Dutch and Scandinavian
- 84 Romanic Literature. French Literature
- 85 Italian Literature, Roumanian Literature
- 86 Spanish Literature. Portuguese Literature
- 87 Classical, Latin and Greek Literature
- 88 Slavonic Literature. Baltic Literature
- 89 Oriental, African and Other Literature

## 6.3 Details of the Classes

# 6.3.1 Philology, Linguistics and Languages

The division 40 and 41 are devoted to general questions and general philology. Philosophy of language and origin and development, history have been assigned to 401 whereas kinds of languages and dialects to 408. Special means of thought communication such as sign languages, mime, gestures, etc. have all been devoted to 409. The Class 41 deals with general philology and linguistics. It includes orthography, parts of speech, lexicography, phonetics, grammar-philosophic and historical aspects, metrics, criticism and the study of sources of philology. The divisions 42/49 have been assigned to the specific languages. The details of which have already been indicated in the earlier section i.e. Schematic presentation of the class.

#### 6.3.2 Literature and Belles Letters

The term Literature, Belles-Letters refers to the artistic writings worthy of being remembered. In general terms the term literature is meant to cover the writings having permanent and universal value because of their intrinsic excellence. These writings may be in any form and may be in any language in prose, verse. Such writings may be of individual authors or collections.

The class assigned to literature is the synthetic class in the UDC. The Language facet has been enumerated in the divisions 82/89. The various forms of literature have been given as -1/-8 and the history of literature 8(091) i.e. from the tables of common auxiliaries. Literary science and techniques have been provided under the special auxiliaries .01/. 09; and the periods from the common auxiliary tables of time. No facet formula has been prescribed but the use of: Literature Language-Period-Author is most suitable.

The class 4, as stated earlier, has been abandoned. Linguistics and Literature are brought together by means of special subdivision .07, which is also attachable to any specific language number under 82/89. Thus: Philology, linguistics will get the number 8.07.

### 6.4 Exercises

# **6.4.1** Hindi Grammar for LIS Professionals

Number Building

Hindi Language 491.43 Grammar 415 Library & Information Science 02

LIS Professionals 02-.007.1

Class Number **491.43:415: 02-.007.1** 

## **6.4.2** Russian - Hindi Dictionary of Scientific terms

Number Building

Russian Language =82

Hindi =914.3 common auxiliary of Language (p.11)

Scientific 001.4

Dictionary (038) common auxiliary of Form (p.11)

Class Number **001.4 (038)=82=914.3** 

# 6.4.3 American and Indian English: A Handbook of Usage of Pronunciation

Number Building

English Language 420 Pronunciation 411

American and Indian (73+540) Class Number **411:420 (73+540)** 

### **6.4.4** Proceedings papers of the 6th International conference on Historical Lexicography

Number Building

Lexicography 413

Proceedings papers (061.3) common auxiliary of form (p.12) Historical (09) common auxiliary of form (p.12)

Proceedings papers & Historical (061.3) (09)

Class Number 413 (09): 061.3 (100) (061.3) or

**6.4.5** Bengali Dialects Studies: A selected bibliography **413:061(100).3(063+09)** 

Number Building

Bengali Language 491.44 Dialects -087

Bengali Dialects 491.44-087

Bibliography 016

Class Number 491.44-087: 016
Alternate Class Number 016: 491.44-087

**6.4.6** A critical appraisal of Idealism Telgu Poetry

Number Building

Telgu Literature 894.83 (derived from Language schedule, p.59)

Poetry -1
Telgu Literature Poetry 894.83-1
Idealism 17.03

Class Number **894.83-1: 17.03** 

**6.4.7** Namak ka Daroga: A Novel by Munsi Premchand

Number Building

Hindi Literature 891.43
Novel -31
Hindi Novel 891.43-31

Pemchand Prem (got by alphabetical device)

Namak ka Daroga 7 Namak ka Daroga

Class Number 891.43-31Premchand 7 Namak ka Daroga

**6.4.8** Myth and Realities: The Hindi American Novel from the twenties to our time

Number Building

Hindi Literature 891.43 America (73)

American Hindi 891.43 (73)

Novel -31

Twenties to our time "192/199"

Class Number **891.43 (73)-31 "192/199"-7 myth and reality** 

**6.4.9** Punjabi and Punjab: A National Seminar held at Department of Punjabi, Punjabi

University, Patiala during 2003

Number Building

Punjabi Literature 891.4P National Seminar 061.3 (540) 2003 "2003"

Class Number **891.4P: 061.3 (540) "2003"** 

**6.4.10** Proceedings of the National Symposium on Machine Translation held at DESIDOC, a LIS based Institution of Defence Research and development Organisation (DRDO) from 2<sup>nd</sup> to 7<sup>th</sup> February 2004

Number Building

Translation 8.03
Machine for translation 681.177.7

Machine Translation 8.03: 681.177.7

Symposium Papers (082.2) common auxiliary of Form (p.12)

2<sup>nd</sup> to 7<sup>th</sup> February 2004 "2004.02.2/7"

Class Number 8.03: 681.177.7"2004.02.2/7" (082.2)

## 6.5 Further Readings

**BATTY (David)**. The Universal Decimal Classification. In Encyclopedia of Library and Information Science. Vol.32. New York: Marcel Dekkar. P 125-146.

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- 10. Universal Decimal Classification. Abridged English Edition. Ed. 3. BSI: 1000A: 1961.

Lesson No.: 1.7 Author: K.P. Singh

#### MATHEMATICS AND NATURAL SCIENCES

#### Structure:

- 7.0 Learning Objectives
- 7.1 Scope of Mathematics and Natural Sciences
- 7.2 Outline of Mathematics and Natural Sciences
- 7.3 Details of Mathematics and Natural Sciences
- 7.4 Exercises
- 7.5 Further Readings
- 7.0 Learning objectives

The Mathematics and Natural Sciences is essentially 'knowledge', directly concerned with human understanding of the real world around the inherent properties of space, environment, matter, energy and their interaction. It is the concomitant of the inquiring mind, wanting to unravel the mysteries of nature, unbiased, fearless and free. The chapter gives a comprehensive detailed study of the coverage, summary, details of the Mathematics and Natural Sciences class and selective practical exercises. After reading this chapter you will be able to:

- know the scope of subjects and details of the principal classes under the Mathematics and Natural Sciences;
- know the summary of the Mathematics and Natural Sciences;
- construct complex and compound class numbers in the respective classes;
- make class numbers of the titles as given under the class; and
- do self exercises and checked your answer

