DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

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NAME OF THE PROGRAMME: M.LIB.I.SC

COURSE – 1.3: KNOWLEDGE ORGANIZATION (THEORY) - CLASSIFICATION AND CATALOGUING

COURSE CODE: P24MLS3

Unit-III: General theory of Library Classification: Devices of Zone Analysis; Normative Principles and their applications; Canons and Facet Analysis; Mnemonics; Fundamental Categories, Systems and Specials, Principles and Postulates of Helpful Sequence

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General Theory of Classification

- **J.D.Brown theory** of classification- One place theory

- **Richardsan theory**

  -Principles called Criteria.

  -Book titled classification, theoretical and practical published in 1901.

  -Criteria of classification

  -Likeness and unlikeness

- E.W. Hulme's theory

  -is based on mechanical assembling of materials and

  -Co-ordinate arrangement of subject's literary warrant.

CONT..,

- Berwick Sayers

  -Enunciated 29 canons for classification.

  -Canons deals with division principles terminology

  -arrangement of books by logical order, notation, Index etc..

  -Word canon was given in 1926 in the first edition of the manual of classification.

  -3rd edition 1955 same book contain 29 canons 6th different headings.

- H.E.Bliss

  Organization of Knowledge and the system of science (1928)

- Ranganathan's theory

  Considered to be a dynamic theory.

  Based on three plans, (i.e.) ideal plane, verbal plane, notational plane.

Dynamic Theory of Library Classification

- Postulate Approach to Library Classification
- Normative Principles
- Three Planes of Work
- Modes of Formation of Subjects
- Systems Approach to the Study of Subjects
- Depth Classification
- Classification in Electronic Environment
- Classificatory basis for metadata
- Knowledge Organization

Intellectual Basis for the Design of Library Classification

- **Different approaches**
  - **Subject approach**
  - **Ontological-basis**
  - **Dichotomy, Trichotomy, Dechotomy, Polytochomy**
  - **Systems Approach**
  - **Postulation Approach**
    - ***A postulate is a statement about which we cannot use either of epithets 'right' or 'wrong'. We can only speak of a set of postulates as 'helpful' or unhelpful'. Thus, postulates are certain assumption, which are helpful in carrying out the process of classification of documents.***

Normative Principles

- *The 'Normative Principles', have emerged out of Ranganathan's idea of Spiral of Scientific Method.*
- *The Spiral of Scientific Method an endless persuasion of the study of subjects.*
- *The word 'Normative' is derived from root term 'norm' means rules or an authoritative standard.*
- *Normative means, establishing a standard. So the phrase Normative Principles refers to the principles of establishing standards for designing a scheme of classification.*

The Kinds or levels of Normative Principles

S.No	Level	Name of the Normative Principle
1	Basic Process of Thinking	Basic Laws
2	Laws of Library Science	Fundamental Laws
3	Library Classification	Canons
4	Helpful Sequence in and among facets	Principles
5	Work of designing a scheme for Library Classification and work of Classifying	Postulates

Basic Laws

- Laws of Interpretation
- Law of Impartiality
- Law of Symmetry
- Law of Parsimony
- Law of Local Variation
- Law of Osmosis

Thee Planes of Work

- **Idea Plane = Class**
  (Generation of Groups)
- **Verbal Plane = Subjects**
  (Assigning Names)
- **Notational Plane = Class Number**
  (Assigning Numbers to Class of Subjects)

- The relation between three planes can be given as:
- **Class = Subject = Class Number**

Canons of Classification

- The meaning of the word Canon is a general rule or principle, the standard or criterion

- The Canons of Classification fall into following groups:
  - Canons for Idea Plane
  - Canons for Verbal Plane
  - Canons for Notational Plane

Idea Plane

- **Universe of subjects is the beginning for the work in Library Classification. How the subjects are developed, explained through a dynamic theory and is the content of the Idea Plane. Ranganathan asked himself first "How does knowledge arise".**

- **The Canons for Idea Plane are used to regulate the work in this plane. A Scheme of Classes is a prerogative in the design of scheme of classification and are derived applying the canons.**

Canons for Idea Plane

- **Canons for Characteristics (4)**
  - **Canon of Differentiation**
  - **Canon of Relevance**
  - **Canon of Ascertainability**
  - **Canon of Permanence**
- **Canons for Succession of Characteristics (3)**
  - Canon of Concomitance
  - Canon of Relevant Succession
  - Canon of Consistent Succession

Canons for Idea Plane

- **Canons for Array (4)**
  - **Canon of Exhaustiveness**
  - **Canon of Exclusiveness**
  - **Canon of Helpful sequence**
  - **Canon of Consistent Sequence**
- **Canons for Chain (2)**
  - **Canon of Decreasing Extension**
  - **Canon of Modulation**
- Canons for Filiatory Sequence (2)
  - **Canon for Subordinate Classes**
  - **Canon for Coordinate Classes**

Idea Plane

- Classification is the mapping of the universe of Knowledge. The idea plane involves study and analysis of universe of subjects, and their isolated in order to arrange them in a helpful sequence.
- To study the structure of universe of subjects, recognizing the interrelationships among subjects and fixing them in preferred sequence..