### 7.1 Scope of the Mathematics and Natural Sciences

The Mathematics and Natural Sciences is one of the major parts of the universes of the science knowledge. It covers Mathematics, Astronomy, Physics, Chemistry, Geology, Geophysics, Metrology, Palaeontology, Anthropology, Biology, Biochemistry, Botany and Zoology. The applied part of the sciences is covered comprehensively under the class no. 6

### 7.2 Outline of the Mathematics and Natural Sciences

- 51 Mathematics
- 52 Astronomy, Surveying and Geodesy
- 53 Physics and Mechanics
- 54 Chemistry, Crystallography, and Mineralogy
- 55 Geology and Metrology
- 56 Palaeontology

- 57 Biology and Anthropology
- 58 Botany
- 59 Zoology

## 7.3 Details of the Mathematics and Natural Sciences

Mathematics and its various branches are covered under the division 51. It is a science that deals with the systematic treatment of magnitude, relationships between figures and forms relations between quantities expressed symbolically and includes procedures, operations, properties and the solution of quantitative problems. Various branches included herein are: Arithmetic, Theory of numbers 511; Algebra 512; Trigonometry including determinants and matrices; Geometry 513; Polygonomenty and Polygonomentry 514; Descriptive geometry 515; Analytic and Coordinate geometry 516; Calculus—Differential and Integral and differential and partial differential equations 517; Mathematical games and various computing aids 518; Statistical Analysis and Probability 519

The division 52 is concerned with Astronomy and surveying. Astronomy is a science that deals with the material universe beyond the earths atmosphere. The subjects included are: theoretical astronomy including celestial mechanics description of orbits, orbital motion of planets and satellites, motion of comets. eclipses, aberration and precession, etc: Practical astronomy, descriptive astronomy including Astrophysics; Earth in relation to astronomical geography and its various aspects (e.g. constants, physics of the globe, orbit and motions of the earth, seasons, tides and terrestrial atmosphere) Navigation, Geodesy, to 528. Geodetic surveying, Plane, field, land, and topographical surveying, geodetic instruments and equipment, photogrammetry, cartography and chronology are the subsections of geodesy and surveying, etc.

The division 53 covers Physics and Mechanics. Physics is a science that deals with matter, energy, motion and force and their interaction. This division includes various aspects and subdivisions such as: principles and methods of measurements, Theory of Relativity, Quantum theory, etc; Mechanics 531, including statics and dynamics, friction, gravitation, etc.; Fluid mechanics 532; Gas mechanics 533 included herein are Plasma Physics, Aerodynamics, and Kinetic theory of gases; Accoustics vibrations and sound 534; Optics 535- theories of light, Photometry; Absorption and emission of light, interference—diffraction, polarization, and optical instruments; Heat and Thermodynamics 536—Heat transference, thermometry, calorimetry, energy, etc; Electricity 537—static and dynamic i.e. electrostatics and current electricity, electric discharges and electrical measurement; Magnetism and Electromagnetism 538; Physical nature of matter 539 which includes nuclear, atomic and molecular physics.

Chemistry has been assigned the class 54 but actually the subdivision 541/547 are concerned with chemistry and Various states of substance, their occurrence and physical and chemical properties have been covered under the class 54 and its special auxiliaries. The last two subdivisions viz. 548/549 deal with Crystallography

and Mineralogical science. Chemistry is a science that deals with or investigates the composition, properties and transformations of substances and various elementary forms of matter. The most important branches being Physical Chemistry, Inorganic Chemistry, and Organic Chemistry. The division 541 is used for theoretical and physical chemistry. It includes Electrochemistry, Atomic theory, chemical compounds, Valency, Chemical structure, Allotropy and classification of elements. The experimental aspects including laboratory equipment and technique are provided for under the division 542. The division 543 is devoted to Analytical Chemistry.

The various instructions provided in the division 54 are of great significance and help in the methodology of joining different divisions and special auxiliaries. Their use has been explained in different examples. The division 544 and 545 that was there in the earlier edition of the UDC have now been grouped under 543. The division 546 is assigned to Inorganic Chemistry, where subsections are devoted to non-metals. These have been arranged according to the periodic table and fall in different groups. The division 547 is used for Organic Chemistry. The various subdivisions include aliphatic compounds, unsaturated alkene and alkine compounds; polysubstituted acyclic compounds, ring compounds, multiring compounds, Hetrocyclic compounds and other natural substances of unknown composition.

Crystallography and mineralogical sciences as pointed out earlier have been covered under 548/5 49. Crystallography is the science dealing with crystallization and the forms and structure of crystals. Mineralogy deals with the study of minerals—i.e. the substances occurring in nature. Such substances usually comprise of inorganic substances as quartz or feldspar and usually have a definite crystal structure. These may sometimes include substances or products of organic origin. These divisions, therefore, cover various aspects as theories, formation, structure, etc.

The division 55 deals with Geology and Meteorology. Geology is the science that studies the physical history of the earth, the rocks of which it is composed and the physical changes which the earth has undergone or is undergoing. It also studies the geologic features and processes occurring in the earth or any of its regions or on celestial body. Meteorology on the other hand is a science that deals with the atmosphere and its phenomenon including weather and climate. The various branches covered under the division include, therefore, subjects like: Geophysics 550, Geochemistry, Practical and applied geology; Meteorology 551, Origin of earth its structure and form, external geodynamics, glaciology, marine formations, etc., Petrography, Economic geology and minerals, ores, stones.

Paleontology—the science of the forms of life existing in former geologic periods as represented by fossil animals and plants has been assigned to the division 56.

The anthropological and biological sciences is a comprehensive field encompassing the general aspects and has been assigned the division 57. Anthropology has two main divisions— the physical, and social and cultural. The social and cultural has been provided for under 39. The science that deals with the origins, physical development is covered under this division. Biological sciences deals with the science of life or living matter (plant and animal life) in all its forms and phenomenon especially with reference to origin, growth, reproduction and structure. Various subjects included are therefore: Pre-historic man; Physical anthropology, Ethnology; Genetics—Development of organism, evolution; Microbiogical techniques used to study these subjects.

The division 58 has been assigned to Botany—the science of plants. It deals with plant life. The class 581 deals with general botany and plant biology. Systematic Botany, Plant taxonomy that includes the study of cryptogamia, phanerogamia, angiospermae and archichlamdeae, etc has been classed under the subdivisions of 582.

The division 59 has been assigned Zoology—the science that deals with animals. It deals with animal life, animal biology including animal physiology, diseases, embryology, organology—Anatomy, animal histology, cytology have all been classed under 591. Systematic Zoology animal taxonomy under 592/599. The various subjects covered include: Invertebrata; Parazoa, Coelenterata, Mollusca; Articulate, Anthropoda; Vertebrata, Pisces; Reptiles, Birds; and Mammals

### 7.4 Exercises

**7.4.1** International microcomputer dictionary. Berkeley: Sybex. 1981

Number Building

Microcomputer 681.3

International (100) common auxiliary of place from (p.13) Dictionary (038) common auxiliary of form (p.11)

Class Number 681.3 (100) (038)

**7.4.2** Regional plan of action for the application of computers in basics science for development in the Middle East

Number Building

Basic sciences 5

Computer science 681.3 (to be added with:)

Plans point of view .001.1 (p.24)

Economic policy 330.19 (to be added with:)

Middle East (5-011) common auxiliary of place from (p.17)

Class Number 5:681.3.001.1:330.19(5-011)

**7.4.3** Geological Survey of India, Annual Report for 2004-2005

Number Building:

Geological laboratory 550.89

Government Organization 061.1
Annual Report .055.5
National Organization 061(540)

Geological Survey of India GSI (got by alphabetical device)

Annual report (047) common auxiliary of form as report (p.11)
Class Number 550.89:061.1.055.5(540) GSI "2004-2005"

MLIS 207 (a)

7.4.4 Science and technology for the development of Indian universities in twenty

first century Number Building

Science and Technology 5/6

Development (from point of view) .001.6 (p.23)

Universities 378.4 (to be added with:)

India from common auxiliary of place (540)

in twenty first century common

auxiliary of time "21"

Class Number 5/6.001.6:378.4 (540) "20"

7.4.5 Conservation of wild life in the Tree Zones of Himalayas: A Journal published

by FRI, Dehradhun since 1978

Number Building

Wild life 502.7

Tree Zones of Himalayas (235.24) as common auxiliary of time (p.13)

Journal (05)

Class Number **502.7 (235.24) (05)** 

7.4.6 Directory of Indian Scientific Periodicals published by INSDOC (now known as

NISCAIR) in 1976 Number Building

Science & Technology 5/6
Periodicals (05)

Directory (058.7) common auxiliary of Form (p.11) India (540) common auxiliary of Place (p.17)

Class Number 5/6(05) (540) "1976" (058.7)

7.4.7 Bilingual dictionary of Marine biology

Number Building

Marine biology 57(26)

Dictionary (038) common auxiliary of Form (P.11)
Bilingual =00 common auxiliary of Form (p.11)]

(Note language is not specified therefore, polyglot. Multilingual

number has been taken)

Class Number 57 (26) (038) = 00

**7.4.8** English –Hindi dictionary of Marine biology

Number Building

Marine biology 57(26)

Dictionary (038) common auxiliary of Form (p.11) English –Hindi =20, =914 common auxiliary of Form (p.11)]

(Note language are specified

therefore, separate numbers has

been taken)

Class Number 57(26)(038) = 914.3 = 20

**7.4.9** Function of the Director 'National Botanical Research Institute, Lucknow (NBRI,

Estd. In 1956)' Number Building

Botany 58 (as the institute belongs to Botanical Sciences)

National Institute 061 (540)

National Botanical

Research Institute (NBRI) 061 (540) NBRI (obtained by alphabetical device)
Director .007.1 common auxiliary of Point of View

(p.24) Director treated as top personnel

(Note function number also given in the common auxiliary of Point of View Numbers. It is not used because better avoid the application of more point of view number and advise use only one appropriate point of view number, which is most suited. Therefore, Director as personnel number has been taken and functions are implied in it)

Class Number **58:061 (540) NBRI.007.1** 

**7.4.10** A national congress on 'Recent advances in research in Maas Spectrometry' held at Department of Chemistry, Punjabi University, Patiala from 3<sup>rd</sup>-5<sup>th</sup>

February 2005 Number Building

Mass Spectrometry 543.51

Recent advances (=research) .001.6 common auxiliary of Point of View Numbers

National congress 061.3 (540) 3<sup>rd</sup>-5<sup>th</sup> February 2005 "2005.03.3/5"

Class Number 543.51.001.6: 061.3 (540) "2005.03.3/5"
Alternate class number 061.3 (540): 543.51.0016 "2005.03.3/5"

**7.4.11** Recent report on the use of Thorium in nuclear weapons making in the North China

Number Building

Thorium 546.841 Nuclear weapons 623.454

Use .004.14 common auxiliary of Point of View Numbers (p.24)

North China (510-17)

Report (047) common auxiliary of Form (p.11)

Recent Class Number "312" common auxiliary of Time (p.22) **546.841.004.14: 623.454 (510-17) "312" (047)** 

## 7.5 Further Readings

- **BATTY (David)**. The Universal Decimal Classification. In Encyclopedia of Library and Information Science. Vol.32. New York: Marcel Dekkar. P 125-146.
- **2. BOSE (H).** Universal Decimal Classification: Theory and practice. New Delhi: Sterling Publishers. 1990. Pp. 192
- **3. FOSKETT (A C).** Universal Decimal Classification. London: Clive Bingley. 1973. P172.
- **4. FOSKETT (D J).** Trends in research on UDC. Library Science With Slant to Documentation. 16(June); 1979; 62-64.
- **5. MILL (J).** Modern Outline of Library Classification. Bombay: Asia Publishing House. 1962.
- **MILL (J).** Universal Decimal Classification. New Jersey, VI Rutgers Graduate School of Library Science. 1964. Pp 132
- 7. RAJU (AAN). Universal Decimal Classification. Madras: TR Publications. 1991. Pp 234
- **8. SARDANA (JL) and SEGHAL (R L).** Universal Decimal Classification: Structure and Methodology. New Delhi: ESS ESS Publications. 1983. Pp208.
- **9. SATYANARAYAN (VVV).** Common auxiliaries in UDC and common isolates in CC: A comparative study in their practice. IASLIC Bulletin. 22 (2); 1977:77-84.
- **10. Universal Decimal Classification.** Abridged English Edition. Ed.3. BSI: 1000A:

Lesson No.: 1.8 Author: K.P. Singh

### APPLIED SCIENCES AND TECHNOLOGY

#### Structure

- 8.0 Learning Objectives
- 8.1 Outline of the Classes
- 8.2 Details of the Applied Sciences and Technology
- 8.3 Exercises
- 8.4 Further Readings