Cont..,

- Dr. S.R. Ranganathan has formulated the following five sets of canons to guide the work in each of the five steps in the Idea plane. These are:
- **Canons for characteristics**
- **Canons for succession of characteristics**
- **Canons for Array**
- **Canons for chain, and**
- **Canons for Filatory sequence.**

CANON FOR CHARACTERISTICS

- Need less to reiterate that the characteristics form the basis of classification.
- A group of entities to be assorted possess a number of characteristics. The first step in classification is to select such characteristics as will be helpful for the purpose of classification. The canons for characteristics, given by Dr. Ranganathan, guide the selection of these characteristics.
- A canon for Characteristics deals with the process of division of Knowledge. In fact, a characteristic to be chosen for the purpose of classification should pass the tests prescribed by the following four canons:
- **Canon of Differentiation**
- **Canon of Relevance**
- **Canon of Ascertainability**
- **Canon of Permanence**

1.1 Canon of Differentiation (Applicable to Universe of Basics subjects)

- The Canon of Differentiations states that "a characteristic used as the basis for the classification of a universe should **differentiate some of its entities**, that is, it should give rise at least to two classes, or ranked isolates".
- In the example of a classroom,
- the students may be divided into two distinct groups,
- i.e. boys and girls, on the basis of sex.
- But we cannot divide the class on the basis of such attributes, as "student" or "possession of face", because these attributes are shared by all the individuals of the class.

1.2 Canon of Relevance (Applicable to Universe of Isolate Ideas)

- The Canon of Relevance stipulates that "a characteristic used as the basis for classification of a universe should be **relevant to the purpose of the classification**".

For Example

- To select a best boy from a class for a debate competition, the relevant characteristic will be intelligence, speaking power and knowledge about the subject; characteristics as height, weight, complexion of skin, etc. will be irrelevant.

Author, Year of Publication

1.3 Canon of Ascertinability (Applicable to Universe of Compound subjects)

- According to the Canon of Ascertain ability, “a characteristic used as the basis for the classification of a universe should be **definite and ascertainable**”.

Example

- In the universe of authors,
- date of death may be considered as a characteristic for a division,
- but it will be impossible to ascertain the data of death of the authors who are alive.
- Therefore, in the **literature schedule**, the **data birth of the authors, which is easily ascertainable**, is used as the basis of classification.

1.4 Canon of Permanence (Applicable to Universe of Complex subjects)

- The Canon of Performance states that " a characteristics used as the basis for the classification of a universe should **continue to be unchanged , so long as there is no change in the purpose of classification".**

Example:

- In some schemes of classification, periodicals are divided into two classes, viz.
  - Those published by learned societies , and
  - Those not published by learned societies
- The above characteristics user for the division of periodicals is not permanent in nature, as the periodicals undergo frequent changes in their authority, or agency of publication.

2. CANON FOR SUCCESSION OF CHARACTERISTICS

- Canon for Succession of Characteristics in the process of division of Knowledge deal with the application of more than one characteristics.
- After the characteristics to be used for the process of classification have been selected, the next step in to apply them, one after the other. Keeping in view the purpose of classification, the chosen characteristics should be applied in appropriate succession.

For example,

- To organize a collection of **'Literature'**, four important characteristics, viz**. language, form, author, a work** may be taken in to consideration (see Fig). There may be as many as 24(1X2X3X4=24) permutation and combinations in which these four characteristics can be applied. But the most appropriate and helpful succession will be : language, form ,author, work. The fact may be justified by looking into the method of organization of literature books in a library.

Cont..,

- To guide the succession of characteristics, Dr. S.R. Ranganthan formulated the following three canons:
- Canon of Concomitance
- Canon of Relevant Succession, and
- Canon of Consistent Succession

2.1 Canon of Concomitance

- The Canon of Concomitance states that "no two characteristics should be concomitant, that is they should not give rise to the some array or subjects, or of isolate ideas"

For Example,

- While classifying the universe of men, the characteristics age and the year of birth should not to be used in succession, because they will form the same arrays;
- Characteristics like height and age can be used one after the other as they are not concomitant. This canon refrains the use of concomitant characteristics in succession

2.2 Canon of Relevant Succession

- The canons of relevant succession stipulate that "the succession of the characteristics in the associated scheme of characteristics **should be relevant to the purpose of the classification**".

Example

- In view of the implication of thus canon, the succession of characteristics used in classifying the subjects going with such main classes as Library Science, Chemistry and Law has been changed. In the first edition of CC, the succession of characteristics was prescribed as follows:

Library science	- Problem, Library
Chemistry	-Problem, Substance
Law	-Law 1, Community

- When, the approach of readers in the Library was observed, the succession was not found relevant to the purpose of readers. Therefore, in the later editions of CC, the succession of characteristics was changed as under:

Library science	- Problem, Library
Chemistry	-Problem, Substance
Law	- Community Law 1

2.2 Canon of Consistent Succession

- According to the Canon of Consistent Succession, "the succession of the characteristics in the associated schemes of characteristics should be consistently adhered to, as long as there is no change in the purpose of the classification.".
- This canon demands that the sequence of application of chosen characteristics should be followed consistently. In the History schedule of DDC, two characteristics,
- **i.e. geographical area and period,** have been chosen and applied in the dame succession. The users of scheme should always adhere to this sequence; otherwise things will become much too chaotic.
-

Cont..,

Similarly, the history schedule of **CC** has chosen four characteristics, viz.

- Community (GD),
- Organs of state,
- Attribute of organ (Problem) and
- The Period (CD).
- The users of the scheme should follow this Succession of characteristics consistently

Example: (from CC)

- Library Science, [Library]:[Material]:[Problem]

  Circulation of News papers =2; 45:6

  Circulation of News papers in University Library = 234;45:6

  Circulation of News papers 2; 45:51

  Circulation of News papers in University Lib. 234;45:51

3. CANONS FOR ARRAY

- A sequence of coordinate classes of a universe derived from it on the basis of characteristics and arranged among themselves according to their rank.
- In the first step of progressive classification of any universe, characteristic are chosen by the help of canons for characteristics; the second step involves the application of chosen characteristics in succession, in accordance with the guidelines prescribed by the canons for succession of characteristics, the classes Bearing coordinate or equal type of relationship are formed . **A group coordinate classes is called an array.** The formulation of arrays marks the third stage in progressive classification. The Canons for array specify the peculiarities that should be available in the classes of an array. Each array of classes in sa scheme for classification should satisfy the following four Canons.
- The Canons for Array are.
  - Canon of Exhaustiveness
  - Canon of Exclusiveness
  - Canon of Helpful sequence
  - Canon of Consistent sequence

3.1 Canon of Exhaustiveness

- The Canon of Exhaustiveness demands that "the classes in an array of classes, and the ranked isolates in an array of ranked isolates, should be totally exhaustive of their respective common immediate universes".

Example: DDC

290	Other and comparative religion
291	Comparative religion
292	Classical religion
293	Germanic religion
294	Religions of Indic origin
295	Zoroastrians
296	Judaism
297	Islam and religions derived from it
299	Other religions

3.2 Canon for Exclusiveness

- The canon of Exclusiveness states that 'the classes in an array of classes, and the ranked isolates in an array of ranked isolates, should be mutually exclusive'.

Example

The students may be divided in the basis of subjects, and on the basis of their mental ability to learn.

3.3 Canon of Helpful Sequence

- The canon of helpful sequence implies that; "the sequence of the classes in an array of classes, and of the ranked isolates in an array of ranked isolates, should be helpful to the purpose of those for whom it is intended.
- **Example**

Plants((Parts)

1. Root
2. Stem
3. Leaf
4. Flower
5. Fruit
6. Seed

3.4 Canon of Consistent Sequence

- The Canon of consistent sequence is defined as under. “Whenever similar classes, or ranked isolates occur in different arrays, their sequence should be parallel in all such arrays wherever insistence on such a parallelism does not counter in other more important requirements”.
- For **example,** the arrangement of following classes in psychology, education and sociology is parallel to each other as illustrated below:

Psychology	**Education**	**Sociology**
Child	Pre-secondary	Child
Pre adolescent	Secondary	Youth
Adolescent	Adult	Old person
Post adolescent	Literate	

4. CANONS FOR CHAIN

- A chain is defined as a group of subordinate classes in which each successive class is derived from the preceding class. Each class of a chain is called a link.