## 8.0 Learning Objectives

The socio-economic development is closely related to and dependent on the scientific and technological development and their rational use and application. The chapter gives a comprehensive detail study of the coverage, summary, details of the Applied Sciences and Technology class and selective practical exercises. After reading this chapter you will be able to:

- know the scope of subjects and details of the principal classes under the Applied Sciences and Technology;
- know the summary of the Applied Sciences and Technology;
- construct complex and compound class numbers in the respective classes;
- make class numbers of the titles as given under the class; and
- do self exercises and checked your answer

# 8.1 Outline of the Class

- 61 Medical Sciences, Health and Safety
- 62 Engineering and Technology General
- 63 Agriculture, Forestry, Stockbreeding and Fisheries
- 64 Domestic Science, and Household Economy
- 65 Management, Organization, Commercial, Office, Business Technique
- 66 Chemical Industry and Chemical Technology
- 67 Manufactures, Industries and Crafts
- 68 Specilised Trades, Crafts and Industries
- 69 Building Industry, Materials, Trades and Construction

# 8.2 Details of the Applied Sciences and Technology

The division 61 and its subdivisions are devoted to the medical science. The subject deals with the art and science of restoring, preserving health and physical condition. The diseases may be cured by treating them with drugs as curative substances and in certain cases surgery may have to be performed. Various aspects covered under this division are therefore: Anatomy both systematic and special under 611.1/8, the

regional anatomy having been assigned 611.9; Physiology under 612. The general theories and principles being classed under 612.01 and its subdivisions, and special physiology including that of the blood and circulation system; Respiration; Digestion and Nervous system under 612.1/. 8. General and personal health has been assigned 613 and Public health and safety having been assigned the number 614. Some of the important aspects covered under this area are: Food, Drugs, Health and sanitary inspection, prevention of infection, disposal of the dead—air, soil and water hygiene, etc. The subjects of Pharmacy, Pharmacology, therapeutics and toxicology have been assigned to the class 615. The division 615.6 being vacant. The division 616 and its subdivisions are used for diseases; pathology and medicine. The sections 6 16.1/.8 are devoted to special pathology— such as cardiovascular and blood diseases, respiratory diseases of haemopoietic and endocrine systems, skin diseases and dermatology, etc. The last subsection 616.9 includes infectious diseases and specific infectious fevers, venereal diseases and specific infections. The division 617 and its subdivisions cover surgery and related topics. The division 618 and its subdivisions are used for gynaecology and obstetrics. The last section 619 is assigned to comparative pathology.

The Engineering and Technology have been assigned to the class 62 and its subdivisions. The subject of Engineering deals with the art or science of making practical application of the knowledge of pure science such as Physics, Chemistry, etc. Whereas Technology is that branch of knowledge that deals with industrial arts, applied sciences and engineering. The application of this knowledge is for practical ends. This aspect has been scattered in the UDC under 62, 66, 67 and 68 etc. The UDC makes extensive use of special auxiliaries. The divisions 620.1/9 cover various aspects such as material testing, economics of energy.

Division 621 is used for Mechanical and Electrical Engineering. Included in the class 621.1: are steam engines, working of steam plants, and steam boilers. Other aspects of waterpower covered are water wheels and hydraulic power plants 621.2. Electrical engineering has been assigned 621.3. Lengthy subsection of 621.3 includes general electrical engineering, Power supply, distribution 'and control, electric machines, transformation, switchgear, instruments and indicators, applied magnetism, applied electrostatics, electric lamps and traction, thermo-electricity, techniques of electric and electromagnetic waves, electronics, telecommunications, telegraphy, telephony, radio, communication, television and tale control. Other important subsections include internal combustion and other special engines pneumatic energy and tools and mechining, etc. The division 622 is used for mining and mineral dressing and specific aspects of mining and minerals such as preliminary investigation, mining operations, specific minerals, mine services, mine water, haulage and handling, mineral dressing and safety and health protection in mines, etc, The next division 623 is for military, naval engineering and technology. Civil and structural engineering is devoted to the division 624. The instruction indicates that general works are classed under 624 and the division .01,.04,.07 for all structures by use of .02/.03 and .05 is preferred at 69. The primary topics here are

structural engineering, (e.g. earthwork, foundations, snow and ice engineering, abutments, tunnels and tunnelling. Subsections 624.2/9 cover superstructure and bridges. The division 625 and its subdivisions are used for railway and highway engineering. The section 626 is used for Hydraulic Engineering and construction work with subsection inland waterways, feeding, forms and cross section of canals, locks, ship lifting gear, haulage, agricultural hydraulics and maritime canals. Natural waters and channels are assigned to the class 627. The next division 628 is devoted to public health engineering. Some of the important subjects included here are water supply, town drainage, sewage, town sanitation, industrial sanitation, drainage, indoor climate engineering (large space, tunnels, arcades) health and comfort aspects; and illumination engineering. The last division of 62 i.e. 629 is used for Transport Engineering which includes subjects like road vehicles, shipbuilding, beats, aeronautical engineering, and astronautics, etc.

The division 63 is used for agriculture and related fields. The subject concerns itself with the science and art of cultivating land in the raising of crops, husbandry and farming. Its division 631 is devoted to general agriculture, agronomy and farming and more important subsections include farm management, agricultural implements, soil sciences, cultivation methods, rural engineering, fertilizers and agricultural influences. Plant injuries, plant diseases and pests have been covered under 632. The field crops and industrial crops nave been included under 633. The various subdivisions include cereals, forage, leguminous, roots, and tubers as field crops, fibre plants and crops, sugar and starch-yielding crops, stimulant-yielding plants, and various crops for industrial processing. The class 634 is concerned with arboriculture, gardens 634.11.8 is devoted to fruit growing. Horticultural gardens and gardening are the subjects, which have been covered under class 635. The divisions 636/639 cover animal husbandry, stock breeding, animal produce and fisheries. Stock breeding has been assigned to the 9lass 636. It includes livestock, domestic animals, pets and, therefore, covers horses, cattle, smaller ruminants, pigs, poultry, birds kept for plumage, dogs, cats, and other useful animals and pets. The insect and reptile management, beekeeping, silkworm, coccid insects, other insects (ant, grasshoppers and crickets), arachnids and, ornamental insects and reptiles have been covered under 638. Dairy and other animal produce and their related technologies have been covered under 637. The class 639 has been assigned to game and fish management. Covered here are hunting and shooting, fisheries, fish breeding, molluses and shell fish, crustaccans, various marine animals and plants products and breeding and keeping ornamental animals.