Example:

General	CC	DDC
World	G1-Life	500-Pure Science
Asia	G11-Cell	540- Chemistry
India	G113-Nuclent	541- Physical Theoretical Chemistry
Tamilnadu	G1135-Nucledi	541.3 Physical Chemistry
Trichy	G11352-Plasmama	541.35 Photo Chemistry
		541.351 Energy Chemistry

In progressive classification, when such chains are formed, they should satisfy the following two canons: **Canon of Decreasing Extension** and **Canon of Modification**

4.1 Canon of Decreasing Extension

- The canon of decreasing Extension states that "while moving down a chain, from its first link to its last, the extension of the classes, or of the ranked isolates, as the case may be, **should decrease, and the intension should increase at each step.**
- Extension and intension two terms have an inverse relation to one another.
- Extension is a Quantitative measure
- Intension is a Qualitative of a Class

4.2 Canon of Modulation

"This canon states that a chain of classes or of ranked isolates should comprise one class or one ranked isolate, as the case may be, of each and every order that lies between the orders of the first link and the last link of the chain."In the geographical divisions, a chain is comprised of the following links:

Compare the following Two Chain

World	**CC**	**DDC**
Continent ---Asia	X-Econmics	330-Economics
Country------India	X7- Public Finance	336- Public Finance
State------Tamilnadu	X72- Taxation	336.2- Taxation
District----Trichy	X729-Indirect Tax	336.27 Other tax
Tehsil-----SriRangam	X7299-Stamp Duty	336.271Indirect Tax

5. CANONS FOR FILIATORY SEQUENCE

- Filiatory Sequence means “a sequence which respects the degree of mutual relation between subjects. Mutual relation is two types such as
- Relation of classes as Coordinate Classes
- Relation of classes as Subordinate Classes
- When a particular universe has been sorted out completely into arrays and chain, the next step is to arrange these classes in one line, according to their degree of mutual affinities. Filiatory sequence is like a family tree, in which parent-child relationship is maintained without intervention of any other member of the family.
- Nevertheless, the following two canons should observed while arranging the classes in a filiatory sequence:
  - Canon of subordinate classes, and
  - Canon of coordinate classes.

5.1 Canon of Subordinate Classes

The canon of subordinate classes may be stated as under:

- "In a coalesced array, if A1,A2, A3, etc. are subclasses of any order whatsoever of class A, originated in one or another of the chains originating from the class A, the classes A1, A2, A3, etc. should immediately follow the class A in succession, without being separated from it, or among themselves by any other class".
- "All the subordinate classes (or isolates) of a class in whatever chain may occur, should immediately follow it without being separated from it, or among themselves by any other class (or isolates)".

5.2 Canon of Coordinate classes

- The Canon for coordinate classes states that “in a coalesced array, or class A and class B has originated in one and the same array, and had been consecutive in it, they should not be separated from each other by any class /other than the classes A1,A2, A3, etc., having A as their common immediate universe”.
- Among the classes in array, no class with less affinity should come between the classes with greater affinity.

Example:DDC

- 300 Socisl Science
- 310 Statistics
- 320 Political Science
- 330 Economics
- 340 Law
- 350 Public Administrations
- 360 Social Problems & Services

Example: CC

B28 Statistics
T Education
W Political Science
W8 Public Administrations
X Economics
X5 Commerce
Y:356 Customs

VERBAL PLANE

- The terminology used in the Schedule of Library Classification

  The terminology used in the communication of thought in the field of Library Classification theory.

- The following are the important points related to the Verbal Plane.

1. The terms used in the schedules should be technical terms in current use among the specialists in diverse subjects. No popular terms be used.

2. The names of the subjects cannot be assigned by classificationists.

They are those used by specialists. " The International Committee for Nomenclature" for various subjects are established for suggesting terminology for various subjects.

3. In all classes Technical Terminology be used and not popular terms for the latter cross references be given in the catalogue if required.

4. Technical Terminology is homonym free and synonym free. Technical terminology has language of its own.

Canons for Verbal Plane

- **The following are the four Canons of Verbal Plane.**

  - Canon of Context
  - Canon of Enumeration
  - Canon of Currency
  - Canon of Reticence

Canons for Verbal Plane

- S.R.Ranganathan defined terminology as the system of terms used to denote, i.e. to name, the classes or ranked isolates in a scheme of classification.

Canon of Context

- The canon of context specifies that 'the denotation of a term in a scheme for classification should be determined in the light of the different classes, or ranked isolates of the lower order (Upper link) belonging to the same primary chain as the class or the ranked isolates, denoted by the term in question'.
- Example:

Y	Sociology
	Foci in (E)
1	Civilisation culture
2	Physical characteristics
3	Activity
4	Social Pathology
41	Intemperance
42	Degeneration
43	Destitution

4.2 Canon of Enumeration

The canon of Enumeration stipulates that the denotation of a term in a scheme for classification should be determined, and should be left to be determined, in the light of or through the subclasses or ranked isolates (lower links) enumerated in the various chains having the class or ranked isolate, as the case may be denoted by the term in question as their common link'.

Example I Arithmetic

Examine the enumeration of the subclasses of the class Arithmetic in DC and CC

DDC 22	CC 6
513 Arithmetic	B1 Arithmetic
513.1 Arithmetic combined With other branches	B11 Lower Arithmetic
	B12 Concepts of numbers
513.2 Arithmetic operations	B13 Integers (Thery of Numbers)
	B14 Imaginary numbers
	B15 Algebraic numbers
513.5 Digital representation	B16 Complex and hyber complex numbers
513.6 Non-weighted systems	
513.9 Special purpose Arithmetic	B18 Transcendental number

4.3 Canon of Currency

- The canon of Currency stipulates that the term used to denote a class, or a ranked isolate, in a scheme for classification should be the one current among those specializing in the subject field covered by the scheme".

Example

Old term	**New term**
Natural Philosophy	Physics
Political Economy	Political Science
Library Economy	Library Science

Some other new ideas and concepts are

Astrophysics

Astrochemistry

Astrobiology

Astrometry

4.4 Canon of Reticence

The Canon of Reticence requires that “the term used to denote a class, or a ranked isolate, in a scheme for classification should not be critical-that is express any opinion of the classificationist”.

NOTATIONAL PLANE

- The study of postulates, principles, canons, flexibility, hospitality, kind and other characteristics of Notation is the content of study notational plane.

- The Universe of Subjects is an ever-growing one, and the notational system used in a classification system should satisfy a certain set of canons in order to meet the dynamic quality of the Universe of Subjects.

Canons for the Notational System

- Set 1: Basic Canons for Notation (2)
  1. Canon of Synonym:
  2. Canon of Homonym:
- Set 2: Canons for Mnemonics (10)
  1. Canon of Relativity and Canon of Uniformity
  2. Canon of Hierarchy and Canon of Non-hierarchy
  3. Canon of Mixed Notation and Canon of Pure Notation
  4. Canon of Faceted Notation and Canon of Non-faceted Notation; and
  5. Canon of Co-extensiveness and Canon of Under-extensiveness

Set 1: Basic Canons for Notation (2)

Canon of Synonym:

The Canon of synonym states "that the class number of a subject in a system of class numbers, and the isolate number of an isolate idea in a system of isolate numbers, should be unique".

Canon of Homonym:

The Canon of Homonym stipulates that" the subject represented by a class number in a system of class numbers, and the isolate idea represented by an isolate number in a system of isolate numbers, should be unique".

SET 2: CANONS FOR MNEMONICS (10)

1.2.1. CANON OF RELATIVITY US CANON OF UNIFORMITY

1.Canon of Relativity The canon requires that "the number of digits (including digit groups treated as a single digit) in a class number, or in an isolate number, should be the same as the order of the subject or the isolate idea, as the case may be, represented by it".

2.Canon of Uniformity This canon implies that "the number of digits in a class number, or in an isolate number, should be constant,, whatever be the order of the subject or the isolate, as the case may be, represented by –a".

Diagram- 240

Example

Physics	QC
Light	QC 353
Diffraction	QC 431
Spectrum Technique	QC 451
Ultra-violet Spectrum	QC459
Raman Effect	QC 454

1.2.2 Canon of Hierarchy vs Canon of Non- Hierarchy

I. Canon of Hierarchy The Canon of Hierarchy stipulates that in a class number , or in an isolate number, there should be a digit to represent each of the characteristics used in constructing the class number or the isolate number as the case may be".

II. Canon of Non-hierarchy The canon of Non-hierarchy stipulates that "in a class number or in an isolate number, there need not be a digit to represent each of the characteristics used in constructing the class number, or isolate number, as the case may be'.

- L Medicine
- L2 Digestive system
- L24 Stomach
- L246 Gastric gland

1.2.3 Canon of Mixed Notation vs Canon of Pure Notation

i. **Canon of Mixed Notation:** The Canon stipulates that the base of the notational system of a scheme for classification should use two or more species of digits;.

ii. **Canon of Pure Notation:** This canon implies that the base of the notational system of a scheme for classification should use one, and only one, species of digits'.