Division 64 encompasses domestic science, household economy, housekeeping, home and hotel management and catering, etc. Food and cookery includes nutritional aspects food according to source and season, preserving, cleaning, etc. These have been covered under 641. The class 642 provides for meals, and table service. The divisions 643/645 are devoted to the home and household equipments. Included in 643 are subjects like: site and surroundings, room size, kitchen, kitchen equipment,

dining and various ancillary rooms, bed rooms living rooms, etc labour having installments, care and upkeep of rooms, cellers, and attics. Whereas other aspects like heating, lighting, ventilation and water supply have been included under 644 and furnishing, coverings and fittings under 645. The division 646 includes clothing, and general appearance. Section 647 is assigned to household staff and hospitality. Laundering has been included under 648. The last division 649 covers home care of children, invalids and guests; included in this are all aspects of care of children.

Management, organisation of industry and commerce, communication and transport, and business have been assigned to the division 65. Office equipment, office practice, record document files and archives, office correspondence, etc. have been classed under 651. The division 652 and 653 are under change. The long distance and telecommunication services have been put under 654. The division 655 is used for printing, publishing and book trade, including subsections like typography and printing, printing surface, press work, and publishing and bookselling. The class 656 covers transport and postal services, with subdivisions like land, road, railway, water, and air transport. The next division of 65 i.e. 657, is assigned to Accountancy and bookeeping. Subjects covered are bookeeping systems and techniques, conduct of calculations, books and records for accounting, accounts and accounting operations, accountancy according to object, official control of accounts and valuation. The forms of business, works and shop management and techniques have been covered under 658. Some of the important subjects covered are Human relations, production management and control, commercial and trading business technique, and marketing. The last division is 659 and covers the mass communication media i.e. publicity, advertising and information.

The largest division of the division 6 is 66, which is assigned to chemical industry and chemical technology. The division 66.0 and its subdivision has been assigned to works on chemical engineering, which includes chemical processes, processes for specific industries, heat transfer treatment, working with liquids: handling, treatment working with gases, physical—chemical operations, and special chemical processes. The first section 661, deals with chemicals. Explosives including fireworks, high explosives, gun powders, detonators, etc. have been classed under 662.1/.4. Fuels, heating and combustion are covered under the class 662.6/.9. The division 663 is used for beverages and stimulants. Food industries and preservation have been classed under 664. Some of the important subdivisions are: sugar industry, starches, edible and cooking fats and oils, mineral foodstuffs, spices and condiments; baking, bread and flour confectionery, flour and corn milling, preservation of organic products, preservation of animal produces. Oils, fats and waxes, natural oil, fats, waxes and products made from these are the subjects covered under 665.1/.3, while 665.4/.5 cover mineral oils and petroleum. Glass and ceramic industries have been classed under 666. Various organic chemical industries have been assigned to 668. The last division i.e. 669 deal with metallurgy which deals with ferrous and non-ferrous metals their extraction, processing, etc.

The division 67/68 is assigned to manufactures, which includes industries and crafts based on processable materials, and specialized trades, crafts and industries for finished articles and goods. The subjects covered include: Jewellery 671; Iron, and steel goods 672; non-ferrous metal goods 673; timber and pulp 676; textile industry 677; rubber and plastics 678; and other industries based on various processable materials 679.

The division 68 is used for specialized trades, crafts and industries for finished articles and goods such as: Precision machines, optical apparatus, etc., smithery; Iron mongery; Furniture, upholstery; Foot wear, gloves, travel and other equipment, toilet articles, clothing industry; Fancy and decorative goods; toys; hobbies, and the book binding stationery have all been classed under 686.

The division 69 is the last section in this class, and covers building industry, materials, trades, and construction including all problems of building construction, contracting and site work. All phases of building activity are classified here.

#### 8.3 Exercises

**8.3.1** International microcomputer dictionary. Berkeley: Sybex. 1981

Number Building

Micro computer 681.3

International (100) common auxiliary of place (p.13) Subject dictionary/Glossary (038) common auxiliary of form (p.11)

Class Number **681.3 (100) (038**)

**8.3.2** Parker, Sybil P. McGraw-Hill English dictionary of electronic and computer technology. New York: McGraw-Hill. 1984

Number Building

Electronic 621.38 Computer 681.3

Subject dictionary/Glossary (038) common auxiliary of form (p.11) English language = 20 common auxiliary of language (p.11)

Class Number [621.38:681.3] (038)=20 Alternate class Number [681.3:621.38] (038)=20

**8.3.3** Effect of chemical fertilizers on the growth and development of rice varieties:

An experimental study in Punjab

Number Building

Rice cultivation 633.18 Chemical fertilizers 631.82

Experimental study 001.5 common auxiliary of Point of View

Punjab (545.2)

Class Number **633.18.182.001.5 (545.2)** 

**8.3.4** English –Hindi bibliography of research in strategic guided missile system of

the United Kingdom Number Building Guided missile system - 623.451-519

United Kingdom (41-4) as common auxiliary of place (p.14)

Bibliography 016 Research .001.5

English = 20 as common auxiliary of language (p.11)

Hindi = 914 as common auxiliary of language (p.11)

Class Number 016: 623.451-519.001.5 (41-4)=20=914

Alternate Number 016: 623.451-519.001.5 (41-4)=20=914

**8.3.5** Impact of informatics on vocational and continuing education in the rural India

during recent time Number Building:

Informatics

(Information work technique) 659.21 Vocational education 373.6

Rural India (540-2) common auxiliary of Place (p.14)

Recent time "20" common auxiliary of time Class Number **659.21:373.6 (540-2) "20"** 

**8.3.6** Proceedings of the 'National Convention on viral diseases of Rice' held at IARI, Delhi during 14-16<sup>th</sup> January 2005.