1.2.4 Canon of Faceted Notation vs Canon of Non facted Notation

- i. **Canon of Facted Notation** The canon stipulates that 'a faceted notational system should be used when the
- a) lengh of the base of notation is about 10 and the universe is likely to contain mere than a million or more entities or subjects;
- b) lengh of the base is about 56 and the universe is likely to contain 1,000 millions or more entities or subjects'.
- **ii) Canon of Non-facted Notation** This canon implies that "a non-facted notational system may be adequate when the
- a) Length of the base of the notion is about 10 and the universe is likely to contain not more than a million entities; and
- b) Length of the base is about 56 an the universe is likely to contain not more than 1,000 million entities".

1.2.5 Canon of Co-extensiveness vs Canon of Under-extensiveness

- **i) Canon of Co-extensiveness:** This canon state that " in a class number, digits should be added successively so as to represent the measure of incidence of even the very last characteristic in the succession of characteristics, admitted by the universe, classified and relevant to the purpose of the classification".
- **ii) Canon of Under-extensiveness:** This canon requires that " in a class number, it is not essential that the digits should be continued so as to represent the measure of incidence of the later characteristic in the succession of characteristics, admitted by the universe classified and relevant to the purpose of the classification".
- Colon Classification has provided certain postulates and principles to evolve a method of assigning co-extensive class numbers. U.D.C. also is quite capable of assigning co-extensive class numbers, D.C too, conforms to the Canon of Co-extensiveness, but not fully.

Canons for Mnemonics

- Mnemonic notation has been variously defined by experts to Library Classification. Some definitions are given here under.
- S.R.Ranganathan: "The digit or digit group used to represent a specific concept in a class number (or any of its constitunents) should be the some in all class numbers having that concept represented in them, provided that insistence on such consistent representation does not violate more important requirements".

KINDS OF MNEMONICS

- Alphabetical Mnemonics
- Scheduled Mnemonics
- Systematic Mnemonics
- Seminal Mnemonics

ALPHABETICAL MNEMONICS

- Alphabetical Mnemonics, called leteral mnemonics , by Bliss, is most commonly used in our daily life.
- According to Dr. ranganathan, “alphabetic mnemonic should be rejected without any hestation, if a sequence more helpful to readers, or more filiatory than alphabetical sequence, exists. Alphabetical mnemonics should be preferred if the alphabetical sequence is as helpful as any other sequence, and if an international nomenclature exists in the field to which it is applied”
- Albhabetical Mnemonics is recommended in such cases where no other sequence is found to be more helpful than an alphabetic sequence. For example, consider the following:

  Brands of cycles

  - D 5125 A — Atlas Cycle
  - D 5125 H — Hero Cycle
  - D 5125 R — Raleigh Cycle

SCHEDULED MNEMONICS

The Canon of Scheduled Mnemonics stipulates that 'a scheme for classification should use one and the same, digit or digit group, as the case may be, to represent an isolate idea, or an array isolate idea, in whatever subject it may occur".

The Schedules of common isolates and different devices satisfy the canon of schedule mnemonics automatically.

Common Isolates Certain schedules already present in a sceme of classification such as schedules of common isolate in CC or Form Divisions in D.C., consist of divisions based on such characteristics as

- Geographical division
- Chronological division
- Common isolates and
- Language Isolates

These divisions can be used mnemonically whatever needed

Systematic Mnemonics

- The Canon of Systematic Mnemonics states that "in a scheme for classification the digits used to represent the array isolate ideas in an array would run parallel to the sequence in which the principles for helpful sequence would arrange the array isolate ideas".
- The principles of helpful sequence deals with the following sequences
  - Time sequence
  - Evolutionary sequence
  - Spatial contiguity sequence
  - Quantitative sequence
  - Complexity sequence
  - Canonical sequence
  - Literary warrant sequence etc.,

Seminal Mnemonics

- The canon of Seminal mnemonics states that "a scheme for classification should use one and the same digit to denote seminally equivalent concept in whatever subject they may occur."

Examples

Examine the following concepts appearing in different subjects.

Concepts	Subjects
Function	in Political Science
Physiology	in Biological Science
Social activities	in Sociology

Facet Analysis

Facet is a generic term used to denote any component be it a basic subject or an isolate of a component subject and also its respective ranked forms, terms and numbers

Eg. 'Treatment of Lung disease in Medicine'

Four Components of Facets namely:

1, Treatment 2, Disease 3, Lung and 4, Medicine

Medicine – Basic Facet of the Subject

Lung – Organ Facet of the Subject

Disease – Problem Facet of the Subject

Treatment – handling Facet of the Subject

Skeleton Form

(Medicine) (Lung) : (Disease) : (Treatment)

Focus:

Focus is a generic term of denote any isolate or any subject and also the numbers representing any of them; and .

and the name denoting any of them.