Number Building:

Rice crop 633.18 Virus disease 632.38 National Conference 061.3 (540)

14-16<sup>th</sup> January 2005 "2005.01.14-16" common auxiliary of time

Proceedings (061.3)

Class Number 633.18-238: 061.3 (540) 1AR1 "2005.01-14/16" (061.3)

**8.3.7** Review of dry land agricultural research in the Rajashthan during 1998-2005 Number Building

Dry Farming 631.586

Research .001.5 (from point of view number, p. 11) to be

attached with basic class

Rajashthan (544.6) as common auxiliary of place (p. 18)

1998-2005 "1998/2005"

Reviews (047.1) as common auxiliary of form (p.11) Class Number **631.586.001.5(544.6) "1998/2005" (047.1)** 

8.3.8 Administrative report of National Institute of Nutrition (NIN, Estd. 1929),

Hyderabad for the period of 2005

Number Building

Nutrition 612.39 National Institute 061.1(540) National Institute of Nutrition NIN (got by alphabetical device)

Report 06.055.5 2005 "2005"

Class Number 612.39: 061.1.055.5 (540) NIN "2005"

**8.3.9** A survey research in the Marketing management in the cotton textile industry in Gujarat

Number Building

Cotton textile industry 677.21 Marketing Management 658.8

Survey research .001.5 common auxiliary of Point of View (p.23,

add directly basic class 661.112)

Gujarat (547.2) common auxiliary of Place. This number

for Baroda treated as Gujarat

Class Number **677.21.001.5: 658.8 (547.2)** 

**8.3.10** Design and development a manual for sugar industries for Eastern parts of the India

Number Building

Sugar Industries 664.1

Design and development .001.6 common auxiliary of Point of View (p.23)

Manual (02) common auxiliary of Form (p.11) Eastern Part of India (541) common auxiliary of Place

Class Number **664.1.001.6 (541) (02)** 

**8.3.11** A comparative study of the production cost in Apple industry in Himachal Pradesh and Jammu &Kashmir

Number Building

Apple cultivation 634.11
Production cost 657.471.1
Himachal Pradesh and (545.4:546.1)

Jammu &Kashmir

Class Number **634.11:657.471.1(545.4:546.1)** 

## 8.4 Further Readings

- **1. BATTY (David)**. The Universal Decimal Classification. In Encyclopedia of Library and Information Science. Vol.32. New York: Marcel Dekkar. P 125-146.
- **2. BOSE (H).** Universal Decimal Classification: Theory and practice. New Delhi: Sterling Publishers. 1990. Pp. 192
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- **4. FOSKETT (D J).** Trends in research on UDC. Library Science With Slant to Documentation. 16(June); 1979; 62-64.
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**6. MILL (J).** Universal Decimal Classification. New Jersey, VI Rutgers Graduate School of Library Science. 1964. Pp 132

57

- **7. RAJU (AAN).** Universal Decimal Classification. Madras: TR Publications. 1991. Pp 234
- **8. SARDANA (JL) and SEGHAL (R L).** Universal Decimal Classification: Structure and Methodology. New Delhi: ESS ESS Publications. 1983. Pp208.
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- 10. Universal Decimal Classification. Abridged English Edition. Ed. 3. BSI: 1000A: 1961.

Lesson No.: 1.9 Author: K.P. Singh

## THE ARTS, RECREATION AND SPORTS

#### Structure:

- 9.0 Learning Objectives
- 9.1 Introduction to the Class
- 9.2 Summary of the Arts, Recreation and Sports
- 9.3 Details of the Class
- 9.4 Exercises
- 9.5 Further Readings
- 9.0 Learning objectives

This chapter gives a comprehensive detail study of the coverage, summary, details of the Arts, Recreation and Sports class and selective practical exercises. After reading this chapter you will be able to:

- know the scope of subjects and details of the principal classes under the Arts, Recreation and Sports;
- know the summary of The Arts, Recreation and Sports;
- construct complex and compound class numbers in the respective classes;
- make class numbers of the titles as given under the class; and
- do self exercises and checked your answer

#### 9.1 Introduction to the Class

The outline of the division 7 shows that this class includes the subjects: The Arts, town and country planning; Landscape; Architecture; Sculpture; Drawing including decorative and industrial arts and crafts; Painting; prints; engraving; graphic arts; photography: its equipments, use, system, processes and cinematography; Music including various kinds of music, the different instruments, etc; entertainments through films, cinema, drama, theater and sports, games, etc.

## 9.2 Summary of The Arts, Recreation and Sports

- 71 Physical Planning. Landscape, etc.
- 72 Architecture
- 73 Sculpture and the Plastic Arts
- 74 Drawing and Minor Arts and Crafts
- 75 Painting
- 76 Engraving and Prints
- 77 Photography. Cinematography, etc.
- 78 Music
- 79 Entertainment. Pastimes, Games and Sports.

### 9.3 Details of the Class

The generalities of arts are devoted to divisions 7.0 to 7.097. All these divisions are as special auxiliaries and are applicable at 71/76 and 78/79. These include the various aspects of the recreations, entertainments, sports, arts, such as: Aesthetics, the technique and craftsmanship, the styles and arts of different periods such as the prehistoric; ancient, medieval, modern, etc; Application of arts in industry and the features of specific arts. Their application to 71/76 and 78/79 has been illustrated in examples and exercises.

The division 71.deals with physical planning and landscape. It includes town and country planning, regional development, urban and rural development, the general grouping and site planning of various buildings. The practice and procedure of landscaping has been covered under 712. The national parks, gardens, and their landscaping has also been covered under 712. The division 713 to 717 has not been assigned any subject and cemeteries have been covered under 718.

The designing of buildings, open areas, the style of buildings, etc. with regard to their functional and their aesthetic effects is covered under architecture which has been assigned to the class 72/729.9. The general aspects like planning, designing, layout, optical effects and the buildings according to different techniques and periods are classed under 72.0 to 72.036. The designing generally has been assigned the number 721. The public, civil, commercial buildings have been assigned to the class 725, whereas the sacred buildings like temples, chapels, cathedrals, churches under 726. The building of the educational institutions and other cultural societies has been assigned to class 727 and residential, and domestic buildings have been classed under 728. The class 729, which deals with decoration and fittings, is applicable to the different types of buildings, which have been assigned the class 721, 725/728.

The division 73 deals with Sculpture and the Plastic arts. Included in this division are stone and metal cutting and engraving, numismatics, pottery and the artistic metal work like that of the jewellers, etc.

Drawing and sketching has been covered under 74. It includes drawing of cartoons, anatomical drawing, lettering, technical drawing and various minor crafts. The painting, aesthetics theory, materials, styles, uses, applications have all been assigned to the class 75.0/75.061. The different types of painting: religious, portrait, nature landscapes and other types have been assigned to the classes 753/759.

The engraving has been assigned to the class 76. It includes the subjects like relief engraving, flat printing, commercial graphic art, etchings and prints.