Above subject

- Medicine is the focus is the basic facet of the subject
- Lung is the focus is the organ facet of the subject
- Disease is the focus is the Problem facet of the subject
- Treatment is the focus is the handling facet of the subject

CONT..

Facet Analysis:

The Process of setting out subject in this Skeleton form is called "**Facet Analysis**"

(Or)

In the process of analyzing the subject in to facets according to the postulates and principles enunciated for the purpose.

Postulates:

"A Postulate is a statement about which we cannot use either of the epithets"

Facet Analysis:

The postulates for facet analysis are as under:

1. Postulate of Basic facet
2. Postulate of Isolate facet

Postulate of Basic facet:

"Every Subject has a basic subject"

Example:

- Compound subject has only one basic subject
- Complex subject is comprised of two or more basic subject
- Library science, Mathematics, Physics, Chemistry – Basic subject

Indication by the title of the documents of the basic facet of its subjects

Explicit – clearly indicated

Implicit – not definitely stated

Absent

Cont..

Indicated	Title	Basic Subject
Explicit	Facet of library classification	Library Science
	Elements of Economics	Economics
	Women Education	Education
Implicit	Organization of Knowledge	Library Science
	Treatment of Malaria	Medicine
	Feeling of Women	Psychology
Absent	Freedom of Lucky	Literature
	Land of Nobody	Political Science

POSTULATE OF ISOLATE FACET

"Each isolate facet of a compound subject can be deemed to be a mini festation of one, and only one of the five fundamental categories".

Explicit	Facet of Library Classification	Library Science (BF)
		Classification (MP)
Implicit	Treatment of Malaria	Medicine (BF)
		Disease (MP)
		Treatment (E)
Hidden within a derived composite terms	Diabetes	Medicine (BF)
		Pancreas (P)
		Disease (MP)
Absent	Elements of Economics	Economics (BF)

Fundamental Categories

- P, M, E, S, T
- P – Is used for the wholeness of any subject is used to describe those facets of any subject which are generally unique to that subject at which give of its essential character or personals
- M – is category of facet which reflects substances, materials comprises constituent materials of all kinds
- E – Is a facet of category which characterize its exercise of energy
- Manifests in the form of action of one kind or the other It may also be identified in the form of functional concept. The action or function may be among and by all kinds of entities inanimate, animate, conceptual and initiative

Con…

Example:

1. Animal Disease
2. Classification of basic in the University Library
3. Teaching of Mathematics

Matter:

- More difficult them even of "Energy Category"

Two Kinds,

- Material
- Property

Example:

Classification of Periodicals in the University Library.

Personality

- Personality is greatest difficult
- Personality is it is too elusive and in effable
- Personality is SRR has adopted J.S Molls Method of residue in identifier personality category.

Example

Classification is Basic in the University Library

Rounds and levels

Postulate of Rounds for energy

- Round 1, Round 2
- [1E] [2E]
- One and the same subject more than once
- Postulate of Rounds for personality and Matter
- [1[P] [P]

Steps in classifying (i.e. Postulation procedure)

Step 0: Raw Title

Step 1: Expressive Title

Step 2: Title in Kernel terms

Step 3: Analyzed Title

Step 4: Transformed Title

Step 5: Title in Standard number

Step 6: Title in focal number

Step 7: Class number

Step 8: Verification

Step 81: Facet Analysis

Step 82: Digit by Digit translate

Con…

Raw Title:

Classification of periodicals in the University Library of Tamil, in 1970

Expressive Title

Kernel terms

Class Periodical

Analyzed Title

Class [E] Periodical [M]

Transformed Title

Helpful Sequence

BF, B

Title in state term

Focal number BC (34 [P]44 [M]8 [E]44 [S]N4 [T]

PRINCIPLES FOR HELPFUL SEQUENCE

- The basic purpose of classification is to provide a helpful sequence.
- The Process of Classification is the arranging of things according to likeness and unlikeness
- means the things are put together according to their degree of likeness and these separated according to their degree of unlikeness in library classification.
- **Sayers** has defined a helpful sequence as a sequence" showing the right subordination and correct coordination of subjects or classes.
- **Ranganathan** has ban advocated for APUPA pattern, which may be proved useful for providing a helpful sequence of the documents on the shelves. The APUPA pattern means the arrangement of documents according to the subjects Alien-Penumbral-Umbral-Penumbral-Alien.

Explanation

- A totally relevant document to the subject sought should placed at the centre as **Umbral.**
- Related documents to the subject sought should placed nearer to it i.e before and after it as **Penumbral.**
- The documents which totally irrelevant are placed at a distance from the subject sought as **Alien.**
- This is the most helpful sequence in which the documents can be arranged on the shelves the library.

CON..