An important subject under the class 7 is photography and. cinematography, which have been assigned to the class 77. It includes the photographic equipments, operations, and processes photographic systems, photomechanical processes, special applications and techniques like microcopying projections, tele photography: cinematography colour photography. The collections of photography and films of

individual artists have been classed under 779.

Music has been assigned to class 78. The general aspects, which include the techniques, styles, use, etc. have been classed under 78.0/78.092. The theory of music has been put under 781 and different kinds of music under 782/785. The music for individual instruments has been put under 786/789.

The entertainments, games, sport have been assigned to the class 79. Here also the generalities have been put under 79.0/79.097. The various modes of entertainments such as the films, circus, theater, have been assigned to 791/793. Different types of games, sports athletics, gymnastics, mountaineering, wrestling, water sports, air sports, equestrian sports, fishing, hunting and shooting have all been assigned to the classes 794/799.

## 9.4 Exercises

**9.4.1** Ventilation and thermal facilities in the Cinemas building designing in Metropolis cities of India

Number Building

Cinemas building 725.824 Ventilating facilities 697.9

Metropolis (-201) common auxiliary of Place (as Urban

number taken)

India (540) Metropolis India (540-201)

Class Number **725.824: 697.9 (540-201)** 

**9.4.2** MCD (Delhi) report on Scientific and Research Institutions buildings of Delhi

Number Building

Scientific & Research institutions 727.5

Buildings

Report (047) common auxiliary of Form (p.11) Delhi (545.5) common auxiliary of Place

Class Number **727.5(545.5) (047)** 

**9.4.3** International conference on 'Painting of wood and wood materials' held at Central Building Road Research Institute (CBRI), New Delhi, from 25–28<sup>th</sup> December 2005

Number Building

Paintings (Wood materials) 75.023.1 Conference 061.3 International Conference 061.3(100) 25–28<sup>th</sup> December 2005 "2005.12.25/28"

Class Number **75.023.1: 061.3(100) "2005.12.25/28"** 

**9.4.4** Indian National Journal of Advertising and Graphics (published since 1988)

Number Building

Commercial graphic art 766

Master of Library and Information Science 61 MLIS 207 (a)

Advertising (Design & Display) 659.12 Journal (051) 1998 "1998"

Class number **766: 659.12 "1998" (051)** 

**9.4.5** English –Punjabi Manual for Photocopying machine

Number Building

Photocopying instruments 778.1

Manual (02) common auxiliary of Form (p.11)
English =20 common auxiliary of Language (p.11)
Punjabi =914P(byAD) common auxiliary of Language (p.11)

Extended number on the basis of literature

Class Number **778.1(02) =20=914P** 

**9.4.6** A administrative report on the recent trends and development in Music industry of Bollywood (Mumbai) and Hollywood (USA)

Number Building

Music 78

Trends & Development .001.6 common auxiliary of Point of View Number (p.24)

Administrative report (047) common auxiliary of Form (p.11)

Bollywood (Mumbai) (547.1) Hollywood (USA) (73)

Bollywood (Mumbai) and (547.1: 73)

Hollywood (USA)

Class Number **78.001.6(547.1: 73) (047)** 

**9.4.7** Use of Colour Photography in Diagnosis of diseases in Developing Countries

in modern time Number Building

Colour Photography 778.6

Use .004.14 common auxiliary of Point of View Number (p.24)

Diagnosis of Diseases 616-07 Developing Countries (1-77)

Modern Time "15/18' common auxiliary of Time (p.22) Class Number **778.6.004.14: 616-07(1-77) "15/18"** 

**9.4.8** A Reference Manual on Music and Musical Instruments for Arabs People

Number Building

Music 78 Musical Instruments 681.81

Reference Manual (02) common auxiliary of Form (p.11)

Arabs People (=927)

Class Number **78: 681.81(02) (=927)** 

9.4.9 Planning of Gymnasiums Buildings for Indo-Commonwealth games in Delhi to

be held New Delhi in 2010

Number Building

Gymnasiums Buildings 725.85 Planning (Physical) 711 Indo-Commonwealth (540-44) 2010 "2010"

Class Number **725.85: 711(540-44) "2010"** 

# 9.4.10 French - Russian Scientific Dictionary of Games

Number Building

Games (-Sports) 796 Scientific 5/6 Dictionary (038)

French =40 common auxiliary of Language (p.11)
Russian =82 common auxiliary of Language (p.11)

Class Number **796: 5/6(038) =40=82** 

## 9.5 Further Readings:

- **BATTY (David)**. The Universal Decimal Classification. In Encyclopedia of Library and Information Science. Vol.32. New York: Marcel Dekkar. P 125-146.
- **2. BOSE (H).** Universal Decimal Classification: Theory and practice. New Delhi: Sterling Publishers. 1990. Pp. 192
- **3. FOSKETT (A C).** Universal Decimal Classification. London: Clive Bingley. 1973. P172.
- **4. FOSKETT (D J).** Trends in research on UDC. Library Science With Slant to Documentation. 16(June); 1979; 62-64.
- **5. MILL (J).** Modern Outline of Library Classification. Bombay: Asia Publishing House. 1962.
- **MILL (J).** Universal Decimal Classification. New Jersey, VI Rutgers Graduate School of Library Science. 1964. Pp 132
- 7. RAJU (AAN). Universal Decimal Classification. Madras: TR Publications. 1991. Pp 234
- **8. SARDANA (JL) and SEGHAL (R L).** Universal Decimal Classification: Structure and Methodology. New Delhi: ESS ESS Publications. 1983. Pp208.
- **9. SATYANARAYAN (VVV).** Common auxiliaries in UDC and common isolates in CC: A comparative study in their practice. IASLIC Bulletin. 22 (2); 1977:77-84.
- **10. Universal Decimal Classification.** Abridged English Edition. Ed. 3. BSI: 1000A: 1961.