Ranganathan has provided the following principles for helpful sequence

- Principle of Increasing Quantity
- Principle of later in time
- Principle of later in evolution
- Principle of Spatial Contiguity
- Principle of Increasing complicity
- Principle of Canonical Sequence
- Principle of favored category or Literary Warrant and
- Principle of Alphabetical Sequence

1. Principles of Increasing Quantity

Ranganathan has enunciated the principle of increasing quantity as "if the subjects in an array of subjects or isolates in an array of isolates admit of quantitative distinction they may be arranged according to their increasing quantity. If it is helpful".

Examples: CC

- Under B6 Geometry
- B 61 Lines
- B 62 Planes
- B 63 Three dimensions
- B 64 Four Dimensions

Examples: DDC

Under 516 Geometry

516.21 Generalities

516.22 Plane Geometry

516.23 Solid Geometry

516.24 Trigonometry

2. Principles of Later-in-Time

Ranganathan has enunciated the principles of Later –in Time "If subjects in as array of subjects or isolates in an array of isolates have originated in different times there should be arranged in a parallel progressive time sequence".

Examples: CC

- T Education
- 71 Pre-Secondary
- 72 Secondary
- 74 University
- 75 Sex Education
- 751 Male
- 752 Female

Examples: DDC

- 370 Education
- 372 Elementary
- 373 Secondary
- 374 Adult
- 375 Curriculums
- 376 Woman Education
- 377 Schools and Religion

3. Principles of Later-in Evolution

Ranganathan has enunciated the principles of Later-in-Evolution as "If the subjects in an array of subjects or the isolates in an array of isolates belong to the different stages of evolution they should be arranged parallel to the evolutionary sequence".

Examples CC	**Examples: DDC**
O Literature	800 Literatures
O111 English Literature	820 English Literature
O111.2 English Drama	822 English Drama
O111.2J64 English Drama	822.33 William Shakespeare
O111.2J64,51 Hamlet	822.3357

- Hamlet
  (Shakespeare's Drama)

4. Principles of Spatial contiguity

Ranganathan has enunciated the principles of Spatial contiguity as " If the subjects or isolates in an array of isolates occur contiguously in space roughly along unidirectional line or a radial line or a circle-they should be arranged in a parallel spatial sequence.

Examples CC

Space Isolate

- 4 Asia
- 41 China
- 42 Japan
- 43 South East
- 44 India
- 45 Iran

Examples DDC

Area-Table -2

5 Asia

51China

52 Japan

53 Arabian Peninsula

54 India

55 Iran

5. Principle of Increasing Complexity

Ranganathan has enunciated the principle of increasing complexity as "If the subject in an array of subjects or classes in an array of isolates show different degree of complexity, they should be arranged parallel to the sequence of increasing complexity.

Example: CC

- S Psychology
- S:1 Nervous system
- S:3 characters of consciousness
- S:4 Cognition conception
- S:5 Feeling Emotion Affection

Examples: DDC

150	Psychology
152	Physiological Psychology
152.1	Sensory Perception
152.3	Movements and Motor function
152.4	Emotions and feelings

6. Principle of Canonical Sequence

Ranganathan has enunciated the "principle of Canonical Sequence as "if the subjects in an array of subjects or the isolates in an array of isolates are traditionally referred to in a specific sequence…. It will be convenient to conform to this traditional sequence".

Examples: DDC

- 351 Central Governments (Executive)
- 351.01 Foreign Affairs Departments
- 351.02 Finance Departments
- 351.03 Home affairs
- 351.05 Justice Departments
- 351.06 Defense Department

7. Principles of Favored Category

The principles of favored category has been enunciated as “the subjects in an array of subject or the isolates in an array of isolates may be arranged in the sequence of the decreasing quantity of the document published or anticipated to be published on them”

Example : CC

- J38 Seed
- J381 Rice
- J382 Wheat
- J383 oat
- J384 Rye
- J385 Corn
- J386 barley

Example : DDC

677	Textiles
677.1	Textiles of best fibers
677.2	Textiles of seed-hair fibers
677.3	Textiles of animal fibers
677.4	Textile of Man –made fibers

8. Principles of Alphabetical Sequence

The principles of alphabetical sequence has been enunciated by Ranganathan as "when no other sequence of the subject in array of the subject or isolates in an array of isolates is more helpful they may be arranged alphabetically by their names current in international usage.

Example : CC

- Brands of Machine

D5125	Bicycle	J381	Rice
D5125A	Atlas Cycle	J381B	Basmati Rice
D5125H	Hero Cycle	J381P	Parmal Rice
D5125HE	Hercules Cycle		

Thank You