Lesson No.: 1.10 Author: K.P. Singh

### GEOGRAPHY, BIOGRAPHY AND HISTORY

#### Structure:

- 10.0 Learning Objectives
- 10.1 Scope of the Subjects
- 10.2 Summary of Geography, Biography and History Class
- 10.3 Details of the Class
- 10.4 Exercises
- 10.5 Further Readings
- 10.0 Learning objectives

The Geography (is an ever-expanding subject, which encompasses under its umbrella many seemingly varied topics. Its boundaries cross and criss-cross with economics, sociology, Civilization and culture, commerce, geography, geology, and many more), Biography (usually refers to a written account of person's life which form a part of literature), and History (a old discipline primarily deals with the study of past events related to human affairs). This chapter gives a comprehensive detail study of the coverage, summary, details of the Geography, Biography and History class and selective practical exercises. After reading this chapter you will be able to:

- know the scope of subjects and details of the principal classes under the Geography, Biography and History;
- know the summary of the Geography, Biography and History;
- construct complex and compound class numbers in the respective classes;
- make class numbers of the titles as given under the class; and
- do self exercises and checked your answer

## 10.1 Scope of the Subjects

History is that branch of knowledge, which records the past events of human communities. It studies and explains such events, whereas Geography deals with the earth and its life. However, various aspects of the discipline are included differently in different schemes of classification. The Biographies of individuals and also those belonging to various professions can be classed either under 92 or under various subjects.

## 10.2 Summary of the Geography, Biography and History Class

- 91 Geography, Exploration and Travel
- 92 Biography, Genealogy and Heraldry
- 93 History in General and Sources and Ancient History
- 94 Mediaeval and Modern History
- 940 History of Europe
- 950 History of Asia
- 960 History of Africa

- 970 History of North America
- 980 History of South America
- 990 History of Oceania, Australia and Polar Regions

## 10.3 Details of the Class

The first section of this class 910/919 as indicated in the schematic presentation is used for geography, exploration and travel. Class 910 is devoted to general studies, accounts of travels, expeditions, voyages, and exploration and discovery. General geography (physical, human, and applied, etc.) have been classed under 911. The division 912 is used for geographical maps, atlases and globes. The division 914 to 919 is assigned to modern geography and descriptions of individual countries.

The class 92 is assigned to biography. Collective biographies relating to particular subject are classed as 92, e.g. Studies of eminent physicists 92:53.

For general biographical presentation in any specific subject with emphasis on contribution to the subject rather than on biographies (092) is added with appropriate UDC number.

Biographical history of medicine

61(092)

The collective biographies of a particular country, race, and period are classed under 92 (.).

Prominent men of England of the 19th century 92 (42) "18".

In the case of individual biographies, names are added in brackets, and/or abbreviated, if desired, and arranged alphabetically.

Biography of Nehru

92 (Nehru).

The division 93 is used for History. The introduction of the class 930 is devoted to historical sciences including subsection on history as a science and study of sources. Class 931/939 is devoted to ancient history. The medieval and modern history has been assigned to 94. Class 940 deals with history of Europe. History of different countries are assigned to the classes 941/999 according to the division of the common auxiliary of space (4/9).

## 10.4 Exercises

**10.4.1** Handbook of Library Scientists and Information Workers of United State of America

Number Building

Biography 92 Library and Information Science 02

Professionals (=Persons) .007.1 common auxiliary of Pont of View

Numbers (p.24)

United State of America (73) common auxiliary of Place (p.20)

Class Number **92:02.007.1(73)** 

10.4.2 Military Geography of West Coast of India, Srilanka, Pakistan, Japan and China

Number Building

Human Geography 911.3 Military Science 355 Master of Library and Information Science 65 MLIS 207 (a)

West (-15) Coast (221.5) West Coast (221.5-15)

India, Srilanka, Pakistan, (5)

Japan and China (As all these countries are the part Asia therefore,

Asia as broader number has been taken)

West Coast Asia (5: 210.5-15) common auxiliary of Place

Class Number **911.3:355 (5: 210.5-15)** 

10.4.3 Bilingual Encyclopedic dictionary of Science and Society of Ancient India

Number Building

Ancient India 934 Science 5 Society 301

Dictionary (038) common auxialry of Form (p.11)
Bilingual =00 common auxiliary of Language (p.11)

Class Number **934:5:301(038)=00** 

10.4.4 Professor S.R.Ranganathan and Colon classification

Number Building

Biography 92 (individual biographical work)

S.R.Ranganathan

Biography 92 (Ranganthan) to be got by alphabetical device (p. 144)

Colon Classification 025.49CC

Class Number 92 (Ranganthan): 025.49CC

10.4.5 Comprehensive Biography of S&T Professionals in India

Number Building

Biography 92 Science & Technology 5/6

Professionals (Personnel) .007.1 common point of View Number (p.24)

India (540)

Class Number **92:5/6.007.1 (540)** 

10.4.6 India's Changing Maps: A report of National and Regional Development, 2004-2005

Number Building

Maps & Atlases 912 Economic Development 330.19

India (540) common auxiliary of Place (p.18) Report (047) common auxiliary of Form (p.11)

2004-2005 "2004-2005"

Class Number 912(540): 330.19"2004-2005" (047)

**10.4.7** Indo-US Encyclopedia of Biogeography

Number Building

General Geography 911

Master of Library and Information Science 66 MLIS 207 (a)

Biology 574

Biogeography 911.2: 574.9 Indo-US (540+73)

Encyclopedia (03) common auxiliary of Form (p.11)

Class Number 911.2:574.9 (540+73) (03)

10.4.8 Indian Exploration of 20th Centaury: An account of Expedition in the Himalayas,

Tibet, Magnolia and Central Asia

Number Building

Expedition (Exploration) 910.4 Himalayas (235.24) Central Asia (58)

Himalayas Central Asia (235.24+58) or (235.24:58)

20<sup>th</sup> Centaury "19"

Class Number 910.4 (235.24+58) "19"

10.4.9 Historical Description of Ancient cities of Indus Civilization

Number Building

Civilization 930.85 Indus (282.253)

Indus Civilization 930.85 (282.253)

Historical Description (09) common auxiliary of Form (p.12)

Class Number 930.85 (282.253) (09)

**10.4.10** Pictorial guide to reference sources on Delhi history

Number Building

Indian History 954
Delhi History 954.55

Reference sources (02) common auxiliary of Form (p.11)

Pictorial sources (084.5) common auxiliary of Form (p.12)

Pictorial Reference guide (02:084.5)

Class Number **954.55(02:084.5)** 

### 10.5 Further Readings

- **1. BATTY (David)**. The Universal Decimal Classification. In Encyclopedia of Library and Information Science. Vol.32. New York: Marcel Dekkar. P 125-146.
- **2. BOSE (H).** Universal Decimal Classification: Theory and practice. New Delhi: Sterling Publishers. 1990. Pp. 192
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- **8. SARDANA (JL) and SEGHAL (R L).** Universal Decimal Classification: Structure and Methodology. New Delhi: ESS ESS Publications. 1983. Pp208.
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Type Setting By: