**Doctor Harisingh Gour Vishwavidyalaya**

**M.Lib.I.Sc: FIRST SEMESTER**

**Knowledge Organisation and Information Processing:**

**Advanced Classification Theory**

**Unit-I: Information and Knowledge**

Information: Growth and development

Knowledge: Structure, types and attributes

Modes of thinking: Authority Centered, Tenacious, Speculative and Positivistic

Modes of formation of subjects

**Unit-II: Classificatory Principles**

isolates and categories: comparative study

Normative Principles of W.C.B. Sayers, H.E. Bliss and S.R. Ranganathan

Notational Systems: Principles, capacities and telescoping of array

Indicator Digits

Comparative study of UDC and CC: Basic principles, subject representation, notational

system and revision policy

**Unit-III : Recent Trends in Classification studies**

Trends in classification

Contribution of CRG, DRTC, ISKO

Design of depth classification scheme

Web Classification, Problems of Classification in electronic documents

**Information Storage and Retrieval**

**Unit-I Information Storage and Retrieval System**

-Definition, scope and components

-Databases:

-Information storage and file organization.

-Artificial intelligence: Expert systems and Natural Language Processing.

**Unit-II Subject Indexing and Abstracting**.

-Study of Citation indexing.

Automatic indexing.

-Canons of Abstracting.

Auto-Abstracting.

-Information Consolidation and Repackaging

**Unit-III Information Searching, Retrieval and Evaluation of IR Systems**

Web Browsers, Search Engines

-Search techniques: Online Searching techniques and retrieval.

-Evaluation of IR system.

-Important test result: Cranfield, MEDLARS, SMART

**Information Systems and Programs**

**Unit –I Information System : Basics**

-Information System: Basic types, characteristics and components.

-Information Organisation as a System: Libraries, Documentation and Information

Centres, Information analysis Centres, Referral Centres, Translation Centres,

Reprographic Centres.

Planning and Design of National Information System, National Information Policy,

-National Information Systems (objectives, functions, services, products ): NISCAIR,

DESIDOC, NASSDOC, SENDOC, NDCMC, ENVIS, NCSI, NIC, BARC.

-International Information System: MEDLARS, AGRIS, INIS, INSPEC, DEVSIS, UNISIST

**Unit-II Library and Information Network**

-Library Network, objectives, structure and functions.

-National Network: INFLIBNET, DELNET, NICNET.

-International Networks: INTERNET, OCLC, RLIN

-Library Consortia: INDEST, FORSA, INFONET, CSIR E-Journals Consortium

**Unit-III Information Users and Information needs.**

-Categories of information user.

-Information: Definition and models.

-Information seeking behaviour.

-User studies: methods, techniques and evaluation.

-Role of information systems and networks in technology transfer and national

Development.

**Knowledge Organisation and Information Processing:**

**Advanced Cataloguing Practice**

**Unit-1**

Manuscripts

Cartographic materials

Sound recording

**Unit-2**

Motion picture & video recording

Electronic Resources

Three- Dimensional Artefacts and Realia

**Unit-3**

Serials ( According to AACR2 and CCC)

**Indexing Language and Bibliographic Description**

**Unit-I Subject Analysis and Representation**

-Subject Analysis: Definition and scope

-Problems of alphabetical subject representation

-Contribution of C.A. Cutter, J. Kaiser, S.R. Ranganathan, J.E.L. Farradane and Eric J.Coates

**Unit-II Controlled Vocabulary.**

-Definition and characteristics of indexing language.

-Vocabulary control and devices

-Thesaurus: Structure and Construction.

**Unit-III Bibliographic Description and Data exchange Protocols**

.

-Current trends in standardization in description and exchange:

MARC, UNIMARC, ISO2709, CCF.

-Bibliographic description: Z39.50 protocols

OAI-PMH

**Electronic Information Resources**

**Unit -1: Introduction**

Electronic Information resources: Meaning, need and advantage over print media

Types: E-Journals, e-Books, e-Theses, e-newspapers, Blogs, Wikis, Portals.

Virtual Libraries and Digital Libraries

Study of the features and functionality of following electronic resources:

Dictionary.com, Encyclopedia Britannica, Wikipedia, ACM digital Library, IEEE / IEE

Electronic Library Online (IEL), PLOS

**Unit -2: Databases, websites and repositories**

E-databases: Free and subscribed databases; bibliographical and full text databases,

Portals and Subject gateways

Study of the features and functionality of following electronic resources:

Emerald, EBSCO, PsycINFO, Elsevier Science, PubMed Central, J-Gate, J-Store, SCOPUS,

Web of Science, SciFinder Scholar

**Unit -3: LIS e-resources**

Institutional Repositories and Open Archives

Electronic Resources in Library and Information Science

Study of the features and functionality of following electronic resources:

ROAR and DOAR, LISA, LISTA, LIS LINKS, ALIS, SRELS Jr. of Inf. Management, ALA,

ILA

**INFORMATION TECHNOLOGY APPLICATIONS**

**TO LIBRARY AND INFORMATION CENTRES**

**Unit – I : Information Technology: Basics**

Information Technology: Definition, scope and objectives

Historical development of IT

Facets of IT

Application of IT in Libraries

Trends in IT

**Unit – II : Electronic Media and Publishing**

Electronic Media: Magnetic tapes, CD-ROM, Multimedia and WWW

Products of E-publishing: e-Books, e-Journals, e-Databases

Benefits and Shortcomings of e-publishing

Preservation and conservation of electronic media

**Unit – III : Networking and Internet**

OSI model

Switching system

Internet : Definition, genesis, growth and development, connectivity

Internet resources and services

Internet protocols and standards

Web design : Introduction, Salient features of SGML, HTML, DHTML,

XML

Internet Security

**RESEARCH METHODOLOGY**

**Unit – I: Research Methods: Basics**

Research:, meaning, need and purpose

Types of research: Pure, Applied, Individual and Collaborative research,

Inter disciplinary and multi-disciplinary research

Methods of research: Descriptive, comparative, historical, case study,

experimental, scientific

Spiral of scientific method

**Unit – II: Planning and Design**

Research Design, and purpose, attributes, components

Research problem: Its identification and formulation, types and components

Hypothesis, usefulness, quality, types and formulation

Literature search and its use: Print, non-print, electronic sources

Synopsism and essential components

Methods of data collection: Questionnaire, Interview, Observation

Sampling techniques

**Unit – III: Research Report Writing**

Report writing: Structure, style, controls

Guidelines for research reporting

Style manual idea and utility

**KNOWLEDGE ORGANIZATION AND**

**INFORMATION PROCESSING: ADVANCED CLASSIFICATION**

**PRACTICE**

**Unit-1**

Classification of subject titles by CC and simple subject titles by UDC

**Unit-2**

Classification of titles by CC (6th Rev. Ed.) and all types of subject titles by UDC

(Abridged/Medium Ed.).

**Unit-3**

Classification of simple, compound and complex titles by CC (6th Rev. Ed.) and all types of

subject titles by UDC (Abridged/Medium Ed.).

**STATISTICAL TECHNIQUES AND BIBLIOMETRICS**

**Unit – I : Bibliometrics**

Bibliometrics: Definition, facets, usefulness in research

Bibliometric parameters

Bibliometric laws: Bradford’s Law of Scattering, Ziff’s Law, Lotka’s Law

**Unit – II : Data Analysis and Citation Analysis**

Statistical Analysis and Interpretation of Data: Frequency distribution,

Measures of central tendency: Mean, Mode and Median

Regression Analysis and Correlation Coefficients

Content Analysis

Citation Analysis

Presentation of data: Tables, Charts, Graphs

**Unit – III : Bibliometrics and related study**

Libra metrics, Scientometrics, Informatics, Cybermetrics, Webometrics

**DIGITAL LIBRARY**

**Digital Library (DL)**

**Unit 1. Introduction**

genesis, definition, objectives, scope, components, soft wares for digital library

digitization – devices (scanners, cameras)software, process

data warehousing, data mining

Metadata- history, nature, standards

Virtual library

**Unit 2. Digital collections & évaluations**

e-documents – nature, acquisition of E-Books, E-Journals, E-zine, E-Reference Sources,

Digital

Documents (Born and legacy documents)

databases – types (bibliographic, full-text) –nature,

Evaluation

**Unit- 3. Open access movement & DL case studies**

-Open Access Movement and Institutional repositories.

Case study of select digital Libraries- California Digital Library; Alexandria Digital Library;

ArXive; Cogprintis; Vidyanidhi

**ORGANISATION AND MANAGEMENT OF PUBLIC LIBRARY SYSTEM**

**Unit –I : Basic thoughts**

Public library system: Definition, types and their functions

Role of libraries in public institutions

Role of RRRLF in the development of public libraries.

Human Resource Management

**Unit – II : Financial Management and Environmental Management**

Budgeting: Types or methods

Library Building Planning: Its Concept, elements and types.

Furniture fitting and equipment: Standard and specifications.

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**Unit – III : Collection Development and User Services**

Collection development principles, policy and tools

User services : Types

Marketing of information Services and Products: Strategies

Maintenance: Weeding, Stock Verification, Preservation of Library Materials

**ORGANISATION AND MANAGEMENT OF ACADEMIC LIBRARY**

**SYSTEM**

**Unit –I : Basic thoughts**

Academic library system: Definition, types and their functions

Role of libraries in academic institutions

Role of UGC in the development of college and university libraries.

Human Resource Management

**Unit – II : Financial Management and Environmental Management**

Budgeting : Types or methods

Library Building Planning: Its, elements and types.

Furniture fitting and equipment: Standard and specifications.

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**Unit – III : Collection Development and User Services**

Collection development principles, policy and tools

User services : Types

Marketing of information Services and Products: Strategies

Maintenance: Weeding, Stock Verification, Preservation of Library Materials

**ORGANISATION AND MANAGEMENT OF RESEARCH AND**

**TECHNICAL LIBRARY SYSTEM**

**Unit –I : Basic thoughts**

Research and Technical Library system: Definition, types and their functions

Role of libraries in Research and Technical institutions

Agencies and their Role in the promotion and development of Research and

Technical Libraries

Human Resource Management

**Unit – II : Financial Management and Environmental Management**

Budgeting : Types or methods

Library Building Planning: elements and types.

Furniture fitting and equipment: Standard and specifications.

**Unit – III : Collection Development and User Services**

Collection development principles, policy and tools

User services : Types

Marketing of information Services and Products: Strategies

Maintenance: Weeding, Stock Verification, Preservation of Library Materials

**SYSTEM ANALYSIS AND DESIGN**

**UNIT – I : System Approach**

System : Definitions, characteristics, components

System approach to a Library

**UNIT – II : System Development Life Cycle**

Approaches to system development

System development life-cycle phases

Roles involved in SDLC

System Development Tools (Flow chart, data flow diagrams, decision

tables, Decision Tree)

System Development Process (System Analysis And System Design)

**UNIT – III : System Management**

Management Information System (MIS)

Project management: PERT/CPM

System evaluation: SWOT (Strength Weakness Opportunities Threat)

Total Quality Management (TQM): Definition, and elements

Information Reengineering

**B.Lib.I.Sc:**

**Foundations of Library and Information Science**

**Unit-I Libraries : Modern, Role and Types**

Social and historical foundation of a library: Library as a social institution

Classification of libraries, their distinguishing features and functions: Public

Library, Academic Library, Special Library

Role of library in formal and informal education

Five Laws of Library Science and their implication in library and information

activities.

**Unit-II Library and Information Profession**

Attributes of a profession

Librarianships as a profession

Professional Ethics, Professionalism

Professional Associations and their role in the development of profession.

Study of selected international and national associations and organizations: their aims,

objectives and activities (ILA, IASLIC, IFLA, ASLIB, LA, ALA).

**Unit-III Development of Libraries and Library Movement**

A brief sketch of library movement with special reference to India since

1900. Present library situation in M.P.

Resource sharing and library networking: Definition, and area of

Resource sharing.

Library Legislation: purpose and essential features.

Library Legislation in India with State Library Acts.

**Knowledge Organisation and Information Processing: Classification Theory**

**Unit-I: Library Classification : Basic**

Definition, need, purpose and function

Knowledge classification and Book Classification: , features

Species of schemes of classification: Enumerative Vs Faceted/ Analytico- Synthetic

Classification

Subjects and Isolates: Types and characteristics

Study of DDC and CC: Salient features, arrangement of Main Classes, study of tables

and relative index

**Unit-II: Theory of Library Classification**

Classification Theory: , importance and types

Canons, Principles of Helpful Sequence and Facet Sequencen of Call Number, Class Number, Book Number, Collection Number and their functions

of Categories

Notational systems: Types, characteristics, qualities and functions

**Unit-III: Facet Analysis and Devices**

Facet analysis: Definition and

Phase relation

Devices in classification

of Sector and Zone in notation

Systems and Specials

**Information Technology: Basics**

**Unit-I Introduction to computer**

Definition, , characteristics.

Historical background: generation of computers.

Types of computers.

Basic units of a computer.

Memory and its types-Primary and Secondary.

Input/Output devices.

**Unit-II Software Components**

Types of Software: application and system software.

Operating system: DOS and WINDOWS.

Programming language: Introduction.

Introduction to Multimedia

Definition, types of networks: LAN, WAN, MAN.

Networking: and topologies.

**Unit-III Networking and Digital Library**

areas of automation

Library Automation Software: Stand-alone and Integrated

Automation of in-house operation: Acquisition, Cataloguing, Circulation, Serial

Control, OPAC and Library Statistics

Salient features of SOUL and CDS/ISIS.

Digital Libraries: Introduction

**Knowledge Organisation and Information Processing: Classification Practice**

**Unit-1**

Steps in classifying a document.

Classification of Simple Titles by Colon Classification (6th Rev. Ed.) and Dewey decimal

classification (19th edition) Scheme.

**Unit-2**

Classification of Compound Titles by Colon Classification (6th Rev. Ed.) and Dewey Decimal

Classification (19th edition) Scheme.

**Unit-3**

Classification of Simple, Compound and Complex Titles by Colon Classification (6th Rev. Ed.) and

all types of subject titles by Dewey Decimal Classification (19th edition) Scheme.

**Information and Communication**

**Unit-I Information Communication**

Data, Information and Knowledge: Conceptual difference

Information: Characteristics, nature, value and use

Communication of Information: Information generation and diffusion

Communication channels and models

Barriers to Information flow.

Trends in Scientific Communication

**Unit-II Library, Information and Society**

Information Science: Definition, scope and objectives

Information Society: Genesis and characteristics

Information Policy

Right to information.

Press and Registration Act

Intellectual Property Rights

**Unit-III Public Relations and Extension Activities**

Definition, facets and programs

Publicity and extension, outreach activities.

Library path finder (Guides)

Consultancy including Promotional Web Tools.

Changing role of Library and Information Centres in Society

**Knowledge Organisation and Information Processing: Cataloguing Theory**

**UnitI Nature of Library Catalogue:**

Definition, , and purpose of Library catalogue.

Difference between catalogue and bibliography, MARC, Meta data, Dublin core

Form of catalogue (physical forms including OPAC and inner forms)

Document Description: Types of entries in CCC and AACR2, rules for filing.

Canons of cataloguing.

**UnitII Cataloguing Dimensions**

Subject Cataloguing: subject headings, descriptors, choice of terms, subject

heading lists e.g. LCSH and SLSH.

Centralized, Cooperative Cataloguing, Union Catalogue

Prenatal cataloguing, Cataloguing in Publication Data.(CIP)

Descriptive and Selective Cataloguing.

**UnitIII Trends in Cataloguing**

Study of the rules of the choice and rendering of author headings in the

AngloAmerican Cataloguing Rules 2nd rev. ed., and CCC

Choice and rendering of Indic Names in AACR2

Problems of Non Book materials

Trends in cataloguing and standards in cataloguing

**Management of Library and Information Centres**

**Unit –I Management**

definition, difference between management and administration

Principles of Scientific Management :

Elements of Management Process POSDCORB.

Library organizational structure.

Library authority and Library committee.

Management Information System (MIS)

**Unit II Financial, collection management library routines and work flow**

**Financial management** (Sources of finance, Budgeting:, methods and techniques)

Sections of the library and their work flow: Acquisition, Technical, Circulation, Periodical,

Maintenance (Shelving, Stock Verification, Binding, Preservation, Weeding and withdrawal

of documents) Administration and Accounts Section

**Collection management**: Policy of book selection in Public, Academic and Special libraries.

Tools and sources of book selection.

Preparation and maintenance of library records: Accession Register, Shelf List Cards, Book

Selection Cards, Organizational Charts.

Library Statistics and Annual Reports.

UnitIII HRM and Physical planning of libraries

**Human Resource Management**: Staff recruitment selection and training, development,

motivation and quality improvement, Staff formula Job analysis and Job description.

**Physical Planning and Library Building** : Its, principles and types.

Furniture fitting and equipments: Standard and specifications.

**Information Services**

**UnitI Information Services: Indexing and Reprographic Service**

**Information Service**: Meaning, purpose and importance

**Index and indexing**: Meaning, characteristics, purpose and function.

Types of indexing: Precoordinate and Post coordinate indexing.

Chain Indexing, PRECIS, POPSI, UNITERM Indexing

Keyword Indexing: KWIC, KWOC, KWAC, KWWC.

**Reprographic services**: Meaning and utility.

**UnitII Information Services: Alerting , Abstracting,and Translation Service**

**Alerting Service**: Meaning , purpose and importance CAS and SDI

**Abstract and Abstracting**: Meaning and characteristics. Types of Abstract: Indicative,

Informative, Slanted, Critical, Graphic, Numerical and Telegraphic. Qualities of Abstract,

essential elements and format.

**Translation services:**, types and utility

**UnitIII Reference Service and Documentation:**

**Reference service**:, definition and trends.

Initiation of new library user.

Reference Interview

Ready reference service

Long range reference service.

**Documentation:** Meaning, genesis, scope, purpose and function.

Facets of documentation: Documentation work and Documentation service

Documentation List: Its kind and preparation.

Use of IT and Multimedia in Information Services

**Knowledge Organisation and Information Processing:**

**Cataloguing Practice**

Cataloguing of books according to AACR2(1988) and CCC 5th ed.

**Unit I**

Personal author

Pseudonymous Author

**Unit II**

Anonymous Book

Corporate Bodies

**Unit III**

Multivolume Books

Composite Books

**Doctor of Philosophy (PhD)**

**Research Methodology in Library and Information Science**

**Unit-1**: **Research Domain (12 hrs.)**

Introduction to Research Methodology

Philosophical foundation of Library and information Science Research

Research Problem and Research Design

Identification and formulation of problem, Formulation of Hypotheses

**Unit-2: Research Methods in LIS and Research Metrics (12 hrs.)**

Types of Research Methods: Quantitative and Qualitative

Research Techniques and Tools: Questionnaire, Interview, Observation, Schedule, Check-list,.

Research Sampling Techniques

Metric Studies in LIS: Bibliometrics, Scientometrics, Informetrics, Webometrics, Altmetrics and Citation analysis.

**Unit-3: Data Analysis and Interpretation (12 hrs.)**

Techniques for analyzing data

Qualitative content analysis

Interpretation and Presentation of Results: Table, Charts and Graphs

**Unit-4**: **Current Research Trends and Ethics (12 hrs.)**

Current Research Trends in Library & Information Science

Research Ethics and Integrity

**Unit-5 : Research Report Writing (12 hrs.)**

Research Report, Structure, style, Writing

Guidelines for research reporting (Style manuals – Chicago, MLA, APA, etc.

Citation styles: Footnotes, References including Bibliographic description.

**Information Communication & ICT Applications**

**Unit-1: Information Communication (12 hrs.)**

types, generation,

Channels, Process and Barriers

Communication models

Communication skills

**Unit -2: ICT -Overview (12 hrs.)**

Web Technology & Interactive Digital Resources: Nature, Features and Types;

Internet and Web Technology including Library Service Web Tools (Generations starting with 2.0), Information Mashup, Social Network etc., LIS Discussion Forums and Mailing Lists (ListServs)

OAI and Metadata harvesting, Data mining and data warehousing, Standards - Z39.50, RDA, Dublin Core

**Unit -3: ICT Applications (12 hrs.)**

Overview: Web Browsers, Search Engines

Selected Research Application Soft wares including spreadsheets and graphing tools for data handling and analysis.

**Unit -4: On-line Search and Retrieval (12 hrs.)**

Subject Analysis and Content Analysis

Search Techniques

Search Strategy

**Unit -5: Research Reporting (12 hrs.)**

Technical writing: methods for preparation and reporting

Research Report: Format, preparation

Electronic content creation and dissemination.

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**Research and Publication Ethics (RPE)**

**RPE 01: PHILOSOPHY AND ETHICS (4hrs.)**

Introduction to philosophy : definition , nature and scope, branches

Ethics: definition, moral philosophy, nature of moral judgements and reactions

**RPE 02: SCIENTIFIC CONDUCT (4 hrs.)**

Ethics with respect to science and research

Intellectual honesty and research integrity

Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP)

Redundant publications: duplicate and overlapping publications, salami slicing

Selective reporting and misrepresentation of data

**RPE 03: PUBLICATION ETHICS (7hrs.)**

Publication ethics: definition, introduction and importance

Best practices/ standards setting initiatives and guidelines: COPE, WAME, etc.

Conflicts of interest

Publication misconduct: definition, problems that lead to unethical behavior and vice versa, types

Violation of publication ethics, authorship and contributorship

Identification of publication misconduct, complaints and appeals

Predatory publishers and journals

**PRACTICE**

**RPE 04: OPEN ACCESS PUBLISHING (4hrs.)**

Open access publications and initiatives

SHERA/RoMEO online resources to check publisher copyright & self –archiving policies

Software tool to identify predatory publications developed by SPPU

Journal finder/ journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggester, etc.

**RPE 05: PUBLICATION MISCONDUCT (4hrs.)**

**Group Discussions (2hrs.)**

Subject specific ethical issues, FFP, authorship

Conflicts of interest

Complaints and appeals: examples and fraud from India and abroad

**Software tools (2hrs.)**

Use of plagiarism software like Turnitin, Urkund and other open source software tools

**RPE 06: DATABASES AND RESEARCH METRICS (7 hrs.)**

**Databases (4hrs.)**

Indexing databases

Citation databases: Web of Science, Scopus, etc.

**Research Metrics (3hrs.)**

Impact Factor of journal Citation Report, SNIP,SJR, IPP, Cite Score

Metrics: h-index, g-index, i10 index, altmetrics.

**Community Information and Services**

**Unit -1 Community Information (12 hrs.)**

meaning, definition, , scope, uses

Information Literacy

Application of ICT- Radio (FM and other) TV,Computers, Mobile Technologies and others

**Unit -2 Community Information System (12 hrs.)**

s analysis, planning, designing

Application, execution and evaluation

Invisible colleges, Folklore, Mass media, etc.

**Unit-3 Designing Web enhanced Community Information System** (**12 hrs.)**

Discovery phase: Goals

Project Plan

Technical Brief of the Website

**Unit -4**. **Community Education (12 hrs.)**

Information s of Rural/ Urban community

D sign an v o m n o In orma ion Sys m or G ’s

Indian Intiatives—Gyan Vahini, Akshya, Gyandoot, Setu, e-Seva, Bhoomi, etc.

**Unit- 5**. **Areas of Community Information Services (12 hrs.)**

Sustainability studies – funding, executing, evaluation, reporting

Selected areas: Health, Education, Employment, Agriculture, Village Industries, Utilisation of Local Resources, Transport, Daily necessities,

Government Welfare Schemes, Consumer Services, Housing, etc.

**Library and Information Science Education and Research**

**Unit-1**: **Library Science Education (12 hrs.)**

Sociology of library and information science education

Level of courses in education for librarianship and their objectives

Continuing education for Library & Information personnel

Partnership with Different Agencies (teaching departments, government bodies at

National level)

**Unit-2**: **Accreditation of LIS Courses (12 hrs.)**

Curriculum Design: Methodology

Role of UGC in curriculum development

Teaching techniques and evaluation of student performance

**Unit-3**: **Accreditation Issues (12 hrs.)**

Role of UGC

Role of NAAC

**Unit-4**: **Trends in Library and Information Science Education (12 hrs.)**

Research trends at national and international levels

Faculty development: Manpower planning and its impact on library and information Science Education

Development of research programme in library and information science

**Unit-5: Current Research Areas in Library and Information Science (12 hrs.)**

Changes in the LIS Education and Research

Content analysis of the recent Information

Electronic Commerce in LIS Education

**Bibliometrics**

**Unit 1: Introduction to Bibliometrics (12 hrs.)**

Scope and Features of Librametry

Bibliometrics, Scientometrics, Informetrics, Cybermetrics and Webometrics

Citations vs. Hyperlinks,

Altmetrics and Article-Level Metrics

**Unit 2: Theories, Laws and Indicators (12 hrs.)**

Bi iom ric Laws: Lo ka’s Law, Bra or ;s Law, Zi ’s Law; m irica Laws o ric , Garfield, Application of Bibliometric Laws in Web;

Bibliometric indicators (Journal Impact factor, h-index and its derivatives, etc.).

Webometric indicators (Web Impact Factor, WISER, etc.)

**Unit 3: Citation Analysis and its Application (12 hrs.)**

Journal Ranking; Age study and obsolescence;

Authorship Collaboration; Self-citation, Productivity,

Mapping of Science; Bibliographic coupling: Co-word, Co-citation coupling.

**Unit- 4 : Bibliometric and Webometric Tools (12 hrs.)**

Bibliometric tools – SCI, SSCI, A&HCI, SCOPUS, Google Scholar, etc;

Webometrics tools – Generic search engines and specialized tools (LexiURL, SocSciBot Internet Archive, Pajek, etc.)

Altmetrics tools (Altmetric, ImpactStory, PloS, etc.); OA movement and Informetrics.

**Unit- 5: Bibliometric and Statistical Analysis (12 hrs.)**

Statistical Analysis and Interpretation of Data: Frequency Distribution, Measures of Central Tendency: Mean, Median and Mode

Regression Analysis and Correlation Coefficients

**Knowledge Organization and Information Processing**

**Unit 1: Subjects and Isolates (12 hrs.)**

Types and Modes of formation of subjects

Isolates: Common and Special, Speciators

Categories – Ranganathan, Farradane, Vickery, etc; ,

**Unit 2: Theory of Library Classification (12 hrs.)**

General Planes of work

Normative principles – Laws, Canons,

Principles of classification by Sayers, Bliss, Richardson and Ranganathan;

Postulates; Theory of Integrative Levels;

Study of special classification schemes- Design of special classification schemes

**Unit 3: Terminology and Classificatory Language (12 hrs.)**

Terminology

Notational System

Mnemonics

**Unit 4: Schemes of Library Classification: Comparative study (12 hrs.)**

CC, DDC, UDC

Revision Policy

**Unit 5: Classification and Computers: Recent Trends (12 hrs.)**

Classification and Digital resource organization

Web Dewey;

Use of DDC for organization of digital resources;

**Sources of Information for Research**

**Unit 1**. **Information Sources (12 hrs.)**

Sources, characteristics and their types

Institutional Sources: Organizations, Research projects, etc.,

Documentary / Non- Documentary sources

Non-book materials Internet as source of information; Reference Vs Plagiarism,

**Unit –2. Descriptive References Sources**: **Features (12 hrs.)**

Dictionaries, Encyclopedias, Directories, Biographical, Geographical, Year Books and Almanacs, Current Reference Sources

**Unit -3. Bibliographic Sources**: **Features (12 hrs.)**

Bibliographies

Indexing & Abstracting sources,

**Unit -4. Digital Information Sources (12 hrs.)**

Electronic resources-web resources

Databases, Consortiums, Subject Gateways, Portals, Blogs, Wikis,etc.

**Unit-5 Online Information and Reference Sources (12 hrs.)**

Illustrative- IEEE / IEE Electronic Library Online (IEL), Emerald, EBSCO, PsycINFO, Elsevier Science, PubMed Central, J-Gate , J-Store, Web of Science, SCOPUS, SciFinder Scholar, PLOS, DOAJ, RePEc, Google Scholar), *Commercial Tools (e.g. Xrefer.com), Cross Publisher*

**GURU GHASIDAS VISHWAVIDYALAYA, BILASPUR (C.G.)**

**Foundations of Library and Information Science**

**Unit-I Library as a Social Institution**

Social and Historical foundation of Library

Different Types of Libraries-their distinguishing Feature and Functions.

National Libraries: features and activities, National Library of India, UK, and USA

Role of Library in Formal and Informal Education

**Unit – II Normative Principals and Laws Relating to Libraries and Information.**

Five Laws of Library Science and their Implication

Library Legislations- and essential features.

Library Legislation in India.

Feature of Chhattisgarh Public Library act (2008)

Press and Registration act and Delivery of Books (Public Library) act.

Copyright act

**Unit-III Library Development**

Development of Libraries with special reference to India.

Organization and Institutions involved in the development of Library and Information

Services.

Commission-Committees Reports in Library Development with special reference to India

**Unit- IV Resource Sharing, Library Networks and Extension Activities**

Resource Sharing: and Methods.

Library and Information Networks and Consortia’s. and purpose

National and International Library and Information Networks and Consortia’s

Publicity and Extension Services

**Unit- V Library and Information Profession**

Librarianship as a Profession.

Professional Ethics

Professional associations and their role.

Professional ,National and International associations

**Knowledge Organization - Classification (Theory)**

**Unit-I Universe of Knowledge**

Structure and attributes

Modes of formation of subjects

Different types of subjects

Universe of subjects as mapped in different schemes of classification

**Unit-II Theory of Library Classification**

Definition:, Purpose and Functions of Library Classification.

General Theory of Library Classification

Mapping of Subjects in different schemes of Classification (DDC, UDC, CC)

**Unit- III Postulates and Approach to Classification**

Postulation and their usefulness in classification of fundamental categories;

Facet analysis, facet sequence;

Phase Relations-different types;

Common isolates.

**Unit –IV Notational System**

Notation-, functions, and types;

Hospitality in array &Chain;

Devices;

Call number and its structure.

**Unit- V Study of selected scheme of classification**

General V/S Special Classification ;

Dewey Decimal classification;

Universal decimal classification;

Colon classification.

**Knowledge Organization - Cataloguing (Theory)**

**Unit– I Bibliographical Description**

Catalogue –purpose, structure and types, physical forms including OPAC rules.

Normative Principles of Cataloguing

Overview of principles and practice in document description.

Standard cods of cataloguing.

**Unit– II Format of catalogue entry**

Kinds of entries

Data elements in different types of entries

Filing of entries-classification and Alphabetization.

Centralized and Co-operative Cataloguing, Union Catalogue

**Unit–III Choice and Rendering of Headings, Subject Headings**

Personal Names– Western &Indian, Corporate Authors, Pseudonyms, Anonymous

Works, Uniform Titles

Salient Features of CCC &AACR-II: Comparative Analysis

Subject Heading Lists: LCSH and SLSH

**Unit–IV Subject Indexing**

Subject Cataloguing-Purpose problems.

Chain procedure; Sears List, LC, PRECIS, POPSI.

**Unit–IV Subject Indexing**

Cataloguing of Non-book Materials

OPAC, WEBOPAC

**Computer Basic for Libraries (Theory)**

**Unit- I Fundamentals of Computers**

Computer -Definition, , Scope and Objectives

Historical Development of Computers, Generation of computers, classification of

Computers.

Computer Devices: Input and output

Computer-Impact on Libraries and Society

**Unit- II Computer Architecture**

Computer Hardware

Computer Software: Type and Use

Languages: Machine Level Language, Assembly Level Language, and High Level Language

Storage Devices: Permanent Drive, Flash Drive, Cache, USB, and DVD

Features of Indian Library Automation Software packages

**Unit- III Communication Technology: Tools& Techniques**

Telecommunication Technology: Media, Mode and components

Networking Media, Optical Fiber, Ethernet, Wireless Device, Bluetooth, Hubs, Router and

modem

Types of Network: LAN, WAN, MAN

Network Topologies: Bus, Star, Ring, etc.

Multiplexing &Modulation: & Types

**Unit-IV Information Systems and Networks**

Library and Information Networks: DELNET, INFLIBNET, CALIBNET etc.

CSIR E-Journals Consortium, UGC-INFONET Digital Library Consortium

Internet: Web Browser, Web Tools, Search Engines, Web2.0, Web3.0, Web Directories,

Subject Gateways, library Portals, etc. Intranet and Extranet

Effect and Side-effect of Internet, Internet Security

**Knowledge Organization: Classification and Cataloguing (Practice)**

**Unit-I Classification of Documents (using latest available edition of DDC)**

Classification of documents representing simple subject

Classification of document having common isolates

Classification of documents representing compound subject

Classification of documents representing complex Subject

**Unite-II Assignment of Book Number**

(Using at Least One Standard Book Numbering System)

**Unit- II Cataloguing of Documents (Using at least one standard cataloguing code.)**

cataloguing of simple documents

Cataloguing of complex documents

**Unit- III Subject Cataloguing**

Assigning Subject Headings using at least one: standard subject headings

**Discipline Specific Elective – DSE1**

**School Librarianship**

**Unit – I School Library: An Overview**

School Library: Importance, Purpose and Functions

Setting up and running a School Library

Role of School Library in Education

School Library as a Learning Centre

**Unit – II Development of School Library**

Five Laws of Library Science: Implications in School Library

Role of various Committees/Organization in Promoting School Libraries

Library Automation: feature of e-Gyankosh

Library Rules

**Unit – III Collection Developments in School Library**

School Library: Types of Collections

Collection Development Policy

Local Library Committee: Its Role in Collection Development

Stock Maintenance: Preservation, Verification and Weeding Policy

**Unit – IV School Library Services**

Developing Reading Habits: Scanning, Skimming, Extensive and Intensive reading

Newspaper Reading, Clipping and Collage

Extension Activities in School Library

Information Literacy

**Unit – V Library Management**

Library Classification and Cataloging

Financial Management of School Libraries

File and Registered Management in School Library

Library Orientation

**Public Librarianship**

**Unit-1 Public Library**

Public Library: Meaning Importance, Objective and Function ;

UNESCO Public Libraries Manifesto: 1972,1994 and 2004;

History and Development of Public Library in India and UK.

**Unit- II Resource Development**

Financial Resources of Public Library ;

Collection Development Policies in Public Library;

Human Resources: Nature, Size, Selection and Recruitment.

**Unit– III: Management and Organization**

Organizational Structure of Public Library ;

Planning and Administration;

Technical Processing;

Element in the Design of Public Library Building.

**Unit- IV Public Library Services**

Types of Public Library Services;

Application of ICT in Public Library Services.

**Unit- V Outreach Activities**

Extension and Public Activities of Public Library;

Role of Public Libraries in Formal and Information Education.

**Special Librarianship**

**Unit-1Special Library**

Special Library : Characteristics and Functions;

History and Development of Special Library;

Changing Landscape of Information and Transformation of Special Libraries;

Changing Role of Library Professionals in the Emerging Information Scenario in Special

Library.

**Unit- II Resource Development**

Library Authority, Leadership and Decision Making Mechanisms;

Collection Development Policies in Special Library;

Preservation management and weeding out collections.

Circulation Management and Control.

**Unit– III: Management and Organization**

Planning and internal organization of building;

Planning and acquisition of equipment ;

Technical Processing;

Management of Technical Services.

**Unit- IV Public Library Services**

Types of Special Library Services;

Application of ICT in Special Library Services.

**Unit- V Outreach Activities**

Extension and Special Activities of Special Library;

Automation of special library operations and services.

**Library Management**

**Unit-1 Fundamentals of Management**

definition and scope

Principles and Elements of Management

Function and Principles of Scientific Management

Management school of Thoughts

Total Quality Management (TQM)

**Unit- II Resource Development**

Types of Information Resources, Selection Principles Including Communication Media

Different Types of Selection Tools and Their Importance

Human Resource Development : and Contours/ Structures

Personnel Planning

**Unit– III: Maintenance of Library**

Acquisition Procedures: Books and Non-Book Material

Acquisition of Periodicals and Serials

Technical Processing

Circulation Work

Maintenance, Shelving, Stock Verification and Binding Etc.

**Unit- IV Budgeting & Reporting**

Library Finance, Accounting: & Types

Library Budgets

Annual Report

Library Statistics

**Unit- V Planning**

, definition, and purpose

Library Committee : Function and Power

Library rules and regulation

Library building

**Information Sources &Services (Theory)**

**Unit- I Reference and Information sources**

Sources of Information:, Nature & Characteristics

Documentary Source of Information: Category and Types

Non Documentary Sources of Information, Digital Sources

Evaluation of Reference and Information sources

Reference Service:, Definition and Types

**UNIT- II: Sources of Information**

Evolution of Information Sources: Print & Non-print

Primary Information Sources: General introduction, Characteristics & examples

Secondary Information Sources: General Introduction Characteristics & examples

Tertiary Information Sources: General Introduction Characteristics & examples

**UNIT- III: Types of Information Services**

Information Services:, Definition, s and Trends.

Documentation Services: Abstracting and Indexing Services

Alerting Services, CAS, SDI, Reprographic Service, Translation Service, Document

Delivery and Referral Service

**Unit- IV Information Systems and Services**

Global -UNISIST, UNESCO-PGI, AGRIS, MEDLARS, INIS, etc

National-NISCARE (INSDOC), NASSDOC, DESIDOC, NISSAT,

INFLIBNET, NICNET, ERNET, DELNET, CALIBNET, etc.

**Unit– V Information Sources& Services on Web**

Web Resources: and Use

Types of Web Resources :E-journals, E-books, E-Theses,

E-resources in Science and Technology, Social Science and Humanities

Role of Reference Librarian and Information Officer in Electronic Environment

**Library and users**

**Unit– 1 User and their Information Needs**

Categories of Information Users

Information: Definition and models

Assessment of Information s of Different User Groups

**Unit– 2 Information Seeking Behaviors**

Theories of Behaviors Studies

s and Methods of Information Seeking Behaviors

Models of Information Seeking Behaviors

Information Searching Strategy and Principles

**Unit – 3 User Educations**

Concepts, Definition and s

Methods of User Education

Recent trends in User Educations

**Unit- 4 User Studies**

Types and Scope of user Studies

Evaluation of User Studies: Methods, Steps and Benefits

Methodology of User Studies

**Unit – 5 Recent trends and Developments**

Online Information Seeking Behaviors

Information needs of Persons with Disabilities

Techniques of Library and information Centers Survey

Information Literacy: Definition, Objectives and importance

**Computer Basic for Libraries (Practice)**

**Unit- I Operating Systems**

Commands of MS-DOS

Windows: Installation and Backup

UNIX/ Linux: Basic Commands

**Unit- II Text Processing Software**

Handling Text Data: MSWORD

Handling Numeric Data: MSEXCEL

Preparation of Presentation through Power Point

DTP Software

**Unit-III DBMS Software**

WINISIS

Database Management Software

**Unit- IV Database Search and Retrieval**

Offline Database

Online Database

**Unit-V Online search**

Use of Internet

How to Search on Web, Syntax and Semantic

**Information Sources and Services (Practice)**

**Suggested List of Reference/Information sources for Evaluation and Information Queries**

**Encyclopedias**

New Encyclopaedia Britannica

Encyclopaedia Americana

International Encyclopaediaof Social

Sciences

McGraw Hill Encyclopaedia of Science and

Technology, Encyclopaedia of Library and Information

Science

**(B)Dictionaries**

Webster’s Third New International

Dictionary of English Language

The Oxford English Dictionary

Funk and Wagnall Dictionary

**(C)Year Books and Almanacs**

Statement’s Year Book

Europe Year Book

India: A Reference Annual

Manorma Year Book

World Almanac and Book of Facts

**(D)Directories**

l. World of Learning

2. University Handbook

Directory of Scientific Research

Institutions in India

**(E)Biographical Sources**

International Who’s who

India’s who’s who

Directory of National Biography

**(F)Geographical Sources**

l. Chamber's World Gazetteers and

Geographical Dictionary

2. Webster’s Geographical Dictionary

Gazetteer of India: India Union

Fodor’s India/India Handbook

Britannica Atlas

**(G)Serial Reference Sources**

Ulrich's International periodical

Directory

Keeping’s Record of World Events

Asian news digest

Index India

Guide to Indian Periodical Literature

(**H)Bibliographies**

l. Indian National Bibliography

2. British National Bibliography

3. National Bibliography of Indian

Literature

Cumulative Book Index

S. Books in Print

Indian. Books in Print

**Hindi Sources**

l. Hindi Vishwakosh

2. Bhartiy Kahavat Sangrah

**Ability Enhancement Compulsory Course - AECC1**

**Communication Skill**

**Unit– 1 Communication Fundamentals**

Your Profile

Introducing the Institution

The Basics

Social Skills

**Unit– 2 Preparing for Job Interview**

The Job Interview

preparing your resume / Curriculum vitae

Preparing Your Portfolio

Your Profile

**Unit–3 Workplace Skill**

Body Language

Group Discussions

Telephone Skills

Presentation Skills

**Statistics for Librarianship**

**Unit– 1 Methods of Data Collection**

Data Collection Techniques: Primary and Secondary Data

DataCollectionTools:Questionnaires,Schedule,Interview,ObservationScales And Check Lists,

Library Records and Reports

Sampling Techniques

**Unit– 2 Data Analysis and Interpretation**

Descriptive Statistics: Measures of Control Tendency; Mean ,Median and Mode

Tabulation and Generalization

Measures of dispersion

Graphical Presentation of Data-Bar, Pie, Line Graphs, Histograms

**Unit– 3 Report Preparation**

Research Reporting: Structure, Style, Contents; Style Manuals-Chicago, MLA, APA etc.

Current Trends in LIS Research

Codes and Standards

Selective and Simplified Cataloguing

**Unit– 4 Measuring Techniques for Library Data**

Statistical Librarianship Librametrics, Bibliometrics, Scietometrics , Informetrics.

Bibliometrics Analysis, and Laws of Bibliometrics

Webometrics : Definition and Use

**Digital Library: Fundamentals**

**Unit– I Digital Libraries**

Digital Libraries : and definition ;

Historical development of Digital Libraries ;

Copyright and license issues.

**Unit– 2 Digitization Process**

Software, hardware and best practices;

Scanners and scanner types;

OCR and OCR software.

**Unit– 3 ICT Application for DLs**

Open source software;

Dspace, GSDL : Features and comparative study of Dspace, Eprints and Fedora;

Open Standards and File formats, harvesting metadata.

**Unit– 4 Digital Library Architecture**

Grid architecture. Open URL integration.

Digital Preservation : Persistent identifiers : DOI and CNRI Handles;

Multilingual digital repositories and Cross-language information retrieval

**Generic Elective – GE3**

**Collection Development**

**Unit- 1Basics of Collection Development**

Definition, and Function

Collection Development Policy

Collection Development Vs Collection Management

**Unit- 2Types of Collection**

Collection: Importance of collection in library

Conventional Documents

Audio-visual Materials

Electronic Materials

**Unit- 3Document Selections and Acquisition Procedure**

Acquisition Programme: Objectives and Functions

Material selection: Principles and Selection Aids

Allocation of Library Funds: Norms and Standards

Problems in Acquisition of reading Materials

Good Office Committee

**Unit- 4CollectionEvaluations and Weeding**

Collection Evaluation: Definition, , and Utility

Techniques/Methods of collection evaluation

Weeding: and Safeguards

Electronic Publication and its collection

Role of document backup Services in Collection Development

**Unit- 5Preservation, Its Impact on Collection Development**

Preservation:, Areas, Limitations and Safeguards

Preservations: Methods and Remedies

Impact of IT on Collection Development

**MASTER OF LIBRARY AND INFORMATION SCIENCE**

**Information and Communication**

**Unit- 1 Data, Information and Knowledge**

Information: characteristics, nature, value and use of information

ual difference between Data, Information and Knowledge & Wisdom

Communication of Information: information generation

Communication channels, modes and barriers

**Unit- 2 Information Society**

Information Society: Genesis, characteristics and Implications

Social implication of information

Policies Programme Related to Information.

Information Industries.

of Freedom, Censorship, Fair Use. Creative Commons, copyright in IPR.

**Unit- 3 Information Science**

Information Science: Definition, Scope, objectives

Information Science as a Discipline & its relationship with other subjects

Information Communication: Theories & Models

**Unit-4 Economics of information**

Information as an Economic Resource

E- Commerce and E-Governance

Marketing of Information.

**Unit- 5 Information & Knowledge Management**

Information Management

Knowledge Management

Information Society Vs Knowledge Society

**Information Technology: Application (Theory)**

**Unit-1 Library Automation**

Library Automation: Definition, , Purpose and Advantages

Planning and Implementation of Library Automation.

Housekeeping Operation of Library.

Evaluation of Library Automation Software

**Unit- 2 Internet Basics Features and Tools**

Internet: Definition, application and Tools

Internet Connectivity: Dialup, Leased Line, ISDN, Digital Subscriber Line

(DSL) E-mail and Send mail, POP3.

Internet Protocol: TCP/IP, FTP, HTTP, SMTP, Z39.50, and Z39.85

OSI Network Model and TCP/IP Reference Model

Network Based Information Services.

**Unit-3 Web Page Designing &Content Management**

Hypertext and Hyperlink, Hypermedia

Basic Code of HTML5.

Web Based Content Development.

Content Development software: JOOMALA /Word Press etc

**Unit- 4 Open Access to Scholarly Communication**

Scholarly Communication: and Meaning

Open Access: Overview, Definitions. Open access publishing (full, hybrids, library as

publisher, OA policies)

People, Organizations ( PLOS, SPRAC ,Budapest Open Access Initiative), and resources

of Open Access

Open Source Software :Identification ,Types and Use,

**Unit- 5 Digital Libraries**

Genesis ,Definition, Objectives ,Scope of Digital Libraries

Study of digital Library Software: Greenstone, D-Space

File Forma t:Text, Audio, Video and Image

Software and Hardware for Digital libraries: OCR, Image editing

software,

Input Capture Devices: Scanners, Digital Movie Cameras

**Information Retrieval (Theory)**

**Unit- Information Storage and Retrieval Systems**

Objectives, Functions and component of ISAR system

ISAR System: Operation Design

Compatibility of ISAR System

Evaluation of ISAR System

IR Models

**Unit- 2 Subjects Indexing: Principle and practices**

Indexing:, Theories and Methods, Historical Development

Pre coordinate Indexing system, Citation Indexing

Post coordinates Indexing System- Keyword, Uniterm etc.

Trends in Automatic Indexing

**Unit– 3 Vocabulary Control & Indexing Language**

Indexing Language: Type and Characteristics, Common Command Languages

Vocabulary Control: Tools, and Scope

Thesaurus: Structure, Function and Construction

**Unit- 4 Searching Technique and Information Retrieval**

Man and Machine Retrieval System

Search Strategies: Boolean Operations, Proximity Search, Heuristic Search, Navigational

Search etc., Federated Search and Multimedia Databases Search

Data Mining, Data Harvesting,: Dublin Core, OAI/PMH, Semantic Web

**Unit- 5 Advanced IR Techniques**

Cross-language retrieval

Image retrieval

Multimedia retrieval

Information seeking behavior models

**Information Retrieval (Practice)**

**Unit – 1 Preparation of Class Number for Micro-Document using UDC.**

**Unit – 2 Preparation of cataloguing entries for Complex Continuing Resources and**

**Non- book Materials.**

**Unit – 3 Indexing Practice using PRECIS and KWIC.**

**Core Course – C5**

**Preservation and Conservation of Library Materials**

**TM 100 (Internal Assessment 30 + Practice 70) (Credit 4)**

**Unit 1 Library Materials: Preservation and Conservation**

Preservation and Conservation

Evolution of Writing Materials

Palm leaves and Birch Bark: Their Nature and Preservation

Manuscripts, books, Periodicals, Newspapers, Pamphlets etc

Non-Book Materials

**Unit 2 Hazards to Library Materials and Control Measures**

Environmental Factors

Biological Factors

Chemical Factors

Disaster Management

**Unit 3 Binding**

Different Types of Binding for Library Documents

Binding Materials

Binding Process

Standards for Library Binding

**Unit 4 Restoration and Reformatting**

Material Repair

Microfilming and Digitization

Preservation of digital documents

**Higher education information system: Library prospective**

**Unit– 1 Higher Education: Retrospective and prospective**

and aims of higher education ;

History and development of higher education system;

Indian higher education : legacy;

Higher education and society;

**Unit– 2 Indian higher education system policy and plans**

The constitutional provisions regarding Indian higher education system;

The evolving policy perspective in higher education;

Various committee and commission for development of higher education.

**Unit– 3 User education and theirs**

User education , definition and characteristics;

Various types of users and their information ;

of information seeking behavior;

User Study:, definition and characteristics.

**Unit– 4 Planning and management of higher education**

Structure and organization of higher education in India ;

Curriculum planning for higher education ;

Universities and its structure

**Unit– 5 Resource Sharing Programmes**

Resource Sharing Services– its Objectives, Organization and Development;

INFLIBNET and its Implications to Library Resource Sharing;

Regional and city network of libraries and their importance.

**Agricultural Information System**

**Unit- 1Agriculture Education and Agriculture Libraries**

Growth and development of Agriculture education and research in India

Role of Library in Agricultural education, research and Extension

Development of Agriculture Library in India

**Unit- 2 Information Source and Services in Agriculture**

Specialized Collection and Information Sources

Information Service and products in Agricultural Science and Technology with

Special reference to India

Agriculture Information Centers-National and International

**Unit-3Organization and Management of Resources**

General Principle of Information Management

Information Organization, Processing and Dissemination

Developing based and on Demand Specialized Services

**Unit- 4 Information Needs**

Identifying special of Agricultural faculty& research Staff

User Studies of Local Agriculture Libraries

**Unit- 5Agriculture Information System and Networks**

Current Trends in agricultural System and Networks

Resource Sharing and Networking in Agricultural Libraries in India

International Agricultural Database

Professional Associations.

**Legal Information System**

**Unit- 1LawLibrarianship**

Growth and Development of legal Institutional in India

Nature Principle and Characteristics of legal Information and Law Libraries

Type of Law Library

**Unit- 2 Information Source Collections**

Special Information Sources: Bills, Acts, Books, Serials, Law Court notice,

Law case amendments

Tribunal Report, Law Digests, Legal Judgment, Delegation Legislation

Rules and orders, Legal information Sources and Lexicons

**Unit- 3Organizationsand Management of Resources**

Information Processing: Classification, Cataloguing and Indexing

Developing special skills and Techniques to handle legal information (personnel)

Managing finance: Funds & Fund Generation

**Unit- 4 Information need and services**

Special of lawyers and legal Professionals

Study of Law Information Centers (Local)

Special Services, Planning and design

Preparation of rapports on Law Libraries (Local)

Dissemination methods and techniques

**Unit- 5Legal Information System & Networks**

Legal information System: National and International

Structure and their services

Legal Database and Digital Libraries

Resource and Networks of Legal Information

**Industrial Information System**

**Unit- 1Growth and Development of Industries& Industrialization Libraries**

Industrial Growth in India

Type of Industries: Government and Non-Government.

Role of Libraries and Information Center in Industries

Categories of Industrial Libraries

**Unit- 2 Industrial Information Resource Collections**

Tread Literature

Patents

Standards

Technical Reports Bulletins

**Unit- 3Organizations and Management of Industrial Information**

Special Classification Scheme and Indexing System

Planning and Designing Specialized information services and Products

System approach to Planning and Design and Implementation

Managing personal Skills and Finance

**Unit– 4Information and Services of Industrial Libraries**

Special Classification Schemes and Indexing System

Case Studies and field Experience of local Industries

Preparation of Report of an Industrial Library Survey (Local)

Marketing of Information

Computerized Information Service

**Unit- 5 Industrial Information System and Network**

Industrial Information Centers and Networks National and International

(SENDOC)

Structure and their services

Industrial Databases

Resource Sharing and Networking of Industrial Information Centers in India

**Second Semester**

**Research Methods and Statistical Techniques**

**Unit- 1Research Methods**

• Research: Definition, Nature, characteristics, purpose and types

Research Methods: Historical, Descriptive, Survey and Experimental

Hypothesis:, Sources and Types, Research Question

Scientific Methods: Features, Spiral of Scientific Method.

**Unit- 2 Research Design**

Meaning and definition of research design

Purpose / Goals of research design

Characteristics of a good research design

Different types of research design

Advantage of designing research design.

**Unit -3 Research technique and tools**

Meaning, and Purpose of data collection

Questionnaire, Interview and observation schedule

Sampling technique and sampling error

Scale and check list

**Unit-4 Data analysis and interpretation**

Statistical Methods: , Definition and Basic steps and factors involved;

Measures central tendency: Mean, Median and Mode;

Measures of Dispersion: Range, Mean Deviation and Standard Deviation;

Measure of Variability and Correlation, t-test, z-test, ANOVA.

**Unit -5 Research Reporting**

Meaning definition and of research design**;**

Structure, style , contents;

Guidelines for research reporting;

Style manuals – Chicago – MLA-APA etc;

E-citation and methods of research evaluation.

**Management of Library and Information Centers/Institutions**

**Unit– 1 Advanced Management Perspectives**

and schools of Management thoughts

Management Information Science

Functions and Principles of Scientific Management

Total Quality Management

Change Management: and

Performance Measurement

**Unit– 2 Human Resource Management**

Human Resource Management: Selection, Recruitment, Training, Development,

Performance Appraisal

Organizational Behavior

Managerial Quality and Leadership

Human Resource Planning and Development for Digital Environment

**Unit– 3 Financial Management**

Budgetary Control and Techniques

Costing Techniques

Cost Analysis

Resource Mobilization and Outsourcing

**Unit– 4 System Analysis and Design**

Library Planning: Basic , Types and Procedures,

System Approach

Work Flow and Organizational Routine

Monitoring and Control Techniques,

Performance Management

**Unit– 5 Collection management in electronic environment**

Electronic resources

E-consortia

**Information Analysis, Repackaging and Consolidation**

**Unit- 1Repackaging and Consolidation**

Packaging and Re-Packaging:, Purpose and Criteria

Content Analysis

Information Consolidation Products: Types, Design and Development

Information Intermediaries

**Unit- 2Information Analysis and Consolidation Centre’s**

Genesis of Information Analysis and Consolidation(IAC) centre’s

Planning and Management of IAC centre’s

Data centre and Referral Centre

IAC Centre’s in India

**Unit- 3 Tools for IAR**

Indexes, Abstracts, Reviews, Digests, Markets, Surveys

Different Types of Abstracts

Guidelines in Preparing Abstracts

Canons of Abstracting

**Unit- 4 Information Products**

Nature and Type

Design and Development

Information Newsletter, House Bulletin, In-House communications,

Trade Reports, Technical Digest, and Trend Reports, state-of- the –art- reports

**Unit- 5 Trends in Information Analysis, Repackaging and Consolidation**

Electronic Content Creation

Online Information System and Information Networks

International standards for Database Design and Development

**Information Technology: Application (Practice)**

**Unit-1 Library Automation Software: CDS/ISIS and/or WINSIS**

Software Installation/Uninstallation

Creation of Worksheet, Data entry Fields, FST, FDT

Searching Through WINSIS or CDS/ISIS

Display of Search Results

**Unit-2 Integrated Library Management Software**

Integrated Library Software packages: SOUL/koha

Modules such as Acquisitions, Cataloguing, Circulation, Serial Control,

Administration and OPAC

Installation of ILMS Software

**Unit-3 Digital Library Software**

Overview of Digital Library Software: Greenstone, e-prints

Creation of Digital Repository through D-Space and/or Greenstone

**Unit– 4 Web designing**

Creation of web page using HTML

Creation of blogs

**Unit5: Content Management Software**

Function and use of any Content Management Software: Joomla, Drupal

**Media and Information Literacy**

**Unit-1 Media and Information Literacy**

Media and Information literacy (MIL) definition, and purpose,

Role of MIL in the Society

Theories and models of MIL

MIL policies and strategies

**Unit-2 Information Literacy**

Information Literacy Standards: Foundations & Implications

Information Literacy Guideline :UNESCO, IFLA and ALA

Data Literacy: Definition, Importance and scope

Digital Literacy: emerging wed service

**Unit-3 Ethics and Laws**

Media and information ethics: cyber laws and ethics

Social Media Platforms and Tools

Media Ethics

**Technical Writing and Content Development**

**Unit- 1 Structure and Functions of Technical Communication**

Structure : Definition, Purpose, Characteristics and Functions

Collection, Organization and Presentation of Data including Illustration

Characteristic Features of Technical Writing

Linguistic as medium of Expression of Thought

**Unit- 2 Content Analysis**

and Scope

Technical Quantitative and Qualitative

Content Analysis-Applications (generation of Information Services and products)

**Unit- 3 Content Developments**

Content Development: Context setting, Norms and Guidelines

Content Development software: JOOMALA, DRUPAL etc.

Abstract Development, Citation styles

**Digital Library: Fundamentals**

**Unit- 1 Digital Libraries**

Digital Libraries: and Definition

Historical development of digital libraries

Digital Libraries Planning and implementation

Digital Library Services

**Unit- 2 Digital Libraries-Hardware**

Software, Hardware and best practices

Scanners and scanner types;

OCR and OCR software

Major component of Digital Library

**Unit- 3 Digital Libraries-Software**

Open source software;

Dspace, GSDL: Features and comparative study of Dspace, Eprints and Fedora

Open standards and File formats, harvesting metadata

Open Access and Digital Library

**Unit- 4 Digital preservation**

Digital Preservation: scanning and OCR

Persistent identifiers: DOI and CNRI Handles;

Multilingual digital repositories

**Unit- 5Preservation, Its Impact on Collection Development**

Preservation:, Areas, Limitations and Safeguards

Preservations: Methods and Remedies

Impact of IT on Collection Development

**Information Sources, Systems and Programmes**

**Unit– 1 Information Sources**

Physical medium of information

Print Media, Multimedia (Hypermedia) and Hypertext

Non– Print Media: Microform, Electronic and Optical Media

Evaluation of information sources- Print and electronic

**Unit– 2 Information Sources for Users**

Content Analysis and its Correlation to Clientele

Customized Organization of Information Sources

Citation Analysis of Information Sources and their Use

Aid to information

**Unit– 3 Information Sources, Systems and Programmes**

Humanities

Social Science

Science and Technology

Non Disciplinary Studies

**Unit– 4 Information Experts as Resource Persons**

Library and Information Personnel

Science and Technology Information Intermediaries

Database Designers and Managers

Media Personnel as Sources of Information

**Unit– 5 Users and their Needs**

Information of Users

Categories and Nature of different Information users

Information Seeking Pattern

User Studies/User Education:, Types and Methods

Information Literacy Skills: An Introduction

**Pre Ph D Course Work in Library and Information Science**

**Research Methodology and Computer Applications**

**4 Credits (100 Marks)**

Characteristics of Research

Types of Research

Research Design

Review of Literature

Hypothesis

Data Collection

Data Analysis Tools

Methods of Research

Research Reporting

Computer Basics

Word Processor

Library Software

Study of Electronic Resources

Statistical Techniques

**Contemporary Practices in Library and Information Science**

**4 Credits (100 Marks)**

Library Classification

Cataloguing

Library Networking

Digital Information Resources

Information Marketing : Products and Services

Total Quality Management

Use of ICT

Digital Library Services

Relational Database Management System

User Studies

User Education

Library Science Education

**Information and Knowledge Society**

**4 Credits (100 Marks)**

Information Society V/s Knowledge Society

Data, Information and Knowledge

Theories and Models of Communication

Information Studies

Knowledge Management

Economics of Information

E-Commerce and E-Governance

Intellectual Property Rights

Laws related to Information

Information security

Social Media and in Knowledge Society

Digital Divide

**Information Literacy Applications**

**4 Credits (100 Marks)**

Fundamentals of Information Literacy

Information Literacy Programs

Methodology of Information Literacy

Information Literacy for users

Trends in Information Literacy

Information Seeking Behavior

Models of Information Literacy

Information Literacy Standards

Information Literacy Guidelines

Media Literacy

Digital Literacy

**Term Paper**

Library Automation

Digital Libraries

Human Resource Development

Library Consortium

Web Based Library Services

Information Analysis, Consolidation and Repackaging

Information Marketing

Information Sources

Information Services

Collection Development

Bibliometrics

Preservation and Conservation Library Materials

Library Networking

Resources Sharing

Institutional Repository

Open source Library Software

Metadata

Common Gateway Interface

Information Retrieval in Libraries

Digitization etc…

**Indira Gandhi National Open University**

**Master’s Degree Programme in Library and Information Science (MLIS) and BLIS**

**MLI-101: INFORMATION, COMMUNICATION AND SOCIETY**

**Block-1: Information: Nature, Property and Scope**

Unit 1: Data, Information and Knowledge: Intellectual Assets Unit 2: Data: Definition, Types, Nature, Properties and Scope

Unit 3: Information: Definition, Types, Nature, Properties and Scope Unit 4 : Knowledge: Definition, Types, Nature, Properties and Scope **Block-2: Information Generation and Communication**

Unit 5: Information Communication Process, Media and Diffusion Unit 6: Generation of Information: Modes and Forms

Unit 7: Information Theory: Measure and Contents Evaluation Unit 8: Digital Information

**Block-3: Information and Society**

Unit 9: Social Implications of Information

Unit 10: Information as an Economic Resource

Unit 11: Information Policies: National and International Unit 12: Information Infrastructure - National and Global Unit 13: Information Society

**Block-4: Knowledge and Society**

Unit 14: Knowledge Society

Unit 15: Knowledge Management: and Tools Unit 16: Knowledge Profession

**MLI-102: MANAGEMENT OF LIBRARY AND INFORMATION CENTRES**

**Block-1: Management Perspectives**

Unit 1: Schools of Management Thought Unit 2: Management Functions

Unit 3: Total Quality Management Unit 4: Change Management 13

**Block-2: System Analysis and Control**

Unit 5 : Systems Approach

Unit 6: Work Flow and Organisation Routine Unit 7: Monitoring and Control Techniques

Unit 8 : Performance Measurement and Evaluation Techniques

**Block-3: Human Resource Management**

Unit 9 : Organisational Behaviour

Unit 10 : Managerial Quality and Leadership

Unit 11: Human Resource Planning and Development

**Block-4: Financial Management**

Unit 12: Budgeting and Types

Unit 13: Budgetary Control System Unit 14: Costing Techniques

Unit 15: Cost Analysis

**Block-5: Marketing of Information Products and Services**

Unit 16: Information as a Marketable Comodity Unit 17: Marketing: Approach and Techniques Unit 18: E-Marketing

**MLII-101: INFORMATION SOURCES, SYSTEMS AND SERVICES**

**Block-1: Information Institutions**

Unit 1: Information Institutions: Evolution, Growth Functions and Types Unit 2: Information Centres: Types and their Organisation

Unit 3: Data Centres and Referral Centres

Unit 4: Information Analysis and Consolidation Centres

**Block-2: Information Sources, Systems and Programmes**

Unit 5: Information Sources: Categorisation Unit 6: Print and Non-Print Sources

Unit 7: National Information Systems and Programmes 14

Unit 8: Global Information Systems and Programmes

Unit 9: National and International Information Organisations

**Block-3: Information Products and Services**

Unit 10: Information Products - Part I Unit 11: Information Products - Part II Unit 12: Information Services - Part I Unit 13: Information Services - Part 11

**Block-4: Information Intermediaries as Sources of Information**

Unit 14: Library and Information Professionals Unit 15: Information Intermediaries

Unit 16: Database Designers and Managers Unit 17: Database Intermediaries

Unit 18: Media Persons Unit 19: Intelligent Agents

**MLII-102: INFORMATION PROCESSING AND RETRIEVAL**

**Block-1: Organization of Information**

Unit 1: Intellectual Organization of Information

Unit 2: Indexing Languages Part-I - and Types, Subject Headings Lists and Thesauri Unit 3: Indexing Languages Part-II - Classification Schemes

Unit 4: Indexing Systems and Techniques Unit 5: Evaluation of Indexing Systems **Block-2: Bibliographic Description**

Unit 6: Principles and Evolution of Bibliographic Description Unit 7: Rules for Bibliographic Description

Unit 8: Satandards for Bibliographic Record Format

Unit 9: Metadata : MARC 21-856 Field, Dublin Core, TEI

**Block-3: Content Development**

Unit 10: Norms and Guidelines of Content Development Unit 11: Introduction to HTML and XML 15

Unit 12 Web-based Content Development

Unit 13: Multilingual Content Development (Using Unicode)

**Block-4: Information Storage and Retrieval Systems**

Unit 14: ISAR Systems: Objectives and Types, Operations and Design Unit 15: Compatibility of ISAR Systems

Unit 16: Intelligent IR Systems

**Block-5: Information Retrieval**

Unit 17: Information Retrieval - Processes and Techniques Unit 18: Information Retrieval - Models and their Applications Unit 19: Search Strategy - Processes and Techniques

**MLII-103: FUNDAMENTALS OF INFORMATION COMMUNICATION TECHNOLOGIES**

**Block-l: Computer Technology** Unit 1: Architecture and Technology Unit 2: Software

Unit 3: Programming

**Block-2: Communication Technology**

Unit 4: Fundamentals of Communication Technology Unit 5: Networks and Networking

Unit 6: Data Networks

Unit 7: Convergence Technology and Applications **Block-3: Media and Publishing Technology** Unit 8: Print and Non-Print Media

Unit 9: Publishing and Printing Technology

Unit 10: E-Publishing and Networking Publishing Unit 11: Reprography and Micrography

**Block-4: Resource Sharing Networks** Unit 12: Library and Information Networks Unit 13: Bibliographic Utility Networks

Unit 14: Library and Information Networks in India 16

**MLII-104: INFORMATION AND COMMUNICATION TIECHNOLOGIES - APPLICATIONS**

**Block-1: Database Design and Management**

Unit 1: Database: and Components

Unit 2: Database Structures, File Organisation and Physical Database Design Unit 3: Database Management Systems

Unit 4: Database Searching **Block-2: Library Automation** Unit 5: Housekeeping Operations

Unit 6 Software Packages - Features

Unit 7: Digitization:, Methods and Equipment

**Block-3: Library and Information Services**

Unit 8: Alerting Services

Unit 9: Bibliographic Full Text Services Unit 10: Document Delivery Services Unit 11: Reference Services

**Block-4: Internet Resources and Services**

Unit 12: Basics of Internet

Unit 13: Use of Search Engines Unit 14: Internet Services

Unit 15: Internet Information Resources Unit 16: Evaluation of Internet Resources

**MLII-105: INTERNSHIP**

Kindly refer detailed standard operating procedures of internship available on the IGNOU website. 17

**ELECTIVE COURSES**

**MLIE-101: PRESERVATION AND CONSERVATION OF LIBRARY MATERIALS**

**Block-1: Library Materials: Preservation and Conservation**

Unit 1: Preservation and Conservation Unit 2: Historical Development of Writing Materials

Unit 3: Palm Leaves ‗Birch‘ Bark: Their Nature and Preservation

Unit 4 : Manuscripts, Books, Periodicals, Newspapers, Pamphlets, etc. Unit 5: Non-book Materials

**Block-2 : Hazards to Library Materials and Control Measures**

Unit 6: Environmental Factors Unit 7: Biological Factors Unit 8: Chemical Factors Unit 9: Disaster Management **Block-3: Binding**

Unit 10: Types of Binding Unit 11: Binding Materials Unit 12: Binding Process

Unit 13: Standards for Binding

**Block-4: Restoration and Reformatting**

Unit 14: Material Repair

Unit 15: Microfilming and Digitisation

**MLIE-102: RESEARCH METHODOLOGY**

**Block-1: Fundamentals of Research** Unit 1: Research: Meaning, , Unit 2: Historical Research

Unit 3: Survey Research

Unit 4: Experimental Research

Unit 5 Fundamental, Applied and Action Research

**Block-2: Tools for Research** Unit 6: Measurement of Variables 18

Unit 7: Data Presentation

Unit 8: Statistical Techniques Unit 9: Statistical Packages **Block-3: Research Methods** Unit 10: Observation Method Unit 11: Questionnaire Method Unit 12: Interview Method

Unit 13: Experimental Method Unit 14: Case Study

**Block-4: Research Process** Unit 15: Research Design Unit 16: Research Plan

Unit 17: Statistical Inference Unit 18: Presentation of Results

**MLIE-103: ACADEMIC LIBRARY SYSTEM**

**Block-1: Development of Academic Libraries**

Unit 1: Academic Libraries: Objectives and Functions

Unit 2: Role of UGC and other Bodies in Promoting Libraries in Universities, Colleges and other Institutions of Higher Learning

Unit 3: Library Governance

Unit 4: Academic Library Services

Unit 5: Financial Management of Academic Libraries

**Block-2: Collection Development**

Unit 6: Collection. Development Policy/Weeding out Policy Unit 7: Problems in Collection Organisation

Unit 8: Collection Development Programmes

**Block-3: Staffing Pattern and Staff Development for Academic Libraries**

Unit 9: Norms and Patterns of Staffing

Unit 10: Continuing Education Programmes (CEP) Unit 11: Personnel Management 19

**Block-4: Resource Sharing Programmes**

Unit 12: Resource Sharing: and Objectives

Unit 13: INFLIBNET : Information and Library Network Unit 14: Library Networks and Consortia

**MLIE-104: TECHNICAL WRITING**

**Block-1: Communication Process**

Unit 1: Overview of Communication Process

Unit 2: Characteristic Features of Technical Writing Unit 3: Target Groups in Written Communication Unit 4: Reader-Writer Relationship

**Block-2: Linguistics**

Unit 5: Language as Medium for Communication of Thought Unit 6: Functional English Style: Semantics, Syntax, and Diction Unit 7: Readability and Text

Unit 8: Aberrations in Technical Writing

**Block-3: Structure and Functions of Technical Communication**

Unit 9: Structure, Definition, Purpose, Characteristics and Functions

Unit 10: Collection, Organisation and Presentation of Data including Illustrations

Unit 11: Case Studies: Preparation of Short Communication, Review Articles, Technical Reports, Monographs, Dissertations and House Bulletins

**Block-4: Technical Editing and Editorial Tools**

Unit 12: The Editor

Unit 13: Editorial Process Unit 14: Editorial Tools

**MLIE-105: INFORMETRICS AND SCIENTOMETRICS**

**Block-1: Foundation of Informetrics and Scientometrics**

Unit 1: Information and Measurement Unit 2: Measure of Information

Unit 3: Informetrics: Definition, Scope and Evolution Unit 4: Sociology of Science and Scientometrics

Unit 5: Organisations Engaged in Scientometrics and Informetrics Studies 20

**Block-2: Informetrics: Elements and Applications**

Unit 6: Law of Scattering and its Applications Unit 7: Rank and Size Frequency Models Unit 8: Informetrics Phenomena

Unit 9: Analysis of Library Related Data Unit 10: User Studies

**Block-3: Scientometrics: Elements and Applications**

Unit 11: Laws of Scientific Productivity

Unit 12: Growth and Obsolescene of Literature Unit 13: Science Indicators

Unit 14: Mapping of Science

**Block 4: Techniques and Modeling in Informetrics and Scientometrics**

Unit 15 : Elements of Statistics

Unit 16 : Probability Distributions and their Applications Unit 17 : Regression Analysis

Unit 18 : Cluster Analysis and Factor Analysis

**MLIE-106: PUBLIC LIBRARY SYSTEM AND SERVICES**

**Block-1: Public Library: Basics** Unit 1: Public Library: Origin and Growth Unit 2: Public Library and Society

Unit 3: Agencies in the Promotion and Development of Public Library System Unit 4: National Library Policy and Library Legislation

**Block-2: Public Library System: Resource Development**

Unit 5: Development Plans and Resource Mobilisation Unit 6: Financial Resources

Unit 7: Physical and Documentary Resources Unit 8.: Human Resources

**Block-3: Management of Public Library System** Unit 9: Organisational Structure of Public Library System Unit 10: Planning and Administration of Public Libraries 21

Unit 11: Public Library Norms, Standards and Guidelines Unit 12: Governance of Public Libraries

Unit 13: Performance Evaluation **Block-4: Public Library Services** Unit 14: Types of Library Services

Unit 15: Application of Information Technology in Public Library Services Unit 16: Resource Sharing Networking

Unit 17: Public Library Scenario in India, UK, USA and Canada

**Courses with Seminar Component Core Courses**

INFORMATION, COMMUNICATION AND SOCIETY

MANAGEMENT OF LIBRARYAND INFORMATION CENTRES

**Electives**

PRESERVATION AND CONSERVATION OF LIBRARY MATERIALS MLIE-102: RESEARCH METHODOLOGY

ACADEMIC LIBRARY SYSTEM MLIE-104: TECHNICAL WRITING

INFORMETRICS AND SCIENTOMETRICS MLIE-106 PUBLIC LIBRARY SYSTEMAND SERVICES

**MODEL TOPICS FOR SEMINAR**

**MLI-101: Information, Communication and Society**

1. Post-industrial Society.

2. CODATA Task Group (on Accessibility and Dissemination of Data).

3. Free Flow of Information (Barriers to Information).

4. Information Communication Chain.

5. Information Generation Process.

6. Shannon Weaver Model.

7. Holistic and Spectrum Approaches to Knowledge.

8. Growth Patterns of Disciplines.

9. Role of Information Scientists in Knowledge Utilisation.

10. Components of National Information Policy.

11. Information Economics.

12. Information Society.

13. National Information Infrastructure.

14. Digital Information.

15. Digitisation of Information.

16. Knowledge Professionals.

17. Knowledge Society.

18. Knowledge Management.

**MLI-102: Management of Library and Information Centres**

1. Management Framework for Libraries.

2. Role of Management Information System (MIS) in Planning and Controlling.

3. Leadership Styles.

4. Library and Information Systems.

5. Time and Motion Studies.

6. Operation Research in Libraries.

7. Management by Objectives (MBO).

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8. Human Resource Management in Libraries.

9. Human Resource Planning for Libraries and Information Centres.

10. Total Quality Management (TQM).

11. Methods of Financial Estimation in Libraries.

12. Performance Management for Libraries and Information Centres.

13. Change Management .

14. Organisation Behaviour in Libraries and Information Centre.

15. Implication of e-marketing.

16. Budgetary Control for not-for-profit Organisations.

17. Cost Effectiveness Analysis vs. Cost Benefit Analysis.

18. Information as a Marketable Commodity.

19. Market Segmentation.

**Elective Courses**

**MLIE-101: Preservation and Conservation of Library Materials**

1. Inherent Characteristics of Library Materials and their Preservation.

2. History of Writing Materials in India.

3. Preservation and Conservation of Palm Leaf Manuscripts.

4. Preservation and Conservation of Birch Bark Manuscripts.

5. Preservation and Conservation of Non-book Materials.

6. Preservation of Optical Media.

7. Environmental Factors as Detractors to Library Materials.

8. Control Measures for Protection of Library Materials from Biological Pests.

9. Preventive Conservation.

10. Binding for Different Type of Library Materials.

11. Binding Materials.

12. Stages of Binding Process.

13. International Standards for Binding.

14. Indian Standards for Binding.

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15. Book Pests.

16. Disaster Management for Libraries.

17. Restoration Procedures for Library Materials.

18. Organisation for Knowledge Preservation.

**MLIE-102: Research Methodology**

1. The Quest for Solutions to Practical and Theoretical Problems Result in Research Activity.

2. Research in Library and Information Science leads to the Design and Better Management Skills on the Part of an Information Professional.

3. Library Science Research and Development of Operational Skills.

4. Basic Research vs. Applied Research: Objectives and Methods.

5. Research Techniques are Means Rather than Ends in Themselves.

6. Identification of a Research Problem.

7. Survey Analysis and Content Analysis as Methods of Research.

8. Presentation of Results of Research.

9. Time Series and its Components — Contribution to Research Techniques.

10. Steps involved in the Analysis of Data for the Preparation of a Research Report.

11. Drafting of Research Report.

12. Statistical Methods in LIS.

13. Designing a Questionnaire (Real example)

14. Preparing a Proposal (Real example)

15. Preparing a Research Report (Real example)

**MLIE-103: Academic Library System**

1. Academic Libraries Provide Access to Scholarship.

2. Academic Libraries form the Keystone in the Arch of Higher Education.

3. Role of Academics in Promoting Library Use.

4. Should we Go for Fee or Free Based Library Services in an Academic Library System?

5. Library Governance.

6. Library Collections are Described as ―Instructors of Instructors‖.

7. The Success of an Academic Library Depends Much on its Personnel.

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8. Teleconferencing as a Continuing Delivery System.

9. Resource Sharing Avoids Duplication of Money, Manpower and Material.

10. Library Networks Facilitate Sharing and Optimum Use of National and International Information Resources.

11. Resources and Services of INFLIBNET.

12. Role of UGC in Modernising the Library Services.

13. UGC Service Conditions and Pay Scales Enhance the Status of the Professionals.

14. Information Based Learning and Teaching.

15. E-consortia Approach to Academic Libraries.

**MLIE-104: Technical Writing**

1. Reader-writer Relationship.

2. Aberrations in Technical Writing.

3. Tools for Technical Writing.

4. Preparation of Technical Reports.

**MLIE-105: Informetrics and Scientometrics**

1. The Journey from Bibliometrics to Informetrics is Characterised by Development in Methods and Techniques Rather Than Objectives and Purposes.

2. Mathematical Models and their Application in Scientometrics and Informetrics.

3. Bibliometrics and Informetrics Laws and their Implications in Library and Information Science.

4. The Development of Science Citation Index is a Landmark for Scientometrics and Informetrics Studies.

5. Measuring Scientific Productivity - Problems and Prospects.

6. Growth and Obsolescence Study of Literature - A Means for Library and Information Centre Management.

7. Science and Technology Indicators – A Tool for Policy and Decision Makers.

8. Understanding Science in Developing Countries - A Methodological Approach Through Scientometrics and Informetrics.

9. Approaches to Modeling in Scientometrics and Informetrics.

**MLIE-106: Public Library System and Services**

1. Public Libraries Serve as an Instrument of Social Change.

2. Development of Public Libraries an Appropriate Policy at State and National Level.

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3. Physical, Financial and Human Resources Constitute an Effective Public Library System.

4. Planning Helps to Systematically Move Towards Achievement of Goals.

5. The Success of Management of Public Library System Depends Much on its Governance.

6. Performance Evaluation is an Important Tool to Measure the Strength and Weakness of Public Library System.

7. Accessibility Plays an Important Role in Providing Library Services.

8. Resource Sharing and Networking among Public Libraries Improve Quality of Library and Information Services.

**Dr Zakir Husain Library Academic Bulletin(Jamia Millia Islamia)**

Foundation of Library and Information Science

Unit-1: Library as a Social Institution

- Social and historical foundation of Library

- Different types of Libraries and their distinguishing features and functions

- Five Laws of Library Science & their implications in Library & Information Activities

Unit-2 : Professional Associations and their functions

- Professional Associations: ILA, IASLIC, ALA, ASLIB

- National and International Organisations: RRRLF, UNESCO, IFLA

- Professional skills, Ethics and Competencies

Unit-3: Library Development: Historical perspectives

- Development of Libraries in India since Independence

- National Knowledge Commission (NKC) with regard to Libraries

- Role of UGC& INFLIBNET in the development of College & University Libraries in India

Unit-4: Library Legislation

- Library legislation- and essential features

- Library legislation in India

- Delivery of Books (Public Libraries) Act, 1954 & Copyright Act of India, 1957 (with amendments)

- Intellectual Property Rights: Conventions, Laws, etc

- Information Technology Act, 2000 (with amendments)

Library Classification (Theory)

Unit-1: Elements of Library Classification

- Library Classification:, Purpose & Functions

- Modes of formation of subjects

- Universe of subjects as mapped in different schemes of classification

- Library Classification Schemes: DDC&CC

Unit-2: Theory of Classification

- Normative Principles of Classification

- Canons and their applications in classification schemes

- Mnemonics: Definition and their types

Unit-3: Approaches to Library Classification

- Facet Sequence: and Principles

- Postulation approach & systems approach in Practical Classification

- Phase relation & devices in Library Classification

- Species of Classification Schemes

Unit-4: Notation & Construction of Class Number

- Notation: purpose, types and qualities

- Call Number: Class Number, Book Number and Collection Number

- Construction of Class Number

Library Cataloguing (Theory)

Unit-1: Fundamental s & Historical development

- Library Catalogue: Definition, Purpose & Functions

- Library Cataloguing Codes: History & Development

- Physical forms of Library Catalogue

- Types of Catalogue: Dictionary and Classified

Unit-2: Types of Catalogue Entries (AACR-II & CCC)

- Kinds of Entries

- Cataloguing Rules according to AACR-II and CCC for Personal Authors, Joint authors, Corporate Authors and Pseudonyms & Non-print resources

- Bibliographic standards for record format: ISBD, MARC-21, CCF, RDA, Bibframe, FRBR

- Bibliographic standards for Information interchange: ISO 2709, Z39.50, Z39.7

Unit-3: Subject Cataloguing:, Principles

- Subject Headings Lists: LCSH, SLSH

- Indexing: Pre-coordinate and Post-coordinate

- Vocabulary Control & Thesaurus

Unit-4: Centralized and Cooperative Cataloguing

- Union Catalogue:, Rules for Compilation

- NUCSSI, IndCAT, WorldCat

Information, Communication and Society

Unit-1: Information: Nature, Property and Scope

- Data: Definition, Types, Nature, Properties and Scope

- Information: Definition, Types, Nature, Properties and Scope

- Knowledge: Definition, Generation and Utilization

Unit-2: Information Generation and Communication

- Generation of Information: Modes and Forms

- Communication Process and Media

Unit-3: Information and Societ*y*

- Social Implications of Information

- Using Information Effectively, Controlling Fake News

- Information Policies: National Library and Information Policy of India

- Role of Information in Planning, Management and R & D

Unit-4: Study of Information Systems and Networks

- National Information Systems and Networks: NISCAIR, DESIDOC, SENDOC, ENVIS, INFLIBNET, NICNET, ERNET, etc.

- International Information Systems and Networks: AGRIS, INIS, MEDLARS, INSPEC, BIOSIS, ERIC, Patent Information System (PIS)

- Resource Sharing Networks; OCLC and DELNET

Information and Communication Technology (ICT) in Library & Information Science (Theory)

Unit-1: Introduction to Computers

- Computer: Generation, types, Storage, Input & Output devices

- Introduction to System Software & Application Software

- Operating System: Windows/Linux

- Database Management System (DBMS)

Unit-2: Library Automation

- and purpose of Library Automation

- Library Software packages (SOUL 2.0/KOHA): Overview & Housekeeping operations

- Bar coding: and Applications

Unit-3: Computer Networks and Communications

- Telecommunication:, & Purpose

- Network Devices (Repeaters, Hub, Bridges, Switch, Router, MODEM)

- Network Topologies: Bus, Star, Mesh, Ring; Network Types: LAN, MAN, WAN

- Network protocols: TCP/IP, SHTTP, SMTP, URI, URL , TP, HTTP

- Modes of Connectivity: Dial up, ISDN, Leased Lines, Blue tooth, Mobile, Wi-fi etc.

Unit-4: Introduction to Internet

- Basics of Internet

- Search Engines & Meta search Engines

- Online Searching (Simple & Advanced Searching Techniques)

- Retrieving Information from e-resources & online databases

Management of Library and Information Centres

Unit-1: Principles of Library Management

- General & Scientific Management: Functions and Principles

- Total Quality Management (TQM): , Principles and Techniques

- Project Management: SWOT, PEST, PERT/CPM

- Marketing of Library Services & Products

Unit-2: Library Human Resource Management

- Library Organizational Structure

- Library Authority, Library Committee

- Job Description and Analysis; Job evaluation, Performance Appraisal

- Different Sections of Library & Information Center and their functions

Unit-3: Library Finance and Budgeting

- Sources of Finance

Library Classification (Practice)

Unit-1: Classification of Documents using DDC (19th Edition)

- Classification of documents using Table-1 to Table-4

- Classification of documents using Relative Index

Unit-2: Classification of Documents using DDC (19th Edition)

- Classification of documents using Table-5 to Table-7

Unit-3: Classification of Documents using CC (6th Edition)

- Classification of documents with basic subjects

- Classification of documents with compound subject& Use of Common Isolates

Unit-4: Classification of Documents using CC (6th Edition)

- Use of Common Isolates, Phase relations & Devices

- Classification of documents with Complex subjects

- Budgeting Techniques and Methods-Item Budget, PPBS, Zero Based Budgeting, Cost Effective and Cost Benefit Analysis

- Preparation of Budget for different types of Libraries

Unit-4: Collection Development & Preservation

- Types of Reports, Compilation of Annual Report

- Collection Development Policies, Selection Tools, Collection Evaluation

- Stock Verification: Policies and Procedures

- Preservation & Conservation of Library materials

Library Cataloguing (Practice)

Unit-1:Anglo-American Cataloguing Rules-II (AACR-II)

- Works of Single & Shared authorship

- Works of mixed responsibility

- Editorial Publications

- Series Publications

- Multi-Volumes

Unit-2: Anglo-American Cataloguing Rules-II (AACR-II)

- Composite Books

- Works of Corporate Authorship: Government, Institution and Conference

- Works of Conflict Authorship

- Periodical Publications

Unit-3:Classified Catalogue Code (CCC)

- Works of Single & Shared authorship

- Works of mixed responsibility

- Editorial Publications

- Series Publications

- Multi-Volumes

Unit-4:Classified Catalogue Code (CCC)

- Composite Books

- Works of Corporate Authorship: Government, Institution and Conference

- Works of Conflict Authorship

- Periodical Publications

Information and Communication Technology (ICT) in Library & Information Science (Practice)

Unit-1: Operating Systems and Application Software

- Setting of Desktop

- Creating presentations with the help of PowerPoint

- Creating Spreadsheets

- Editing & Formatting Word Documents

Unit-2: Database creation using SOUL 2.0/KOHA

- Creation of database: Import & Export

- Printing of Records of database

- Printing of Bar-code

Unit-3: Library Software (SOUL 2.0/KOHA)

- Installation, Configuration & Application

- Hand on practice on different modules

- Searching OPAC & Printing of Catalogue/Database

- Creation of Barcode

Unit-4: Online/Offline Searching

- Searching of E-resources/databases

- Searching through Meta Search Engines

- Federated Search Engines

- Library OPAC

Information Sources and Services

Unit-1: Information Sources: An overview

- Meaning, Definition, Importance, Nature and Characteristics

- Types of Information Sources and Services

- Criteria for Evaluation of Reference Sources

Unit-2: Types of Information Sources

- **Primary Sources**: Periodicals, Conference proceedings, Patents, Standards, Theses, Research reports, Trend Reports, Trade Literature, etc.

- **Secondary Sources**: Dictionaries, Encyclopedias, Biographical, Geographical, Indexes & Abstracts, Current Events Sources, Almanacs, Year Book, Handbooks, Statistical Sources, Bibliography, etc.

- **Tertiary Sources**: Bibliography of Bibliographies, Union Catalogues, Directory, etc

Unit-3: Reference and Information Services

- Users and their Information s

- Nature & Kinds of Reference and Information Services

- Web based Information services

- Role of Web 2.0 and Social Media in information dissemination

Unit-4: Types of Information Services

- Documentation Services: Abstracting and Indexing Services

- Alerting Services: CAS, SDI

- Document Delivery & Electronic Document Delivery Service

MLISc

ELECTRONIC INFORMATION SOURCES AND SERVICES

Unit-1: Electronic Resources

- Characteristics & Features, Formats, Advantages, etc.

- Forms of e-Resources: e-journals, e-books, e-zines, e-prints, e-content pages, web pages, e-mails, Listservs, blogs, wikis, CD-ROM databases, Full text databases, Bibliographic databases, Multimedia, Statistical and Financial Databases ETDs, e- images, e-music, etc.

- Open Access e-Resources: Journals, Books, Open Course Ware, Repositories

Unit-2: Selection &Licensing of E-Resources

- Principals and Methods of Selection of E Resources

- Principles for Licensing e-journals

- Major points in License Agreements, Clauses for License Agreement

- Licensing criteria : Content volume, Duration of Access, Size of User Population,

- Computing devices used for access

- Access Models: Perpetual access rights, Limited period access rights, etc.

- Aggregators, Distributors, Publishers & Subscription Agencies

- Access, Authentication& Remote Access

Unit-3: Pricing and Supply Models of Electronic Resources

- Basic approaches to Journal pricing: Cost plus and Value based

- Pricing Models (subscribed) and Open Access Models

- Pricing & Negotiation of Databases and E-books

- Supply Models: Single user, Multi user, Single Site & Multiple site & Country wide

- Institutional & Consortia Pricing Models

- Digital Commerce Models

Unit-4: E- Resource Management

- Digital Right Management

- Federated Searching and Discovery Services

- Electronic Resources Management Skills

- Evaluation & Monitoring

- Usage Pattern & Systematic Downloads

PLANNING AND MANAGEMENT OF LIBRARY & INFORMATION SYSTEMS

Unit-1: Policy & Planning of Libraries in India

- Present status of Libraries in India.

- Role of UGC in the growth & development of Academic Libraries in India

- Committees & Commissions: Kothari Commission, Radhakrishnan Commission, Mudaliar Commission, etc.

- Role of Libraries in Formal and Non-Formal Education System

Unit-2: Library Organization & Administration

- Library authority and its decentralization

- Manpower Development: Qualifications, recruitment, Job description, job analysis, staff manual.

- Collection Development: Print and Non-Print including Electronic documents.

- Library Building, furniture & equipment: Green Library Building, Information Commons, Makers Space, Security and Safety.

Unit 3: Types of Library Systems

- Academic Library System

- Public Library System

- Special Library System

- Basics of other Library Systems such as Health, Engineering, Agriculture, etc

Unit-4: Trends in Library Management Systems

- Management Information System (MIS)

- Change Management

- Disaster Management, Crisis Management

- Knowledge Management: Principles, Tools, Components & Architecture

ADVANCED KNOWLEDGE ORGANISATION: CLASSIFICATION (PRACTICE)

Unit-1: Classification of Documents according to UDC (3rd Abridged Ed.)

- Classification of Documents representing simple subjects.

- Classification of Documents using Auxiliary tables.

Unit-2: Classification of Documents according to UDC (3rd Abridged Ed.)

- Classification of documents representing compound subject.

- Classification of documents representing complex subject.

ADVANCED KNOWLEDGE ORGANIZATION: CATALOGUING (PRACTICE)

Cataloguing of Non Book Material and Electronic Resources According to AACR-II

Unit-1: Non-Book Materials

- Complexities of Periodicals

- Manuscripts

- Cartographic Materials

- Microforms

- Graphic Materials

Unit-2: Electronic Resources

- Sound Recordings

- Motion Pictures & Video Recordings

- Computer Files

- Web Resources

Information and Communication Technology (ICT) Applications in Library & Information Science (Theory)

Unit-1: Web Technologies in Libraries

- Web 2.0:, features, Tools and Services: Webcast, Web Conferencing, Blogs, Wikis, Online chat, Online forms and Discussion Groups

- Cloud Computing:, Benefits, Application in Libraries

- Web Directories, Subject Gateways, Library Portals, etc.

Unit-2: Integrated Library Automation and Networking Software

- Open Source Library Software and Applications

- Web based Library Management Software

- Library Software Securities Parameters

Unit-3: Digitization & Digital Libraries

- Digital Preservation:, Purpose, Planning and Issues

- Digital Libraries (DL) and Virtual Libraries:, Objectives and Advantages

- Meta Data: and Types

- Digital Libraries Software: Steps of building Digital Libraries using Greenstone Digital Library (GSDL), Dspace, Eprints

Unit-4: Emerging Technologies in Libraries

- Mobile based Library Services (WhatsApp, Quick Response (QR) codes, etc)

- Library Security Systems: RFID, Smartcard, Biometrics

- Expert Systems and Robotics in Libraries

- Content Management Systems: Drupal, Joomla, etc.

- Data Security, Network Security, Firewalls, Cryptographic Techniques, Anti-virus software, Anti-spyware, Intrusion Detection System

Research Methodology

Unit-1: of Research

- Research: Definition, , and Types of research (Qualitative and Quantitative).

- Research design

- Formulation of problem.

- Hypothesis formulation.

- Literature search: Print and Non-print and Electronic Sources.

Unit-2: Research Methods, Techniques and Tools

- Types of Research Methods: Scientific, Historical, Descriptive, Survey, Case Study, Delphi and Experimental.

- Research Techniques and Tools: Questionnaire, Schedule, Interview, Observation, Scales and Checklist, library records and reports.

- Sampling techniques.

Unit-3: Data Analysis and Interpretation

- Statistical Techniques: Descriptive statistics (Mean, Mode, Median).

- Measures of Dispersion: Mean deviation, Standard deviation.

- Presentation of Data: Tabular, graphic, bar diagram, pie-line graphics. Computerized data analysis: Use of SPSS and Spreadsheets, Bibexcel, R-Statistics.

Unit-4: Research Reporting, Referencing styles, Metric studies and Plagiarism

- Structure, style, contents, guidelines of Research Reporting.

- Style Manuals –MLA, APA, Harvard, Chicago, IEEE, etc.

- Metric studies in Library & Information Science: Scientometrics, Webometrics and Altmetrics.

- Impact Factors-Journal, Institutional and Authors, h-index, g-index, i10 index

Information and Communication Technology (ICT) Applications in Library & Information Science (Practical)

- Designing and Developing Library Websites

- Designing and Developing Mobile Library Websites

- Advanced Internet Searching

- Google Services & Resources

- Hands on Integrated Library Management Systems: KOHA/SOUL 2.0

- Managing measuring & maximizing research impact: Tools & Techniques

- Online Citation Tools - Citation Machine, Bibme, EasyBib, Harvard Generator, etc.

- Plagiarism: Detection tools- Turnitin, Urkund, Copy catch, CopyScape, Duplichecker, Viper, etc

- Reference Management tools - Mendeley, EndNote, Refworks, etc

- Academic Social Networking Tools- ResearchGate, Academia, CiteULike, Connotea, etc.

Information Storage and Retrieval

Unit-1: Information Storage and Retrieval Systems

- and Components.

- Assigned and Derived Indexing.

- Assigned Subject Headings: Library of Congress Subject Headings, Sears List of Subject Headings and Medical Subject Headings.

- Principles of Subject Indexing.

Unit-2: Pre & Post-Coordinate Indexing Systems

- Chain Indexing, PRECIS, POPSI.

- Uniterm Indexing

- Key Word Indexing: KWIC, KWAC, KWOC.

- Citation Indexing.

- Automatic Indexing.

Unit-3: Vocabulary Control

-, Purpose, Functions and Problem.

- Types and Characteristics of Vocabulary Control and its Tools: Thesaurus,

- Structure and Construction of an IR Thesaurus (UNESCO Thesaurus).

- Trends in Vocabulary Control.

Unit-4: Information Retrieval Models and Evaluation

- Search Strategies: Manual/Machine.

- Feedback and Refining.

- Evaluation of Information Retrieval Systems: Precision and Recall.

- Information Retrieval Projects (SMART, MEDLARS and Cranfield).

Information Literacy Applications in LIS

Unit-1: Fundamental of Information Literacy

-, and Purpose

- Areas of Information Literacy

- Standards & Models of Information Literacy

- Role of Libraries in Information Literacy

Unit-2: Information Literacy Programmes

- Types of Information Literacy Programmes in Libraries

- Study of Information literacy programmes in India;

- Study of Information literacy programmes: UK, USA and Australia;

Unit-3: Information Literacy Products and Designing ILP

- Information Literacy Products: Library Brochure, Database Brochure, Web-based Access Instructions, Information Bulletin, etc.

- Designing of Information Literacy Programme

Unit-4: Trends in Information Literacy

- Current trends in information literacy.

- Mobile based Information Literacy

**MAHATMA GANDHI CENTRAL UNIVERSITY**

**M. Lib. I. Sc + B. Lib. I. Sc.**

Research Methodology

**Unit I: Foundations of Research and Research Design**

Meaning, Need and Process of Research

Types of Research: Fundamental and Applied

Research Design, Types of Research Design

Designing Research Proposal, Literature Search and Literature Review

**Unit II: Research Methods**

Types of research: Qualitative and quantitative method of LIS research

Scientific Method

Historical Method, Survey and Case Study Method

Experimental Method

**Unit III: Data Analysis and Interpretation**

Data Collection Techniques: Questionnaire, Interview, Observation, Sampling and

Delphi

Presentation of Data-Tables, Charts and Graphs

Interpretation of Data: Frequency Distribution, Measures of Central Tendency,

Analysis of Time Series, Co-relation Studies and Analysis of Variance

Use of Statistical Packages

**Unit IV: Statistics and its Applications** Descriptive Statistics – Measures of Central Tendency: & Dispersion, Correlations and

linear regression, Chi-Square test, t-test, z-test, f-test Presentation of Data: Tabular, Graphic, Bar Diagram and Pie Chart, etc. Report Writing

Statistical Packages – MS-Excel, SPSS, and Web-based Statistical Analysis Tools, etc.

Plagiarism- Self plagiarism, anti-plagiarism guidelines and software

Metric Studies - Scientometrics, Infometrics and Webometrics

Style Manuals- Manual Structure, Style, Contents- MLA, APA, CHICAGO.

Marketing of Library and Information Products and Services

**Unit I: Information Analysis**

Information: Basic s

Consolidation and Repackaging of Information:, and process.

Guiding Principles for arrangement and presentation of idea in a helpful sequence.

Packaging and Repackaging of Information products

**Unit II: Information Products**

Information Products: s, nature, definitions, design and types

Information News-letters, Hand Books, House Bulletins

In-house Communication, Trade Bulletin, Product Bulletin, State-of-the-Art Report,

Trend Report

Technical Digests: Nature, , types, design; and development.

**Unit III: Content Analysis**

Content Analysis: types and processes.

Abstract: Definition and types, Characteristics and Qualities of good abstracts.

Abstracting:, process. Computers and Abstracting.

Abstracting organizations and Services.

**Unit IV: Planning, Management and Marketing**

Planning and Management of Information Analysis and Consolidation

Marketing of Information and benefits;

5 Ps of Information Marketing; Marketing of profit and non- profit organization;

Trends in marketing of Information Services; and Information Marketing in India.

**Intellectual Property Rights & Copyright**

**Unit I: Intellectual Property and Rights**

Intellectual Property:, Genesis, Development and Categories

Enforcement of Intellectual Property Rights

Role of WIPO

Emerging Issues in Intellectual Property Rights

**Unit II: Copyright**

Copyright: Meaning and Scope

Rights to Copyright Owner

Licensing of Copyright

Copyright Laws and Related Issues

**Unit III: Patents**

Patent: and Scope

Patent Laws in India

Patent Laws in Abroad

Violation and Infringement, Violation and Infringement - India - USA - UK

**Unit IV: Copyright& Patent in Digital Era**

Intellectual Property Digital Era: Meaning and Development

IPR Acts

Application of IPR in Electronic Environment

Copyright of Electronic Resources

Electronic Publishing

**Unit I: Electronic Publishing**

Scope

Nature

Types

**Unit II: Open Access Sources of Electronic Publishing**

Evolution of OAI

Open Access Sources

Pricing and Pricing models

Current Trends in E-publishing

**Unit III: Formats and Structure of E-Publishing**

Format of E-Publishing

Structure of E-Publishing

Languages of E-publishing

**Unit IV: Issues of E-Publishing**

Socio issues in E-Publishing

Economic issues in E-Publishing

Legal issues in E-Publishing

Information and Communication Technology Applications in LIS

(Theory)

**Unit I: Library Automation**

Purpose, Planning and Implementation

Library Automation Software: Types and Features

Open Source Library Software: Koha, Greenstone &D-Space

Automation of Housekeeping Operations: Acquisition, Cataloguing, Circulation,

Serials Control

**Unit II: Automated Services**

Electronic Reference Services

Bibliographic and Database Search Services

CAS/SDI in Automated Environment

Electronic Document Delivery Service, Library 2.0

**Unit III: Library Networks and Consortia**

Objectives, scope and characteristics

Major Library Networks: INFLIBNET, DELNET, OCLC

Library Consortia: E-ShodhSindhu

**Unit IV: Library Security Technology**

Barcode

RFID

CCTV, Biometrics, Smartcard

Content Management & Digital Library

**Unit I: Content management**

Content creation and Principles of CMS

CMS Architecture; system and data integration in CMS.

Creating and managing web page and content on web page

Fundamentals of planning dynamic websites

**Unit II: Content management Software and Application**

Overview of CMS software such as Wordpress, Drupal, Joomla, and others to create

dynamic and flexible websites

Evaluation of CMS.

Application of CMS; CMS and community information systems

Document management, records management, digital assets management

**Unit III: Digital Library**

Definitions, Fundamentals and Theoretical Aspects; Characteristics of Digital Libraries

and nature of Digital Library collections

Major Digital Library Initiatives

Design and Organisation of Digital Libraries: Architecture, Interoperability, Protocols

and Standards; User Interfaces

**Unit IV: Digital Resource Management**

Digital content creation: Electronic documents, files & formats & conversion to PDF

Digital Resources Management; Access to and Use of Digital Libraries

Digital Storage, Archiving and Preserving Digital Collections

Digital Libraries Technology: Digital Software - D-Space, E-Prints, GSD

Information Literacy Applications in LISL

**Unit I: Fundamental of Information Literacy**

Information Society and Information Literacy

Information Literacy: Definition, Models and Standards

Information Literacy: Strategic Plan

Information Literacy and Lifelong Learning

**Unit II: Information Literacy Programmes and Methodology**

Scope of Information Literacy Programme

National and International Programmes in Information Literacy

Implementation of Information Literacy

Information Literacy Products: Library Brochure, Database Brochure, Web based

Access Instructions, Information Bulletin

**Unit III: Application of Information Literacy**

Application of Information Literacy in Library and Information Centres

Information Literacy for Users

Information Literacy for Professionals

Information Literacy for Research and Development

**Unit IV: Trends in Information Literacy**

Web based Information Literacy System

OPAC Information Literacy System

Life Long Learning System

Designing of Information Literacy Programme

**Unit I: Basics of Information Retrieval Systems**

Definition, Components and Types of ISAR Systems

Elements of File Organisation

Artificial Intelligence and Expert System

Information Retrieval Models

**Unit II: Subject Representation and Indexing Languages**

Alphabetical Subject Representation

Contributions of Cutter, Kaiser, Ranganathan and Coates

Characteristics of Indexing Languages

Vocabulary Control-List of Subject Headings and Thesaurus

**Unit III: Indexing Systems and Techniques**

Assigned Indexing vs Derived Indexing

Assigned Indexing Systems: Pre-Coordinate (PRECIS, POPSI and Chain Indexing) and

Post-Coordinate Indexing System (Uniterm Index System)

Derived Indexing Systems: Title based (KWIC, KWOC and KWAC), Citation based

(SCI, SSCI, etc.) and Full-Text (STAIRS, LEXIS-NEXIS, etc.)

Automatic Indexing: COMPass

**Unit IV: Information Searching and Evaluation**

Search Methods and Search Strategy, Boolean Search

Information Searching in different Media: Print and Electronic

and Parameters of Evaluation - Retrieval Performance: Recall and Precision

Public Library and Information System

**Unit I: Public Libraries and their Development**

Objectives and Functions

History and Development of Public Libraries in India

History and Development of Public Libraries in Abroad

Role of Government and agency for the promotion and development of Public Libraries

in India

**Unit II: Collection Development and Management**

Books and Periodicals

Conference Literature, Grey Literature and Government Publications

Non-Book Materials: Electronic-Resources and Databases

Manuscripts

**UNIT III: Library Organization and Services**

Organizational Structure of Public Library

Staff Manual, Library Surveys, Statistics and Standards, etc.

CAS, SDI, Abstracting and Indexing Services, Library Bulletin, Newspaper Clipping

Services

Resource Sharing and Networking

**UNIT IV: Financial and Human Resource Management**

Determination of Finance, Sources of Finance

Types of Budget

Nature, Size, Selection, Recruitment, Qualification and Training

Responsibilities and Duties

Competency Development Case Study of Public Library in India

Academic Library and Information System

**Unit I: Academic Libraries and their Development**

Objectives and Functions

History and Development of Academic Libraries in India

History and Development of Academic Libraries in Abroad

UGC and its Role in the Development of College and University Libraries

**Unit II: Collection Development and Management**

Books and Periodicals

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**Unit IV: Financial and Human Resource Management**

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Types of Budget

Nature, Size, Selection, Recruitment, Qualification and Training

Responsibilities and Duties

Competency Development Case Study of Academic Library in India

Research and Technical Library and Information System

**Unit I: Research and Technical Libraries and their Development**

Objectives, Functions, and Development of Research and Technical Library in India

History and Development of Research and Technical Library in Abroad

Promotion and Development of Research and Technical Library in India

Research and Technical Libraries and its Relationship with Parent Organization

**Unit II: Collection Development and Management**

Books and Periodicals

Conference Literature, Grey Literature and Government Publications

Non-Book Materials: Electronic-Resources, Databases

**Unit III: Library Organization and Services**

Organizational Structure of Research and Technical Library

Staff Manual, Library Surveys, Statistics and Standards, etc.

CAS, SDI, Abstracting and Indexing Services, Library Bulletin

Resource Sharing and Networking

**Unit IV: Financial and Human Resource Management**

Determination of Finance, Sources of Finance

Types of Budget

Nature, Size, Selection, Recruitment, Qualification and Training

Responsibilities and Duties

Competency Development Case Study of Research and Technical Library in India

Health Science Library and Information System

**Unit I: Health Science Libraries and their Development**

Objectives and Functions

History and Development of Health Libraries with Special Reference to India

History and Development of Health Libraries with Special Reference to AbroadMedical Libraries Information Policies in India

**Unit II: Collection Development and Management**

Books and Periodicals

Conference Literature, Grey Literature and Government Publications

Non-Book Materials: Electronic-Resources

Databases

**Unit III: Library Organization and Services**

Organizational Structure of Medical Libraries

Staff Manual, Library Surveys, Statistics and Standards, etc.

CAS, SDI, Abstracting and Indexing Services, Library Bulletin

Resource Sharing and Networking

**Unit IV: Financial and Human Resource Management**

Determination of Finance, Sources of Finance

Types of Budget

Nature, Size, Selection, Recruitment, Qualification and Training

Responsibilities and Duties

Competency Development Case Study of Health Libraries in India

Preservation & Conservation of Library Materials

**Unit I: Basics of Preservation and Conservation: Overview**

Preservation and Conservation: Historical Development, Need and Purpose

Preservation of Print Materials: Books, Periodicals, Pamphlets

Digital Preservation

**Unit II: Preservation of Non-Print Materials**

Palm Leaves

Manuscripts

Films

Pen Drive, DVD

**Unit III: Hazards and Control Measures to Library Materials**

Environmental Factor (Temperature, Humidity, Water, Light, Air Pollution, Smoke,

Dust, etc)

Chemical Factors

Biological Factors

**Unit IV: Binding**

Types of Binding of Library Materials

Binding Material and their Varieties

Binding Process

Standards for Library Binding

Knowledge Management

**Unit I: Basics of Knowledge Management**

Basics of Knowledge

Types of Knowledge: Explicit Knowledge and Implicit Knowledge

Scope of Knowledge Management

Knowledge Management Cycle

**Unit II: Knowledge Management: Creation & Tools**

Knowledge Creation, Access, Transfer and Sharing

Knowledge Tools

Knowledge Networks

Knowledge in Decision Making

**Unit III: Pre-requisites of Knowledge Management**

Sharing of Expertise

Knowledge Mapping

Knowledge Worker

**Unit IV: Trends and Challenges of Knowledge Management**

KM Initiatives in Indian Organization

Software for Knowledge Management

Pioneers in Knowledge Management

Advances in Knowledge Management

Informetrics

**Unit I : Informetrics**

Genesis, scope and definition

Librametry,Bibliometrics

Scientometrics

Webometrics

**Unit II : Bibliometrics Laws**

Classical Bibliometrics laws: Zip’s law, Lotka’s law, Bradford’s Law of Scattering;

Generalized Bibliometrics distributions.

Fitting of Informetrics models : Bradford’s Curve, Leimukuhler’s Distribution.

Aspects of concentration measures; 80-20 rule, Price’s Law relating to scientific

productivity Analysis of use statistics.

**Unit III : Growth and Obsolescence of Literature**

Various growth models;

Aging factor and half life: real vs. apparent

synchronous vs. diachronous.

**Unit IV : Citation analysis and Science Indicators**

Bibliographic Coupling and Co-citation Analysis

Science indicators: Impact factor, h-index, g-index, i-10

Mapping of Science

Information Resource Development

**Unit I: Types of Information Resources**

Documentary (Primary, Secondary & Tertiary)

Non-Documentary

E-Resources

**Unit II: Book Selection Principles**

Drury’s Principle

Dewey’s Principle

McColvin’s Principle

Ranganathan’s Principle

**Unit III: Selection Tools**

Current List, Bibliographies

Library Catalogue

Books in Print

Publishers’ Catalogue, Directories, WebOPAC (WorldCat), Websites

**Unit IV: Categories of Documents**

Physical Characteristics

By Information Characteristics

Books and Periodicals, Theses and Dissertations

Govt. Publications, Grey Literature

Research and Publication Ethics

Unit I: Philosophy and Ethics

Introduction to philosophy: definition, nature and scope, ,

branches

Ethics: definition, moral philosophy, nature of moral judgements and

reactions

Unit II: Scientific Conduct

Ethics with respect to science and research

Intellectual honesty and research integrity

Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP)

Redundant publications: duplicate and overlapping publications, salami

slicing

Selective reporting and misrepresentation of data

Unit III: Publication Ethics

Publication ethics: definition, introduction and importance

Best practices / standards setting initiatives and guidelines: COPE,

WAME, etc

Conflicts of interest

Publication misconduct: definition, , problems that lead to

unethical behavior and vice versa, types

Violation of publication ethics, authorship and contributorship

Identification of publication misconduct, complaints and appeals

Predatory publishers and journals

SECTION (B): Research and Publication Ethics (Practice) 50

Marks

Unit IV: Open Access Publishing

Open access publications and initiatives

SHERPA/RoMEO online resource to check publisher copyright & self

archiving policies

Software tool to identify predatory publications developed by SPPU

Journal finder / journal suggestion tools viz. JANE, Elsevier Journal

Finder, Springer Journal Suggester, etc.

Unit V: Publication Misconduct

A. Group Discussion

Subject specific ethical issues, FFP, authorship

Conflict of interest

Complaints and appeals: examples and fraud from India and abroad

B. Software Tools

Use of plagiarism software like Turnitin, Urkund & other open source

software tools.

Unit VI: Databases and Research Metrics

A. Databases

Indexing databases

Citation databases: Web of Science, Scopus, etc.

B. Research Metrices

Impact factor of Journal as per Journal Citation Report, SNIP, SJR, IPP,

Cite Score

Metrices: h-index, g index, i10 index, altmetrics

Research Methodology

Unit I: Foundations of Research and Research Design

Meaning, and Process of Research

Types of Research: Fundamental and Applied

Research Design, Types of Research Design

Designing Research Proposal, Literature Search and Literature Review

Unit II: Research Methods

Types of research: Qualitative and quantitative method of LIS research

Scientific Method

Historical Method, Survey and Case Study Method

Experimental Method

Unit III: Data Analysis and Interpretation

Data Collection Techniques: Questionnaire, Interview, Observation, Sampling

and Delphi

Presentation of Data-Tables, Charts and Graphs

Interpretation of Data: Frequency Distribution, Measures of Central Tendency,

Analysis of Time Series, Co-relation Studies and Analysis of Variance

Use of Statistical Packages

Unit IV: Statistics and its Applications

Descriptive Statistics – Measures of Central Tendency: & Dispersion,

Correlations and linear regression, Chi-Square test, t-test, z-test, f-test.51 52

Presentation of Data: Tabular, Graphic, Bar Diagram and Pie Chart, etc. Report

Writing Statistical Packages – MS-Excel, SPSS, and Web-based Statistical

Analysis Tools, etc.

Plagiarism- Self plagiarism, anti-plagiarism guidelines and software

Knowledge Management

Unit I: Basics of Knowledge Management

of Knowledge

Types of Knowledge: Explicit Knowledge and Implicit Knowledge

and Scope of Knowledge Management

Knowledge Management Cycle

Unit II: Knowledge Management: Creation & Tools

Knowledge Creation, Access, Transfer and Sharing

Knowledge Tools

Knowledge Networks

Knowledge in Decision Making

Unit III: Pre-requisites of Knowledge Management

Sharing of Expertise

Knowledge Mapping

Knowledge Worker

Unit IV: Trends and Challenges of Knowledge Management

KM Initiatives in Indian Organization

Software for Knowledge Management

Pioneers in Knowledge Management

Advances in Knowledge Management

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE SCHOOL OF SOCIAL SCIENCES

PhD

**CWLIS-1: Research Methodology**

**Unit 1 Basics of Research (15 hrs)**

Concept, Meaning, types, trends, design. ethics for research.

Formulation of research problem and hypotheses.

Research reporting-contents, formats, guidelines.

Style manual and reference management tools.

**Unit 2 Research Methods and Tools (15 hrs)**

Types of Research

Research Methods

Data Collection- Tools and Techniques

Sampling Techniques and their applications

**Unit 3 Data Analysis Techniques (15 hrs)**

Data Analysis and Interpretation

Quantitative Methods

Test of Significance, Statistics: t- Test, X 2 - Test, ANOVA etc.

Computer Applications- MS-Office, SPSS etc.

**Unit 4 LIS Research (15 hrs)**

Nature, Significance, Levels, Opportunities and Sponsorship

Thrust and Emerging Issues

Research output and its communication

Issues, Challenges and trends in India

**Library System**

**Unit 1 Perspective of Library System (15 hrs)**

Fundamentals of library

Library Systems

Changing perspective of Library in Education system

Implications for the development of library system.

**Unit 2 Public Library System (15 hrs)**

Basics of Public Library

Services governance, functions, modernization and trends

Collections, users, finance and management

Legislative support for Public Library

**Unit 3 Academic Library System (15 hrs)**

Fundamentals of Academic Library

Types, levels and services

Governance, functions, users and finance,

Management trends and modernization

**Unit 4 Special Library System (15 hrs)**

Foundation of Special Library

Levels, characteristics and services

Governance, grievances, users and finance

Management trends and modernization

**ICT Applications in Libraries**

**Unit 1**. **Fundamental Concepts**. **(15 hrs)**

Basics of ICT tools

Trends and Developments

ICT in Knowledge Society

Disruptive Technology

**Unit 2**. **ICT applications in Libraries (15 hrs)**

Local, national & global perspectives

Place of ICT in Libraries

Role in Library Modernization

Issues, Challenges and Trends

**Unit 3. Digital Library System (15 hrs)**

Digitization and Digital Library

Software for Digital Library Development

Digital collection and archiving

Institutional Repositories

**Unit 4**. **Emerging Trends (15hrs)**

Smartphone applications

Social Networking Sites and Websites

Subject Gateways and OSS

Cloud computing

**LIS Education**

**Unit 1**. **Foundation of LIS Education (15 hrs)**

Origin, Growth and Development

Sociology of LIS Education.

Trends in Library and Information Science Education.

LIS Education in India and its trends

**Unit 2**. **Curriculum and Courses (15 hrs)**

Different levels of Courses and Curricula

Blending Tradition with technology

Objectives and outcomes

Multidisciplinary approach

**Unit 3. Teaching techniques and evaluation (15 hrs)**

Innovative Techniques

ICT Integration

Traditional Methods

Evaluation Programme

**Unit 4. Faculty development (15 hrs)**

Capacity and Competency Building

Faculty Development Programme

Continuing Education for Faculties

Training Facilities in India

**Library Management**

**Unit 1**. **Management thoughts (15 hrs)**

Basics of Management

School of Management Thoughts

Comparative analysis of recent managerial philosophies

Trends in Library Management

**Unit 2. Personal and Financial Management (15 hrs)**

Basics of Personal Management

Job analysis, description and evaluation

Basics of Financial Management

Principles, types and resource mobilization

**Unit 3**. **Management of Information Resources (15 hrs)**

Nature of Information Resources

General management principles of information resources

E-resources management

Delivery of information resources

**Unit 4. Collection Development Policy (15 hrs)**

Basics, concepts, formulation and types

Planning for collection development

Cooperative collection development-trends and challenges

Collection evaluation and Review.

**Trends in Bibliometrics**

**Unit 1. Basics of Bibliometrics (15 hrs)**

Meaning concepts and definition

From Librametry to Bibliometrics

Bibliometrics in LIS Research

Changing Dimensions in Bibliometric Studies

**Unit 2. Laws of Bibliometrics (15 hrs)**

Classical Laws of Bibliometrics

Application of Bibliometric Laws

Laws of Scientific Productivity

Concentration Measures

**Unit 3. Trends in Metric studies (15 hrs)**

Informetrics

Scientometrics

Webometrics

Altametrics

MASTER OF LIBRARY AND INFORMATION SCIENCE (MLIS) TWO

**Foundation of Librarianship and Information Studies**

**Unit I: Fundamentals of Librarianship (1 Credit/ 15 Teaching Hours)**

Library**-** Genesis, History, Functions, Objectives and Movement

Modern Concept of Library

Roles of Library in Contemporary Society

Types of Library- Public, Academic Special and National

**Unit II: Principles, Laws and Legislations (1 Credit/ 15 Teaching Hours)**

Normative Principles and Laws of Library Science

Legal Deposit, Delivery of Book Acts, Copy Right Act

Model Library Act

Library Legislations in India with reference to North East India and Manipur

**Unit III: Associations and Institutions (1 Credit/ 15 Teaching Hours)**

International- IFLA, UNESCO, READ Global, Bill and Melinda Gates Foundation, etc.

National- ILA, IASLIC, SLA, ALA, CILIP, RRRLF, IPLM, etc.

Regional- North Eastern States

Study of Library Associations and Institutions in Manipur

**Unit IV: Professionalism (1 Credit/ 15 Teaching Hours)**

Basics of professionalism- Meaning, Concept, Scope

Library and Information Science Profession

Professional Ethics- Concept, Definition, and Characteristics, Standards

Professional Skills and Capacity Building

**Information and Knowledge Resources**

**UNIT 1: Basics of Information and knowledge resources (1 Credit/ 15 Teaching Hours)**

Meaning, Concept, Need and Scope

Origin, Growth and Development

Types, Characteristics, Utilization and Limitations.

Evaluation and Guidelines for Evaluation.

**UNIT 2: Documentary Resources (1 Credit/ 15 Teaching Hours)**

Meaning, Scope, Types and Characteristics

Primary Information Resources

Secondary Information Resources

Tertiary Information Resources

**UNIT 3: Non-Documentary Resources (1 Credit/ 15 Teaching Hours)**

Meaning, Scope, Types and Characteristics

Human Resources

Organisational/ Institutional Resources

E-Resources- Computerized databases, Multimedia, Web based.

**UNIT 4: Information Resources by subjects (1 Credit/ 15 Teaching Hours)**

Information Resources in Science and Technology

Information Resources in Social Sciences

Information Resources in Humanities

Multidisciplinary Information Resources

**Classification Theory**

**Unit I: Fundamentals of Knowledge Organisation (1 Credit/ 15 Teaching Hours)**

Knowledge Organisation-Concepts, Tools and Methods

Universe of Knowledge -Structure and Development, Modes of Subject Formation

Normative principles and Five Fundamental categories

Concepts of call number: Class Number, Book Number and Collection Number

**Unit 2: Library Classification (1 Credit/ 15 Teaching Hours)**

Concepts, Meaning, Need, Purpose, Functions and General Theory

Library Classification: Base for Knowledge Organisation

Growth and Development of Classification Schemes

Study of Colon Classification (CC) and Dewey Decimal Classification (DDC)

**B: Classification Practice Unit 3: Classification Using CC-6 (1 Credit/ 30 Teaching Hours)**

Simple and Compound Subjects

**Unit 4: Classification Using DDC-23 (1 Credit/ 30 Teaching Hours)**

Simple and Compound Subjects

**Cataloguing Theory**

**Unit 1: Fundamentals of Library Cataloguing (1 Credit/ 15 Teaching Hours)**

Library Catalogue: Definition, Objectives, Needs and Functions

Cataloguing as Base for Knowledge Organisation and Retrieval

Library Catalogue Codes: History, Growth, Development and Trends

Physical Forms and Types of Catalogues, Types of Catalogues, Kinds of Entries

**Unit 2: Entries, Filing and Subject Cataloguing (1 Credit/ 15 Teaching Hours)**

Data Elements and Types of Entries

Subject cataloguing-Concept, Meaning, Purpose, Approaches and Trends

Chain Indexing and Sears List Subject Headings

Salient Features of CCC-5 and AACR-2R

**B: Cataloguing Practice Unit 3: Cataloguing using Classified Catalogue Code, 5th edition (1 Credit/ 30 Teaching Hours)**

Resources having Single Authorship

Resources having Shared Responsibilities

Resources with Editorial Directions and Corporate Authorship

Derivation of Subject Index through Chain Procedure

**Unit 4: Cataloguing Using AACR – 2R (1 Credit/ 30 Teaching Hours)**

Resources having Single Authorship and Shared Responsibilities

Resources with Editorial Directions

Corporate Authorship

Assignment of Subject Heading as per Sear List of Subject Headings

**ICT Fundamentals of LIS**

**Unit 1: Basics and Fundamentals of ICT (1 Credit/ 15 Teaching Hours)**

 Computer System-Generation, Classification, CPU, Input, Output

 Number systems, Character Representation - ASCII, UNICODE

 Hardware and Accessories- Input / Output Devices, Optical Devices- CD, DVD, Storage and Memory

**Unit 2: Operating System and Software (1 Credit/ 15 Teaching Hours)**

Meaning, Types and Functions of Operating System

System Software and Application Software

Programming Language, Scripting Languages, DBMS, RDBMS, Models of DBMS

Algorithm, Flow Chart and data Structure

**Unit 3**: **Telecommunication Technology and Networks (1 Credit/ 15 Teaching Hours)**

Basics of telecommunication Technologies

Data communication and Data/Information Security

Network Types and Topologies, LAN, MAN and WAN.

Hardware Requirements for setting up of LAN

**Unit 4: ICT in LIS (1 Credit/ 15 Teaching Hours)**

History, Need, importance, purpose, role and significance

ICT Based Library and Information System

Areas of Applications in LIS

Library Transformation and ICT

**Information Systems & Services**

also able to provide information services to the library patrons in different environment. **Unit 1**: **Basics of Information Systems (1 Credit/ 15 TeachingHours)**

Meaning, Definition, Scope

Nature and Characteristics

Kinds and Categories of Information System

Data Centres, Data Banks

**Unit 2: Information Systems and Programmes (1 Credit/ 15 Teaching Hours)**

Characteristics, Structure, functions, products and services of Information Systems

Global Information System- INIS, AGRIS, BIOSIS, MEDLARS

National Information System - UK, USA, India (NISCAIR, NISSAT, DESIDOC, DRTC, etc.);

Regional Information System- SAARC, PADIS.

**Unit 3: Information Services (1 Credit/ 15 Teaching Hours)**

Meaning, Definition, Scope, Need and Characteristics

Conventional Services, Reference, Translation and Referral and Alerting Services

Digest Service, Rural Base Services, Translation Service

E-based Services, Document Delivery Services, Reprographic Services

**Unit 4: Systems and Services in Network Environment (1 Credit/ 15 Teaching Hours)**

Meaning, Characteristics, Functions and Nature of Services

Services under Library Co-operation

Services under Resource Sharing and Consortia

Services under DELNET, INFLIBNET, INDEST.

**Management of Library and Information System**

**Unit 1: Fundamentals of Management (1 Credit/ 15 Teaching Hours)**

Management: Concept, Definition, Needs, and Functions

Schools of Management Thought

Management by Objectives (MBO), Organisational Structure

Principles of Management

**Unit 2: Library Housekeeping Operations (1 Credit/ 15 Teaching Hours)**

Different Sections of Library - Routine Functions

Collection Development- Policies, methods, procedure and Trends in Acquisition

Technical Processing, Serial Control, Circulation Methods

Shelving, Maintenance, Stock verification, Archiving and Disaster Management

**Unit 3: Library Governance (1 Credit/ 15 Teaching Hours)**

Human Resource Management- Manpower Planning

Financial Management: Concept, Principles and Types and Resource Mobilisation

Library Committee- Need, Role, Types, Rules and Regulations and Functions

Job Analysis, Job Description and Job Evaluation

**Unit 4: Planning and Performance Evaluation (1 Credit/ 15 Teaching Hours)**

Planning: Concept, Need and Levels

Performance Appraisal, Annual Report, Statistics

SWOT Analysis, PERT/CPM Techniques

Total Quality Management (TQM), Change Management

**Classification Theory**

**Unit 1: Fundamentals of Library Classification (1 Credit/ 15 Teaching Hours) 18 |** P a g e

Planes of Work, Canons, Postulates

Facet Analysis and Facet Sequence

Phase Relation, Common Isolates

Devices and Mnemonics

**Unit-2 Study of Classification Schemes (1 Credit/ 15 Teaching Hours)**

Notation – Meaning, definition, qualities and types

Mapping of subjects in Classification- Structure and Techniques

In-depth study of DDC

In-depth study of UDC

**B: Classification Practice Unit-3 Classification Using DDC (1 Credit/ 30 Teaching Hours)**

Classification of Compound and Complex subjects

**Unit-4 Classification using UDC (1 Credit/ 30 Teaching Hours)**

Classification of Compound and Complex subjects

**Knowledge Organization**

**Unit 1: Standardisation in Cataloguing (1 Credit/ 15 Teaching Hours)**

Meaning, Need and Purpose of standardisation

Bibliographic Standards: ISBD, CCF, ISO-2709 and Z39.50

Metadata Standards in MARC-21 and Dublin Core

Emerging Trends in Standardisation-RDA

**Unit 2: Study of Cataloguing Codes and Trends (1 Credit/ 15 Teaching Hours)**

Study of AACR-2R, MARC-21

Features of RDA

Cooperative Cataloguing- OCLC, LC, CORC (Cooperative Online Resource Cataloguing)

Web Based Cataloguing-OPAC, WEBOPAC and Co-OPAC

**B: Cataloguing Practice Unit 3: Cataloguing Using AACR – 2R (1 Credit/ 30 Teaching Hours)**

Periodicals, Manuscripts, Cartographic Materials; Microforms, Graphic Materials

**Unit 4: Cataloguing Using MARC-21 (1 Credit/ 30 Teaching Hours)**

Simple and Compound Materials

**Information Consolidation, Repackaging & Retrieval**

**Unit 1: Information Retrieval System (1 Credit/ 15 Teaching Hours)**

Meaning, Definition, Components

Indexing – Concept, Methods and Systems

Pre-Coordinate and Post-Coordinating Indexing

Precis and POPSI

**Unit 2: Indexing Language Vocabulary Control (1 Credit/ 15 Teaching Hours)**

Indexing Languages: Basic Concepts, Types and Characteristics

Automatic Indexing (KWIC and KWAC)

Vocabulary Control- Definition, tools and devices

Thesaurus-Importance, Structure, Function and design

**Unit 3: Information Retrieval Models (1 Credit/ 15 Teaching Hours)**

IR Models: Concept, purpose and need

IR: Process and Techniques, Basic Retrieval methods, Manual and automated

Search Strategies and techniques, Boolean logic, Cognitive, Fuzzy and Probabilistic

Evaluation of IR Systems, Purpose and Criteria for evaluation

**Unit 4: Abstracting, Repackaging and Consolidation (1 Credit/ 15 Teaching Hours)**

Abstract and Abstracting- Concept, Meaning, Types & guidelines in preparing Abstract

Information Repackaging-Concept, meaning, utility, and types

Information Consolidation**-** Concept, meaning, utility, and types

Information repackaging and consolidation products and services

**Research Methodology in LIS**

**Unit 1: Concept of Research (1 Credit/ 15 Teaching Hours)**

Research: Concept, Need and Purpose

Types of Research-Qualitative, Quantitative and Multidisciplinary

Research Problem and Research Design

Hypothesis: Definition, Types, Sources and Functions

**Unit 2**: **Research Methods, Techniques and Tools (1 Credit/ 15 Teaching Hours)**

Methods-Historical, Survey, Experimental, Scientific, Observation, Delphi and Case Study

Applied and Fundamental Research- Meaning, Concept and Need

Sampling Techniques

Data Collection Tools- Questionnaire, Interview, Observation, Schedule and Check-list

**Unit 3: Data Analysis and Interpretation (1 Credit/ 15 Teaching Hours)**

Measures of Central Tendency, Dispersion, Variables, Correlations and regression

Testing of Hypothesis using Chi-Square test, t-test, z-test, F-test.

Presentation of Data: Tabular, Graphic, Bar Diagram and Pie Chart, etc.

Using Statistical Packages – MS-Excel, SPSS, and Web-based Statistical Analysis Tools

**Unit 4: LIS Research, Metric Studies and Reporting (1 Credit/ 15 Teaching Hours)**

LIS Research in India and abroad - History, Development and Trends

Metric studies – From Librametrics to Webometrics

Style Manuals: Citations/ References, Tools, Manuals and Plagiarism

Research Reporting: Structure, Style and Contents

**Information Communication in Knowledge Society**

**Unit 1: Data, Information and Knowledge (1 Credit/ 15 Teaching Hours)**

Objective, Meaning, Nature, Characteristics, Scope, Type and Properties

Differences and Relationship in Knowledge Spectrum

Roles in Research and Development Activities

Contributions in Societal Development

**Unit 2: Information Communication (1 Credit/ 15 Teaching Hours)**

Information Generation and Communication- Modes and Impact of Information Technology

Information Transfer Chain,

Channels of Communication

Barrier to Information Communication, Diffusion Models

**Unit 3: Information and Knowledge Society (1 Credit/ 15 Teaching Hours)**

From Agrarian to Knowledge Society

Genesis, Nature and Characteristics of Information Society

Genesis, Nature and Characteristics of Knowledge Society

Human Intellectual Capital, Knowledge Product and Knowledge Economy

**Unit 4: Intellectual Property Rights (IPR), National Information Policy (NIP) (1 Credit/ 15 Teaching Hours)**

IPR-Concept, Genesis, Development and Trends

Categories of IPR, Acts, Role of WIPO, Copyright Laws, and Emerging Issues

NIP- NAPLIS, National Policy on University Library, RTI and IT Act

National Knowledge Commission (NKC), Open Access Initiatives (OAI)

**ICT Applications in LIS (Theory)**

**Unit 1: Library Automation (1 Credit/ 15 Teaching Hours)**

Meaning, concept, areas and scope

Planning, Design and Implementation - Process and Procedures

Automation of Housekeeping Operations

Automatic Identification methods Barcode, RFID

**Unit 2: Software Packages (1 Credit/ 15 Teaching Hours)**

Integrated Library Management Software (ILMS)

Features of Commercial, Freeware and Open Source Software

Request for Proposal (RFP) \

Evaluation and Selection of ILMS

**Unit 3: Digital Library (1 Credit/ 15 Teaching Hours)**

Genesis, Meaning, Definition, Objectives, Characteristics and Advantages

Digitization- Concept, Purpose, process, Planning

File Formats-Image format, Audio and Video Format

Digital Rights Management

**Unit 4: Developing Digital Library (1 Credit/ 15 Teaching Hours)**

Digital Library Initiatives in India and Abroad

Institutional Repository Vs Digital library

Building a Digital Library-Planning and Implementation

Features of Softwares-GSDL, DSpace, E-Prints

**ICT Applications in LIS (Practice)**

The students are given an intensive exposure to the operation and handling of the following Packages:

Study of Library Automation Software (Teacher designs the aspects to be studied)

SOUL2.0 and other Library Software like KOHA.

Digital Library Software- DSpace and GSDL

The examiner at the end tests the awareness of the students and conduct viva-voce test.

**Library Systems Study**

**Part A: Theory (50 marks, 2 Credits) Unit-1**: **Understanding System (1 Credit/ 15 Teaching Hours)**

General Systems Theory

System Life Cycle

System Analysis and Design

Tools, Techniques, Approaches, Cost, Evaluation

**Unit-2**: **Library System Analysis, Design and Evaluation (1 Credit/ 15 Teaching Hours)**

Systems Approach to Library

Study of Library as a System

Analysis and Design of Library system

Evaluation of Library System

**Unit 4. Metric Applications (15 hrs)**

Citation Studies

Impact Factor

Web Impact Factor

University/Institutional Ranking.

**Users Study and Information Literacy**

**Unit 1. Information Users (15 hrs)**

Meaning psychology and identification

Categories and levels

Characteristics of users

As consumer and disseminator of information.

**Unit 2. Users Needs (15 hrs)**

Information Needs and its Models

Information seeking Behaviour

Users in different information environment

Contribution of Mensal, Paisley, Allan, etc.

**Unit 3**. **Users Study (15 hrs)**

Origin, development and trends

Different generations on user study

Landmark and Benchmark studies

Methods. Tools and Techniques

**Unit 4. Information Literacy (15 hrs)**

objectives and areas

Application in Library and Information Centres

Guidelines and Standards

Models of Information Literacy

**PHILOSOPHY AND ETHICS (3 hrs)**

Introduction to philosophy: definition, nature and scope, concept, branches

Ethics: definition, moral philosophy, nature of moral judgements and reactions

**Unit- 2: SCIENTIFIC CONDUCT (5 hrs)**

Ethics with respect to science and research

Intellectual honesty and research integrity

Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP)

Redundant publications: duplicate and overlapping publications, salami slicing

Selective reporting and misrepresentation of data

**Unit- 3: PUBLICATION ETHICS (7 hrs)**

Publication ethics: definition, introduction and importance

Best practices/standards setting initiatives and guideline: COPE, WAME, etc.

Conflicts of interest

Publication misconduct: definition, concepts, problems that lead to unethical behaviour and vice versa, type

Violation of publication ethics, authorship and contributor ship

Identification of publication misconduct, complaints and appeals

Predatory publishers and journals

**PRACTICE**

**Unit- 4: OPEN ACCESS PUBLISHING (04)**

Open access publications and initiatives

SHERPA/ROMEO online to cheek publisher copyright & self-archiving policies

Software tool to identify predatory publications developed by SPPU

Journal finder/journal suggestion tools viz JANE, Elsevier Journal Finder, Springer Journal Suggester, etc.

**Unit- 5: PUBLICATION MISCONDUCT (4 hrs)**

**A. Group Discussions (2 hrs)**

Subject specific ethical issues, FFP, authorship

Conflicts of interest

Complaints and appeals: examples and fraud from India and abroad

**B. Software tools (2 hrs**)

Use of plagiarism software like Turnitin, Urkund and other source software tools

**Unit 6: DATABASES AND RESEARCH METRICS (7 hrs)**

**A. Databases (4 hrs)**

Indexing databases

Citation databases: Web of Science, Scopus, etc.

**B. Research Metrics (3 hrs)**

Impact Factor of journal as per Journal Citation Report, SNIP, SJR, IPP, Cite Score

Metrics: h-index, g index, i10 index, Altmetrics

**Web Technology**

**Unit 1: Basics of Web Technology (1 Credit/ 15 Teaching Hours)**

Introduction to Web Technology, Meaning and applications

HTML: Basics, Hypertext, Hypermedia, HTML Programming

Web browsers, Search Engines, Directory, Portals, ISPs

World Wide Web, Web Servers, Proxy Servers, Domain Name Servers

**Unit 2: Internet and Its Connectivity (1 Credit/ 15 Teaching Hours)**

Internet Connectivity, Dial Up, Leased Line, ISDN, Wi-Fi

Internet protocols-HTTP, HTTPS, FTP

Remote Login, OAI-PMH

Web 2.0., Lib 2.0, Web Security

**Unit 3: Web Site Development (1 Credit/ 15 Teaching Hours)**

Websites, URL, Weblogs/Blogs

Web Page Design and Its Principles

Hyperlinks and Their design

**Unit 4: Web Based Services (1 Credit/ 15 Teaching Hours)**

E-mailing, Discussion Board, Chat & instant message

Conferencing-Audio and Video,

Social Networks and Wikipedia

Web Based resources and other services

**Users and User Study**

**Unit 1: Understanding Users and Their Needs (1 Credit/ 15 Teaching Hours)**

Identifying users and psychology

Categorization of user-Potential, habitual and professional groups

Information needs of users-Levels, kinds, affecting factors, dynamics

Models of Information Needs

**Unit 2: Behaviour of Users (1 Credit/ 15 Teaching Hours)**

Theories of Information Seeking

Information Seeking Behaviour

Users in different Information Environment

Contributions of Mensal,Paisley, T.J. Allen, Dervin, Crane and others.

**Unit 3: User Studies (1 Credit/ 15 Teaching Hours)**

Origin, development and evolution of user studies

The first-generation studies- their characteristics, contributions and limitations;

The second-generation user studies-Their characteristics and contributions,

Landmark and bench mark studies and Usage studies.

**Unit 4: Methods and Tools in Users Studies (1 Credit/ 15 Teaching Hours)**

Quantitative and Qualitative Methods

Survey, Experimental, Questionnaire, Interview and other traditional methods

Participant observation, Diary method, time-line series method of Dervin and others

Use of psychometric methods

**Preservation and Conservation of Information Resources**

**Unit 1: Basics of Preservation and Conservation (1 Credit/ 15 Teaching Hours)**

Concept, Meaning, Need, Purpose, Measures & Trends

Historical development of writing materials

Different information resources and their nature and preservation

Preservation and Conservation measures

**Unit-2: Hazards to Information Resources (1 Credit/ 15 Teaching Hours)**

Environmental factor

Biological factor

Chemical factor

Disastrous factor

**Unit-3: Preservation Techniques (1 Credit/ 15 Teaching Hours)**

Binding

Safety and Security measures

Use of Chemicals

Disaster management

**Unit-4: Conservation Techniques (1 Credit/ 15 Teaching Hours)**

Repairing of materials

Microfilming

Digitisation

Digital Archiving

**Metric Studies in LIS**

**Unit 1: Basics of Metric Study (1 Credit/ 15 Teaching Hours)**

Meaning, Concept, Scope, Need

From Librametry to Bibliometrics, Generalised bibliometric distributions

Classical Bibliometric Laws**:** Zipf‟s Law, Lotka‟s Law, Bradford Law

Bibliographic Coupling, Bradford‟s Curve

**Unit 2: Growth and obsolescence of literature (1 Credit/ 15 Teaching Hours)**

Growth of Literature and growth models

Obsolescence Study-the half-life analogy, determination of aging factor and half-life, real vs apparent, synchronous and diachronous.

Aspects of concentration measures, 80-20 Rules

Laws of scientific productivity

**Unit-3: Citation Studies (1 Credit/ 15 Teaching Hours)**

Meaning, Concept, Scope and Trends

Citation Study

Citation Analysis

Impact factors

**Unit 4: Trends in Metric studies (1 Credit/ 15 Teaching Hours)**

Almetrics: Genesis, scope and definitions and applications

Informetrics: Genesis, scope and definitions and applications.

Scientometrics: Genesis, scope and definitions and applications,science indicators and mapping of science.

Webometrics: Genesis, scope and definitions, Web Impact factors, Applications in the Evaluation of Websites and the evaluation parameters.

**Marketing of Information Products & Services**

**Unit 1: Basics of Information Marketing (1 Credit/ 15 Teaching Hours)**

Concept, Meaning, Needs and Characteristics

Production, Demand and supply of Information

Distribution of Information

Profit and Non-profit Marketing

**Unit 2: Information Products & Services (1 Credit/ 15 Teaching Hours)**

Strategic Objectives, Generation and Design

Testing and analysis of commercial feasibility

Test Marketing

Commercialising the products and services

**Unit 3: Pricing Models (1 Credit/ 15 Teaching Hours)**

Setting the pricing objectives.

Determining demand and estimating costs.

Estimating costs.

Selecting pricing model and adopting pricing strategies.

**Unit 4: Marketing Strategies and Planning (1 Credit/ 15 Teaching Hours)**

Market Research, Analysis and Segmentation.

Developing Organizational, Controlling and evaluation Skills.

Organisational performance, market audit, implementation and control

Marketing Strategy, Planning and Policy

**Collection Development**

**Unit I: Collection and Its Development (1 Credit/ 15 Teaching Hours)**

Nature of library collections

Collection Development –Concept, Meaning, Definitions

Managing library collections

Need, Goals and Methods

**Unit 2: Principles and Policies (1 Credit/ 15 Teaching Hours)**

Principles by Ranganathan, Drury, Dewey

Collection Development Policies – Concepts, Content, Formulation and Types

Planning for Collection Development

Committees, Staffing, Budgeting, Implementation and Evaluation

**Unit 3: Co-operative Collection development (1 Credit/ 15 Teaching Hours)**

Reasons, Major barrier and factors

Collection development through co-operation, Resource sharing

Dilemma of Selection, Basic requirements

Selection – Environment, Strategies, Criteria, Procedure, and tools

**UNIT 4: Collection Evaluation (1 Credit/ 15 Teaching Hours)**

Evaluation- Concept, Meaning, Scope

Methods of Evaluation- User Oriented, Collection Oriented

Stock Verification and Rectification

Weeding of Collection –Concepts, Goals and Methods

**Knowledge Management**

**Unit 1: Introduction to knowledge Management (1 Credit/ 15 Teaching Hours)**

Concepts, Definitions and Purpose of KM

Needs and Scope, Historical Development

Role of KM, Impact on Society

Knowledge Management and Document Management.

**Unit 2: Knowledge Management Approaches (1 Credit/ 15 Teaching Hours)**

Mechanistic Approach

Cultural / Behaviouristic Approach

Systematic Approach

Process and Practice Approach

**Unit 3: Information Technology and Knowledge Management (1 Credit/ 15 Teaching Hours)**

Knowledge Engineering

Knowledge Networking: Role of Information Professionals in Knowledge Management

Knowledge Workers: their legal and ethical issues

Technology and Knowledge Workers

**Unit 4: Knowledge Creation, Transfer and Sharing (1 Credit/ 15 Teaching Hours)**

Knowledge Classification, Knowledge creation concept, Knowledge creation process, Nonaka‟s Model

Knowledge Architecture: People Core and technical Core

Definition, Needs & Purpose; Knowledge vision & focus; Mentors & Social Networks; Prerequisites for transfer; Transfer Strategies; transfer protocols; knowledge in e-world

Knowledge Management Systems: Decision Support System- Artificial Intelligence.

**Information Literacy**

**Unit 1: Information Literacy (1 Credit/ 15 Teaching Hours)**

Meaning, Definition, Concept, Need and Objectives

Areas of Information Literacy

Role of Institution in Information Literacy

Partners of Information Literacy

**Unit 2: Types & Application of Information Literacy in Library and Information Centres (1 Credit/ 15 Teaching Hours)**

Technology Literacy, Media Literacy, Digital and Computer Literacy etc.

Information Literacy for Users

Information Literacy for Professionals

Information Literacy for Research and Development

**Unit 3: Models of Information Literacy in the Library Context (1 Credit/ 15 Teaching Hours)**

The Big6, The SCONUL Seven Pillars of Information Skills Model REACTS, The Digital information Fluency model (21CIF), The ANZIL Frame Work

**Unit 4: Trends of Information Literacy & Guidelines and Standards for Information Literacy Programmes (1 Credit/ 15 Teaching Hours)**

Web based Information Literacy System

OPAC Information Literacy System

Life Long Learning System

UNESCO Information Literacy Indicators.

ALA and ACRL

Standards in Information Literacy (ACRL Information literacy Competency Standards for higher Education)

Information Literacy Instructions in Academic Libraries

Literacy

**Community Information Service**

**Unit1: Understanding Community (1 Credit/ 15 Teaching Hours)**

Community-Concept, Meaning and scope

Specific group of communities

Needs of the Communities

Meeting Community Needs

**Unit 2: Community Information (1 Credit/ 15 Teaching Hours)**

Origin, Meaning, Definition and Scope

Need for Community Information

Information Delivery Mechanisms

Role of Library and Information Systems

**Unit3: Community Information Services (1 Credit/ 15 Teaching Hours)**

Meaning, Concepts, Need

Types, Scope, Nature

Perspectives in India, UK and USA

Services of Library and Information Systems

**Unit 4: Services for the Targeted Community (1 Credit/ 15 Teaching Hours)**

Understanding the Target groups

Assessing their Information Needs

Building Capacity, Skills and Competency

Services for the Specific Groups:

Rural Urban and Metropolitan Communities

Industrial, Business Communities

Academic, Research, Institutional and R & D Communities

Physically/Mentally Disadvantaged Communities

Children, Women and Senior Citizens

MIZORAM UNIVERSITY

**MASTER OF LIBRARY & INFORMATION SCIENCE (MLIS)**

FOUNDATION OF LIBRARIANSHIP

**Unit 1: Libraries- Concepts, Types, their Role and Development**

- Types of Libraries: Features and Functions, Five Laws of Library Science

- Growth &Development of Libraries in UK, USA and India

- Library Extension Services

- Library Legislation, Press and Registration of Books Act, Delivery of Books and Newspapers Act

**Unit 2: Professional Associations and Organizations**

- Professional Ethics in Librarianship

- Professional Associations: IFLA, ILA, IASLIC, SLA

- Information and Documentation Organizations: UNESCO, NISCAIR, DESIDOC, NASSDOC

FOUNDATION OF INFORMATION SCIENCE

**Unit 1: Information and Communication**

- Data, Information and Knowledge: Conceptual Difference

- Information Transfer Cycle, Information as Resource

- Communication: Channels, Media, Models and Barriers

- Information Society and National Information Policy

**Unit 2: Library and Information Users’**

- Information Users’: Types and Characteristics

- Information Needs, Information Seeking Behaviour Models

- User Education & User Study

- Electronic/Digital Literacy

**PERSONALITY DEVELOPMENT & COMMUNICATION SKILLS**

**Unit 1: Personality and its Characteristics**

- Personality Types, Traits and Characteristics

- Social, Soft and Influencing Skill Development

- Attitude, Appearance, Time and Stress Management Skill

**Unit 2: Communication Skill**

- Professional Communication Skills (Verbal, Non-Verbal & Written)

- Communication –Understanding the Audience, Presentation, Body Language, Interpersonal Skills and ability to listening Skill

- Technical Communication Skills and Editorial Tools

**Unit 3: Marketing Skills & Public Relations**

- Marketing Planning and Strategy

- Publicity and Promotion

- Public Relations and Liasoning with Library Authority and Patrons

**Unit 4: Leadership and Vision**

- Organizational Ability, Team Leadership and Problem Solving

- Project Management, Annual Plan, Five-Year & Perspective Plan, Disaster Management, Conflict and Crisis Management

- Visionary and Futuristic Approach, Preparation of Vision Document

- Negotiation Skills & Strategies

**ORGANISATION OF KNOWLEDGE – CLASSIFICATION THEORY**

**Unit 1: Knowledge Organization**

- Universe of Knowledge/Subjects: Nature and Attributes

- Modes of Formation of Subjects

- Knowledge Classification and Library Classification; Static & Dynamic Theories of Classification

**Unit 2: Classification Schemes**

- Species of Library Classification Schemes

- Salient Features of DDC, UDC, and CC

- Mapping of Subjects in DDC, UDC and CC

**Unit 3: Library Classification Theory**

- Definition, Need and Purpose of Classification

- Planes, Canons, Principles, Fundamental Categories, Postulates, Facet Analysis and Facet Sequence

- Phase Relation, Common Isolates, Devices, Mnemonics

**Unit 4: Notational Techniques and Recent Trends**

- Notation: Definition, Types, Functions, Qualities and Techniques

- Design and Development of Classification Schedules

- Recent Trends in Library Classification

**ORGANISATION OF KNOWLEDGE – CLASSIFICATION PRACTICE**

1. Assigning Class Numbers representing Simple, Compound, Complex Subjects according to DDC (Latest available edition)
2. (B) Viva Voce

BASICS OF INFORMATION AND COMMUNICATION TECHNOLOGY

**Unit 1: Basics of IT**

- IT: Definition, Scope & Components (Hardware & Software)

- Generations of Computers

- Storage Devices, Input & Output Devices, Memory

**Unit 2: Operating Systems & Programming Languages**

- Operating Systems: Types and Functions

- Study of MS-DOS, LINUX and Windows Operating Systems

- Introduction to Programming Languages

**Unit 3: Communication Technology**

- Tele-communication: Transmission Media, ISDN, Multiplexing, Switching Technique

- Networking: Topology and Types of Network, Standards & Protocols

- Network Models (OSI), Networking Devices

**Unit 4: Database Management System**

- Definition, Objectives & Functions

- Types and Elements of DBMS

- Database Structure and Architecture

ICT PRACTICAL

**Unit 1: Hands on experience of Windows Operating System**

**Unit 2: Hands on experience of Linux Operating System**

**Unit 3: Hands on experience of Application Software**

- MS-Word

- MS-Excel

- MS-Power Point

INTRODUCTION TO INFORMATION SOURCES

**Unit 1: Information Sources**

- Documentary and Non-Documentary Sources (Human & Institutional)

- Reference Sources: Categories, Characteristics and Usefulness

- Evaluation of Reference Sources: Print and Electronic

**Unit 2: Electronic Sources of Information**

- e-Documents, OPAC, Web-OPAC

- Subject Gateways/Portals, Bibliographical Sources, Full text Databases, Bulletin Boards, Discussion Groups/Forums

- Open Access Resources, List Serves, Social Networking Sites

INTRODUCTION TO INFORMATION SERVICES

**Unit 1: Information Services**

- Information Services: Definition, Scope, Need and Functions

- Types of Information Services: Reference Service, Referral Service, Bibliographic Service, Translation Service, Indexing & Abstracting Services, Reprographic Service

- CAS/Alerting Service, SDI, DDS

**Unit 2: Internet based Information Services**

- Library 2.0: Concepts, Characteristics & Components

- Synchronous Communication & Content Delivery: Instant Messaging, RSS

Feeds, Streaming Media, Podcasts, Vodcasts, SMS Enquiry Service

- Collaborative Publishing Tools: Blogs & Wikis

- Collaborative Service Platforms: Social Networks, Tagging, Social Bookmarking

MANAGEMENT OF LIBRARY & INFORMATION CENTRES

**Unit 1: Management: Concept and Principles**

- Principles of Scientific Management in Libraries and Information Centers

- Elements of Management Process (POSDCORB)

- Total Quality Management, Change Management, Disaster Management, Crisis Management, Marketing of Library & Information Services

- Project Management- PERT/CPM, SWOT Analysis, MIS, DSS

- Library Committee- Types and Functions

**Unit 2: Physical Resource Management and Library Operations**

- Library Building: Site, Selection, Planning

- Furniture, Fittings and Equipments: Standards and Specifications

- System Analysis and Design in Library Operations

- Collection Development and Management – Acquisition, Maintenance, Stock Verification, Weeding out Policy and Procedures

- Preservation and Conservation

**Unit 3: Human Resource Management**

- Organizational Structure

- Job Description and Analysis: Job – Evaluation

- Inter – Personal Relations

- Recruitment Procedures

- Motivation: Group Dynamics

- Training and Development

- Performance Appraisal

**Unit 4: Financial Resource Management**

- Resource Mobilization and Outsourcing

- Budgeting, Accounting and Auditing

- Budgetary Control

**ORGANISATION OF KNOWLEDGE – CATALOGUING THEORY**

**Unit 1: Cataloguing Principles**

- Catalogue: Definition, Objectives, Functions

- Types of Catalogue and Physical Forms of Catalogue

- Principles of Cataloguing: Ranganathan’s Cannon, Paris Principles

- Introduction to Catalogue Codes: CCC, AACR-IIR

**Unit 2:Entry Elements, Filing Rules & Subject Headings**

- Kinds of Entries and their Elements of Description

- Elements of Bibliographic Description of Non-Book Material (AACR-IIR)

- Rules for Choice and Rendering of Headings in AACR –IIR

- Subject Heading Lists: Sears List & LCSH

**Unit 3: Standards of Bibliographic Description**

- ISBD, FRAD (Functional Requirements for Authorized Description), GARR

(Guidelines for Authority Records and References), RDA (Resource Description and Access)

- Standards for Bibliographic Information Interchange and Communication- ISO 2709, Z39.50, Z39.71

- ISBN & ISSN

**Unit 4: Bibliographic Record Formats& Other Aspects**

- Bibliographic Records Format- MARC 21, UNIMARC, CCF

- Cataloguing of E-Resources- Metadata Standards (Dublin Core)

- Derivatives of Cataloguing (Copy Cataloguing)

**ORGANISATION OF KNOWLEDGE – CATALOGUING PRACTICE**

(A)

Preparation of Main and Added Entries of Documents according to AACR – IIR (Latest edition) having the following items

• Single Responsibility and Shared Responsibility, Mixed Responsibility

• Corporate Author, Continuing Resources (Serials), Pseudonyms and Anonymous works

• Classics, Non-Book Materials (Cartographic Materials & e-resources)

• Assigning Subject Heading to Documents according to Sears List of Subject Heading (Latest edition)

**INFORMATION SOURCES & SERVICES – PRACTICE**

The Candidates are required to submit a report on:

- Evaluation of Reference Sources: Print and Electronic

- OPAC/Web OPAC Search Strategy

- Indexing & Abstracting Records

- Current Awareness List

- Bibliography Compilation

COMMUNITY INFORMATION SERVICE

**Unit 1: Basics of Community Information**

- Community Information: Definition, Origin and Scope

- Need for and Sources of Community Information

- Role of Libraries in Dissemination of Community Information

**Unit 2: Community Information Services**

- Community Information Services : Meaning, Types and Target Users

- Community Information Centres: Planning and Role of Information Services

- Community Information Services to Specific Communities

a) Rural, Urban and Metropolitan Communities

b) Industrial, Business Communities

c) Academic, Research, Institutional and R & D Communities

d) Physically/Mentally Disadvantaged Communities

e) Children, Women and Senior Citizens

- Community Information Services in India, UK and USA

**INFORMATION RETRIEVAL SYSTEMS**

**Unit 1: Basics of Information Retrieval Systems**

- Definition, Components and Types of ISAR Systems

- Elements of File Organisation

- Artificial Intelligence and Expert System

- Information Retrieval Models

**Unit 2: Subject Representation and Indexing Languages**

- Alphabetical Subject Representation

- Contributions of Cutter, Kaiser, Ranganathan, Farradane and Coates

- Characteristics of Indexing Languages

- Vocabulary Control-List of Subject Headings, Thesaurus and

Thesauro facet, Classaurus

**Unit 3: Indexing Systems and Techniques**

- Assigned Indexing vs Derived Indexing

- Assigned Indexing Systems: Pre-Coordinate (PRECIS, POPSI and Chain Indexing) and Post-Coordinate Indexing System (Uniterm Index System)

- Derived Indexing Systems: Title based (KWIC, KWOC and KWAC), Citation based(SCI, SSCI, etc.) and Full-Text (STAIRS, LEXIS-NEXIS, etc.)

- Automatic Indexing: COMPass

**Unit 4: Information Searching and Evaluation**

- Search Methods and Search Strategy, Boolean Search

- Information Searching in different Media: Print and Electronic

- Need and Parameters of Evaluation

- Retrieval Performance: Recall and Precision

**ICT APPLICATION IN LIBRARIES – THEORY**

**Unit 1: Library Automation**

- Purpose, Planning and Implementation

- Library Automation Software: Types and Features

- Open Source Library Software: Koha, Greenstone &D-Space

- Automation of Housekeeping Operations: Acquisition, Cataloguing, Circulation, Serials Control

**Unit 2: Automated Services**

- Electronic Reference Services

- Bibliographic and Database Search Services

- CAS/SDI in Automated Environment

- Electronic Document Delivery Service

- Library 2.0

**Unit 3: Library Networks and Consortia**

- Objectives, scope and characteristics

- Major Library Networks: INFLIBNET, DELNET, OCLC

- Library Consortia: UGC Infonet, INDEST-AICTE, National Knowledge Resource Consortium

**Unit 4: Library Security Technology**

- Barcode

- RFID

- CCTV, Biometrics, Smartcard

**ICT APPLICATION IN LIBRARIES – PRACTICE**

**Unit 1: Hands-on experience on Library Automation Software**

- Integrated Library Software: Koha / SOUL

**Unit 2: Hands-on experience on Website Designing**

- HTML / Dreamweaver

ACADEMIC LIBRARY SYSTEM

**Unit 1: Academic Library: Functions and Services**

- Role of Academic Library in Higher Education

- Academic Library Services

- Academic Library Management

- Role of UGC for Academic Library Development

**Unit 2: Resource Management**

- Physical Resources including ICT Infrastructure

- Human Resource Development

- Financial Resource Management

**Unit 3: Collection Development**

- Collection Development Policy, Weeding out Policy

- Problems in Collection Development

- Role of Library Committee in Collection Development

**Unit 4: Staff Development and Continuing Education**

- Staffing Norms and Standards

- Continuing Education Program for Academic Libraries

- Personnel Management

PUBLIC LIBRARY SYSTEM

**Unit 1: Public Library Development**

- Public Library: Societal and National Development

- UNESCO Contribution for Public Library Development

- Administration of Public Libraries

- National Agencies for Public Library Development

- Library Legislation

**Unit 2: Public Library Services**

- Library Services: Types

- Public Library as Knowledge Centers

- Changing Dimensions of Public Library Services

- Evaluation of Public Library Services

**Unit 3: Public Library: Resource Development**

- Resource Mobilization in Public Library

- Public Library Finance

- Information Resource Development for Public Libraries

- Human Resource Development in Public Libraries

**Unit 4: Public Libraries: Trends and Development**

- ICT Application in Public Libraries

- Resource Sharing and Networking

- Changing Scenario of Public Libraries in India, UK & USA

- Web based Public Library Services

PRESERVATION & CONSERVATION OF LIBRARY MATERIALS

**Unit 1: Basics of Preservation and Conservation: Overview**

- Preservation and Conservation: Historical Development, Need and Purpose

- Preservation of Print Materials: Books, Periodicals, Pamphlets

- Digital Preservation

**Unit 2: Preservation of Non-Print Materials**

- Palm Leaves

- Manuscripts

- Films

- Floppies and Disks

**Unit 3: Hazards and Control Measures to Library Materials**

- Environmental Factor (Temperature, Humidity, Water, Light, Air Pollution, Smoke, Dust, etc)

- Chemical Factors

- Biological Factors

**Unit 4: Binding**

- Types of Binding of Library Materials

- Binding Material and their Varieties

- Binding Process

- Standards for Library Binding

**INFORMATION RESOURCE DEVELOPMENT**

**Unit 1: Types of Information Resources**

- Documentary (Primary, Secondary & Tertiary)

- Non-Documentary

- E-Resources

**Unit 2: Book Selection Principles**

**- Drury’s Principle**

**- Dewey’s Principle**

**- McColvin’s Principle**

**- Ranganathan’s Principle**

**Unit 3: Selection Tools**

- Current List

- Bibliographies

- Library Catalogue

- Books in Print

- Publishers’ Catalogue

- Directories

- WebOPAC (WorldCat)

- Websites

**Unit 4: Categories of Documents**

**- By Physical Characteristics**

**- By Information Characteristics**

**-** Books and Periodicals

**- Theses and Dissertations**

**- Govt. Publications**

**- Grey Literature**

**INTERNET AND ITS APPLICATIONS**

**Unit 1: Internet: An Overview**

- Internet: Introduction, Historical Development and Scope of Internet

- Internet Architecture: H/W & S/W Components, Client/Server Principle, Routers, Connection Types, ISP, Protocols, Uniform Resource Locator, IP Address

- Domain Name System

**Unit 2: Web Languages & Web Browsers**

- Web: Introduction, History and Functions

- Web Languages: HTML, XML, CSS, ASP, JavaScript, PHP

- Web Browsers: Internet Explorer, Mozilla Firefox, Google Chrome

**Unit 3: Intranet & Internet Security**

- Intranet: Components, Prerequisites and Services

- Extranet: Components, Prerequisites and Services

- Internet Security: Types of Security, Firewalls, Anti-Virus, Anti-Spyware

**Unit 4: Internet Tools & Services**

- Communication Tools: Email, Telnet, Discussion Groups

- Search Tools: Gopher, Veronica, Jughead, Archie, Search Engines

- Content Enriching Services: Blogs, Wikis, Social Community Websites

E-RESOURCES

**Unit 1: Types of e- Resources**

- E-books, E-journals, E-reports, ETD

- Access to E-Resources through Library Consortia (UGC-INFONET Digital Library Consortium, INDEST-AICTE, National Knowledge Resource Consortium)

- Open Educational Resources

**Unit 2: Web Resources**

- Science & Technology

- Humanities

- Social Sciences

- Evaluation of Web Resources

**INFORMATION SYSTEMS AND NETWORKS**

**Unit 1: Information Systems**

- Definition, Types and Characteristics

- Information Organizations and Systems

- Planning and Designing of Information System

- Evaluation of Information System

**Unit 2: National Information Systems**

- ENVIS

- BIS

- PIS

**Unit 3: Global Information Systems**

- AGRIS

- INIS

- INSPEC

- MEDLARS

**Unit 4: Networks**

- Resource Sharing and Networking – Objectives and Scope

- Features and Characteristics of Library Networks

- Data Networks – NICNET, ERNET, NKN

RESEARCH METHODOLOGY

**Unit 1: Research and Research Design**

- Concept, Meaning, Need and Process of Research

- Types of Research: Fundamental and Applied

- Research Design, Types of Research Design

- Designing Research Proposal

- Literature Search – Print, Non-Print and Electronic Sources

- Literature Review

**Unit 2: Research Methods**

- Scientific Method

- Historical Method

- Survey and Case Study Method

- Experimental Method

**Unit 3: Data Analysis and Interpretation**

- Data Collection Techniques: Questionnaire, Interview, Observation, Sampling and Delphi

- Presentation of Data-Tables, Charts and Graphs

- Interpretation of Data: Frequency Distribution, Measures of Central Tendency, Analysis of Time Series, Co-relation Studies and Analysis of Variance

- Use of Statistical Packages

**Unit 4: Bibliometric Methods and Report Writing**

- Bibiometric Studies: Meaning, Scope and Parameters

- Bibliometric Laws and their Applications

- Informetrics, Scientometrics and Webometrics

- Guidelines for and Preparation of Writing Research Report (Thesis and Dissertation)

**CONTENT MANAGEMENT AND DIGITAL LIBRARY – THEORY**

**Unit 1: Content Management & Digitization**

- Content Development: Concept; Content Creation & Organization

- E-Content Development Strategies

- Virtual Learning Environment

- Digitization Process, Tools and File Formats

**Unit 2: Digital Library Concepts**

- Digital Library & Institutional Repository: Concepts; Digital Library Initiatives (National & International)

- Digital Library Software(s)

- Digital Library Creation using D-Space

**CONTENT MANAGEMENT AND DIGITAL LIBRARY – PRACTICE**

**Unit 1: Content Management & Digitization Practice**

- Hands on practice of Content Management Software using Joomla

- Hands on practice of Scanner, Digital Camera & OCR

**Unit 2: Digital Library Practice**

- Hands on practice of Digital Library creation using D-Space / Greenstone

- Creation of Communities & Collection, Submission Process

INTELLECTUAL PROPERTY RIGHTS

**Unit 1: Intellectual Property and Rights**

- IP: Concept, Genesis and Development

- Categories of IP

- Enforcement of Intellectual Property Rights& Role of WIPO

- IPR Acts and its Application in Electronic Environment

- Emerging Issues in Intellectual Property

**Unit 2: Copyright**

- Copyright: Meaning and Scope

- Rights to Copyright Owner

- Licensing of Copyright

- Copyright of Electronic Resources

- Copyright Laws and Related Issues

**Unit 3: Patents**

- Concept and Scope

- Patent Laws in India & Abroad

- Protection of Inventions

**Unit 4: Copyright& Patent Violation and Infringement**

- India

- USA

- UK

KNOWLEDGE MANAGEMENT

**1: Basics of Knowledge Management**

- Concept of Knowledge

- Types of Knowledge

a) Explicit Knowledge

b) Implicit Knowledge

- Concept and Scope of Knowledge Management

- Knowledge Management Cycle

**Unit 2: Knowledge Management: Creation & Tools**

- Knowledge Creation, Access, Transfer and Sharing

- Knowledge Tools

- Knowledge Networks

- Knowledge in Decision Making

**Unit 3: Pre-requisites of Knowledge Management**

- Sharing of Expertise

- Knowledge Mapping

- Knowledge Worker

**Unit 4: Trends and Challenges of Knowledge Management**

- KM Initiatives in Indian Organization

- Software for Knowledge Management

- Pioneers in Knowledge Management

- Advances in Knowledge Management

INFORMATION LITERACY

**Unit 1: Emergence of Information Literacy**

- Information Society and Information Literacy

- Information Literacy: Definition, Models and Standards

- Information Literacy: Strategic Plan

- Information Literacy and Lifelong Learning

**Unit 2: ICT and Media Literacy**

- Computer Literacy and E-Literacy

- Digital Literacy

- Media Literacy

- Information Literacy and Bridging the Digital Divide

**Unit 3: Information Literacy and Libraries**

- School, College and University Libraries

- Public Libraries

- Special Libraries

- Information Literacy and LIS Education

**Unit 4: Policy and Advocacy**

- Information Literacy: Initiatives and Forms in USA, UK and Australia

- Policies, Guidelines and Standards: UNESCO, IFLA and ALA

- Information Literacy: Skills and Competencies

- Information Literacy: Best Practices

**Ph.D Course Work**

Foundations of Research

- Meaning and definition, concepts, nature and objectives

- Types of research, Ethics in research

- Research Areas in LIS, Current Developments, Role of research in the development of scholarship

**Unit-II Research Design and Methods**

- Selection of a problem for research- Mode of selection, Sources of problems, Process of identification, Criteria of selection, Formulation of the selected problem

- Research Design, Hypothesis,

- Literature search- print, non-print and electronic sources

- Research proposal

- Types of research: Qualitative and quantitative method of LIS research- Scientific, Historical, Descriptive, Survey, Observation, Experimental, Case Study, Delphi Techniques.

- Bibliometrics, Informatics, Scientometrics, Webometrics,

**Unit-III Data Collection, Analysis and Interpretation**

- Data collection: Questionnaire, Interview, Observation

- Sampling techniques, sample design or choice of sampling techniques, sample size, sampling and non-sampling errors.

- Presentation of Data- Tables, Graphs, Charts

- Interpretation of Data- Frequency Distribution, Measures of central tendency, Mean, Median &

Mode, Time Series, Co-relation studies, ANOVA, Regression Analysis

- Use of statistical packages

**Unit-IV Research Reporting**

- Research reporting: Organisation of report, Structure, Style, Contents, Guidelines of Research Reports, Style Manual – Chicago – MLA-APA etc. Automatic Citation Builder, Endnote, Ref. work. and Methods of Research Evaluation

- Reference Management Software

RESEARCH PUBLICATION & ETHICS (RPE)

**A-Theory**

**RPE 01: PHILOSOPHY AND ETHICS (3hrs)**

1. Introduction to Philosophy: definition, nature and scope, concept, branches

2. Ethics: Definition, moral philosophy, nature of moral judgements and reactions.

**RPE 02: SCIENTIFIC CONDUCT (5hrs.)**

1. Ethics with respect to science and research

2. Intellectual honesty and research integrity

3. Scientific misconducts: Falsification, Fabrication and Plagiarism (FFP)

4. Redundant publications: duplicate and overlapping publications, salami slicing

5. Selective reporting and misrepresentation of data

RPE 03: PUBLICATION ETHICS (7 hrs.)

1. Publication ethics: definition, introduction and importance

2. Best practices/standards setting initiatives and guidelines: COPE, WAME etc.

3. Conflicts of interest

4. Publication misconduct: Definition, concept, problems that lead to unethical behavior and vice versa, types

5. Violation of publication ethics, authorship and contributorship

6. Identification of publication misconduct, complaints and appeals

7. Predatory publishers and journals

**B- Practice**

**RPE 04: OPEN ACCESS PUBLISHING (4hrs.)**

1. Open access publications and initiatives

2. SHERPA/RoMEO online resource to check publisher copyright & self-archiving policies

3. Software tool to identify predatory publications developed by SPPU

4. Journal finder/journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggester, etc.

**RPE05: PUBLICATION MISCONDUCT (4 hrs.)**

**A. Group Discussions (2 hrs.)**

1. Subject specific ethical issues, FFP, authorship

2. Conflicts of interest

3. Complaints and appeals: examples and fraud from India and abroad

**B. Software tools (2 hrs.)**

1. Use of plagiarism software like Turnitin, Urkund and other open source software tools

**RPE 06: DATABASES AND RESEARCH METRICS (7 hrs.)**

* **A. Databases (4hrs.)**

1. Indexing databases

2. Citation databases: Web of Science, Scopus etc.

**B. Research Metrics (3hrs.)**

1. Impact factor of journal as per Journal Citation Report, SNIP, SJR, IPP, Cite Score

2. Metrics: h-index, g index, i10 index, altmetrics

INFORMATION AND KNOWLEDGE SOCIETY: LIS PERSPECTIVE

**Unit -1 Information Society**

Information Society: Attributes, Characteristics, & Components

Information Infrastructures- National and Global

Information Economics, Economics of Information, Information as Economic Resource.

National Information Policy, Information Digital Literacy.

**Unit-II Knowledge Society**

Definition, Characteristics and Components.

Knowledge Economy and Knowledge Industry.

Knowledge Management, National Knowledge Commission.

Libraries as Gateways to Knowledge.

Towards a Knowledge Society and Role of Knowledge Professionals.

**Unit-III Digital Library Initiatives**

- Electronic Theses and Dissertations

- National Digital Library (MHRD)

- Inflibnet (e-soudhsindhu)

**Unit-IV Trends and Developments**

Role of Information in Planning, Decision Making, Innovations and National Developments.

Impact of Information and Knowledge Society on Education, Training and Research.

Conventional vs Web Based Learning, MOOC

Recent Trends and Developments in LIS Education and Research.

Impact of social media on Society and National Development

LIBRARY AND INFORMATION TECHNOLOGY MANAGEMENT

**Unit-I Trends and Developments in Library and Information Management**

Resource Management and Development: Human, Financial and E-Resources

Resource Mobilization and Outsourcing

Information Marketing

Disaster Management

Digital Information Resources Management

**Unit-II Library Networks and Consortia**

Networks and Networking: Types, Hardware/ Software Requirements, Network protocols, Network security

Data Networks and Library & Information Networks

Networked Based Library and Information Services

Library Consortia

Management of Library and Information Networks and Consortia

**Unit-III Digitization**

Digitization: Need, Methods and Equipment, Meta Data, Standards of Meta Data

Digital Library: Components, Digital Library Initiatives in India, Open Access Initiative, Open Source Philosophy

**Unit-IV Web and Social Media Applications in LIS**

- Web 2.0, Blog, RSS Feed, Podcasting, Social Networking

- Cloud Computing, Digital Reference Tools

**NORTH EASTERN HILL UNIVERISTY**

**(MLISc.)**

**FOUNDATIONS OF LIBRARY AND INFORMATION SCIENCE**

***Objective****: This paper aims at familiarizing the students with the basic concepts, systems and services of libraries and information centres.*

**Unit I**

Nature and Scope of Library and Information Science; Types, Activities and Services of Libraries: Public, Academic, Special and National Libraries; Five Laws of Library Science and their Implications; Concept and Types of Information Systems: INIS, AGRIS, ENVIS, NASSDOC, DESIDOC, NISCAIR, INFLIBNET.

**Unit II**

Information Society: Concept and Features; Information Economics and Economics of Information; Information and National Development; Right to Information (RTI); Information Literacy: Concept and Models.

**Unit III**

Library Legislation in India with Special Reference to North East India; Library Extension Services: Concept and forms; Community Information Services: Concept and Forms; Intellectual Property Rights (IPR)- Concept and Types.

**Unit IV**

Library Profession- Characteristics and Ethics; Professional Associations in Library and Information Science and their Activities: IFLA, ILA, ASLIB, IATLIS, etc. Library and Information Activities of Professional Organizations: UNESCO, RRRLF, National Knowledge Commission (NKC).

**KNOWLEDGE ORGANISATION-I (Theory)**

***Objective*** *: To introduce the structure and features of Universe of Knowledge and to understand the principles and practices of document description.*

**(a) Classification**

**Unit I**

Library Classification: need, purpose and principles; Universe of Knowledge and formation of subjects; structure of Dewey Decimal Classification and Colon Classification schemes.

**Unit II**

Idea plane: canons, principles and postulates; fundamental categories.

Verbal plane: canons and principles.

**(b) Cataloguing**

**Unit III**

Library cataloguing: need, purpose and principles; forms and types of catalogue; kinds of entries and elements of description.

**Unit IV**

Subject catalogue: Sears List of Subject Heading (SLSH), Library of Congress Subject Heading (LCSH), chain indexing. Structure of Anglo American Cataloguing Rules II and Classified Cataloguing Code

**KNOWLEDGE ORGANISATION-I (Practice)**

***Objectives****: To develop skills in subject analysis and proficiency in using standard schemes of classification and subject cataloguing ; to develop ability in applying methods and tools of content description.*

**(A) Classification**

Classification of documents by Dewey Decimal Classification (available edition) and Colon classification (available edition) in the following graded steps:

**Unit I**

Classification of documents having “simple subjects”

**Unit II**

Classification of documents having “compound subjects”

**(B) Cataloguing**

Practical cataloguing of books according to Anglo-American Cataloguing Rules -1988 edition with amendments 1999, 2002. Assigning subject heading using Sears List of Subject Heading in the following graded steps:

**Unit III**

Works of personal authorship; Works of shared authorship; Works of Mixed responsibility.

**Unit IV**

Anonymous works; Works of corporate authorship and Analytical.

**INFORMATION SOURCES AND SERVICES**

***Objective : –*** *This paper, helps identify various information users, their information needs and information seeking behavior and the sources of information best suited for each group.*

**Unit I**

Information– Concepts; Life Cycle; Characteristics; Compilation and Dissemination;

Primary, Secondary and Tertiary Sources (Print and Non-Print Formats) –Concepts; Characteristics and Uses

**Unit II**

Reference Service – Concepts; Scope; Modes; Enquiry Techniques; Information Searching Techniques From Print and Electronic Sources

Referral Services; Document Delivery Services; Translation Services –Concepts; Scope and Usefulness

Qualifications, Qualities, Duties and Role of Reference Staff

**Unit III**

Information Needs and Information Seeking Behaviour of Users – History; Concepts and Characteristics

Models of Information Seeking Behaviour – Models by Wilson; Dervin; Kulhthau and Ellis

Information Sources and Services in the Humanities; Social Sciences; Sciences; Business and Law

**Unit IV**

User Studies – History; Concepts; Goals; Objectives; Methodology and Case Studies User Education – Concepts; Goals; Objectives; Role and Techniques

**FOUNDATION OF COMPUTER APPLICATIONS**

**Unit I:**

Computer Applications: introduction, development, and generations; Information Technology: introduction and scope; development; Computer generations Computer Components: Hardware and Software, Input and Output Devices; Storage devices; Number system: Binary number system, Binary codes, ASCII and Unicode; data types

**Unit II:**

Operating System: concept, types and functions: DOS, LINUX, and Windows File formats: types, nature and characteristics Office Packages: Word Processor, Spreadsheet, Presentation Tools, Ms-Access Practical: Operating System, Word Processor, Spreadsheet, Presentation Tools, Ms-Access

**LIBRARY SYSTEM ANALYSIS AND DESIGN**

**Unit I:**

Information Systems Definitions; Types of Systems: Transaction Processing Systems, Management Information Systems, and Decision Support Systems; System Development Life Cycle; Systems Development Process: Traditional Waterfall, Prototyping, Computer-Aided Software Engineering (CASE), Joint Application Design (JAD), Rapid Application Development (RAD), Agile Methodologies and eXtreme Programming.

**Unit II:**

Systems Acquisition; Outsourcing; Sources of Software; Off-the-Shelf Software Selection Criteria; Request for Proposal (RFP) and Annual Maintenance Cost (AMC); Initiating and Planning: Process, Elements, Deliverables and Outcomes; Feasibility Assessment: Economic Feasibility, Technical Feasibility and Other Feasibility Concerns; Baseline Project Plan.

**Unit III:**

Requirements Determination: Traditional, Contemporary and Radical Methods; Requirement Structuring: Data Flow Diagram, Use Case, Structured English, Decision Tables and Decision Tress; Basic Database Design Process; Forms and Reports: Design, Formats, and Usability Assessment; Interfaces and Dialogues: Interaction Methods and Devices, Designing Interfaces, Designing Dialogues and Graphical Interface Design Issues.

**Unit IV:**

System Implementation: Coding, Testing, Installation, System Documentation, User Training and Support; System Maintenance: Types, Cost and Managing Maintenance; System Analyst: Role, Responsibilities and Required Skills; Security and Ethics.

**KNOWLEDGE ORGANISATION-II (Theory)**

**Unit I**

Notational plane: qualities, types; Canons and Mnemonics; Phase relation.

**Unit II**

Devices: Subject, Chronological, Geographical, Super imposition, Classic; Common isolates; Call number and collection numbers; automated library classification.

**(b) Cataloguing**

**Unit III**

Shared cataloguing: principles and methods; Union Catalogue; OCLC; OPACS; ISBN, ISSN; Resource Description and Access (RDA).

**Unit IV**

Bibliographic formats: concept, need and purpose; Types: CCF, MARC 21, UNIMARC; Citation: concept, need and purpose; Online citation tools; Authority files.

**KNOWLEDGE ORGANISATION-II (Practice)**

**(a) Classification**

Classification of documents by Dewey Decimal Classification and Colon classification in the following graded steps:

**Unit I**

Classification of documents having “common sub divisions and other auxiliaries”

**Unit II**

Classification of documents having “complex subjects”

Classification of documents having “complexities of mixed nature”

**(a) Cataloguing**

Practical cataloguing of books according to Anglo-American Cataloguing Rules -1988 edition with amendments 1999, 2002. Assigning subject heading using Sears List of Subject Heading in the following graded steps:

**Unit III**

Continuous resources (serials); Analysis

**Unit IV**

Non-book materials (cartographic materials, thesis, audio-visual materials, etc.) and e-resources.

**LIBRARY SOFTWARE (Theory & Practice)**

***Objective:*** *Is to train the students on Open Source Library Management Software and*

*Institutional Repository Software*

**(Theory)**

**Unit I**

Open Source Software (OSS): Overview, Philosophy and Characteristics; Overview of Commercial Software, Free Software and Freeware; Standards: National Information Standards Organisation (NISO) and The Digital Library Federation (DLF); Metadata: Dublin Core, MARC, Resource Description and Access (RDA); Open Archives Initiative (OAI-PMH); Licensing Policy: GNU, Open Source Licenses and Free Software.

**Unit II**

Open Source Operating System (e.g., Linux) Hosting: Client, Server; Library Management Software: Proprietary and OSS; Introduction to proprietary software: **SOUL**, Library Management Software: **Koha**, Repository software: **DSpace**

**(Practice)**

**Unit III**

Practical’s on Open Source Library Management Software (e.g., Koha): Introduction, Features, Architecture, Standards, Installation, Customization, and Use

**Unit IV**

Practical’s on Open Source Repository Software (e.g., DSpace): Introduction, Features, Architecture, Modules, Installation, Customisation and Use

**LIBRARY HOUSEKEEPING OPERATIONS**

**Unit I- LIBRARY HOUSEKEEPING OPERATIONS (THEORY)**

Overview of NEHU Central Library Operations: Acquisition; Technical; Circulation; Periodical; Reference; Documentation and Maintenance

**Unit II –LIBRARY HOUSEKEEPING OPERATIONS (PRACTICE)**

**Job Diary** –A Report on observation of the NEHU Central Library operations is to be submitted to the Department for evaluation by an external examiner. A viva voce on the observations and the report will also be conducted by the Department.

**Study Tour Diary** - A Report on operations of Libraries visited during the study tour is to be submitted to the Department for evaluation by an external examiner. A viva voce on observations and the report will also be conducted by the Department.

**INFORMATION RETRIEVAL**

**Unit I**

Information Retrieval (IR): Concept, Nature; Content Analysis: Concept and Types; Mapping the Information Content

**Unit II**

Indexing languages; Index construction: Concepts, Theory: Rationalist theories of Indexing; Historicist , Hermeneutical Theories of indexing Pragmatic and Critical Theories of indexing, Methods, Vocabulary Control; Subject Indexing: Sear’s List and LCSH, Thesaurus, Thesaurofacet, Classaurus; Pre-coordinate Indexing System, Chain indexing, PRECIS -Preserved Context Index System, POPSI – Postulate based Permuted Subject Indexing , SLIC – Selective Listing in Combination; Post-coordinate indexing system ,Uniterm Indexing System, Title derived Indexing System, Automatic Indexing, COMPASS.

**Unit III**

Types of search: Boolean, Proximity, Fuzzy, Iterative Search Techniques; Structure for Dictionaries, Querying, Wildcard Queries, Interpretation, Full Text Search, Spelling Correction, Phonetic Correction, Search engines, Web Search Basics, Z39.50, Metadata in IR

**Unit IV**

Design and Evaluation of Information Retrieval System (IRS), IR Model: Probabilistic Retrieval Model, Language Models, XML Retrieval; Text classification, Naive Bayes Vector Space Classification, Clustering, Web Crawling, and Link Analysis. Emerging Trends in IR: Artificial Intelligence, Expert System, Text Summarization, Text Compression and Optical character recognition (OCR)

**RESEARCH METHODLOGY**

**Objective –** *To help develop an understanding of the concepts and methods in research*

**Unit I**

Research- meaning, need and significance; Types of Research**-** descriptive, analytical, applied, fundamental, quantitative, qualitative, conceptual, empirical, interdisciplinary, multidisciplinary and collaborative; Identification of Research Problem**-** concept, need and process of selecting the problem; Variables; Hypothesis**-** meaning, testing of hypotheses and procedure for hypothesis testing; Designing a Research Proposal**-** components and procedure.

**Unit II**

Methods: Historical Method; Scientific Method, Experimental Method; Descriptive Method; Survey Method and Case Study. Data collection tools and techniques: Questionnaire; Schedule; Interview; Observation, etc.

**Unit III**

Data Analysis and Interpretation: Descriptive Statistics-Measures of Central Tendency; Mean, Mode, Median; Tabulation and Generalisation; Measures of dispersion, variance and covariance; Standard Deviation Graphical presentation of data. Parametric and Non-Parametric test ;Statistical Packages.

**Unit IV**

Informatrics, Bibliometrics,Scientrometrics &Webometrics; Bibilometric Laws: Lotka’s,Bradford’s and Zipf’s Law; Citation Analysis, Co-citation Coupling and Bibliographic Coupling; Bibliographical Database.

**COLLECTION DEVELOPMENT**

**Unit I**

Collection Development – Concept; Goals and Methods

Principles of Collection Development – Principles by Ranganathan; Drury; Dewey; Library of Congress and American Library Association

Collection Development Policies – Concepts and Types

Planning for Collection Development – Committees; Staffing; Budgeting; Implementation and Evaluation

**Unit II**

Selection Tools – Types: Bibliographies; Publishers’ Catalogues and Book Reviews Evaluation of Selection Tools

Stock Verification and Rectification

Preservation of Collection (Print and Non-Print)– Concepts; Goals and Methods

**DATABASE MANAGEMENT SYSTEM**

**Unit I:**

Introduction, Characteristics and Advantages; Database Concepts: Data Models, Schemas and Instances; Database Architectures: Three Schema Architecture, Centralized and Client/Server; Data Independence; Database: Languages and Interfaces, Database System Environment; Classification of Database Management Systems; Phases of Database Design

**Unit II:**

Entity-Relationship (ER) Model: Entity Types, Entity Sets, Attributes and Keys; Relationships in ER Model: Relationship Types, Relationship Sets, Roles and Constraints; Naming Conventions and Design Issues; Enhanced Entity-Relationship (EER) Model: Subclasses, Superclasses and Inheritance; Constraints, Specialization and Generalization Hierarchies in EER

**Unit III:**

Data Abstraction, Knowledge Representation and Ontology Concepts; Relational Data Model: Concepts, Constraints and Schemas; Update Operations, Transactions and Constraint Violations; Relational Database Standard; Functional Dependencies; Normalization for Relational Databases; Relational Database Design

**Unit IV:**

Object-Oriented Databases Concepts: Object Identity, Object Structure and Type Constructors;

Encapsulation of Operations, Methods and Persistence; Types Class Hierarchies and Inheritance; Object Database Standards, Languages and Design; Object Relational and Extended Databases System; Emerging Database Technologies and Applications

**INFORMATION COMMUNICATION TECHNOLOGY**

**Unit I:**

Introduction to Communication Systems and Telecommunications; Data Communications: Components, Representation and Data Flow; Networks: Criteria, Physical Structures and Topologies; Network Categories: LAN, WAN, MAN and Internetwork; Protocols and Standards; Network Models: Layered Task Concept, Open System Interconnect (OSI) Model and TCP/IP

**Unit II:**

Data to Signal Conversion: Line coding, Block coding and Scrambling; Data Transmission Modes: Parallel and Serial; Multiplexing: Frequency Division Multiplexing (FDM) and Time Division Multiplexing (TDM); Spread Spectrum: Frequency Hopping Spread Spectrum (FHSS) and Direct Sequence Spread Spectrum (DSSS); Transmission Media: Wired and Wireless

**Unit III:**

Switching: Circuit-Switched, Datagram, and Virtual Circuit Network; IEEE Standards on Local Area Network; Wired Local Area Network: Standard, Bridged and Switched Ethernet; Wireless Local Area Network: Bluetooth Architecture and Layers; Connecting Devices: Passive/Active Hubs, Repeaters, Bridges, Switches (layer two & three), Routers, and Gateway; File Transfer Protocol (FTP) and Remote Logging

**Unit IV:**

Connectivity: PSTN, DSL and Lease line; Email: Architecture, User Agent, SMTP, POP, IMAP and Web Mail; WWW: Client, Server, URL and Cookies; Web Documents: Static, Dynamic and Active; HTTP: Transaction, Persistent/Non-persistent Connection and Proxy Server; Streaming Audio/Video using Web Server, Metafile and Media Server; Real-Time Interactive Audio/Video; VoIP (Voice over Internet Protocol)

**MANAGEMENT OF LIBRARY AND INFORMATION SYSTEMS**

**Unit I**

Management Concept, Functions and Principles; Schools of Management Thought: Classical, Scientific, Behavioural, Decision Theory, Contingency Approach, Systems Approach.

**Unit II**

Planning: Concept, Need and Levels; Management by Objectives (MBO); Decision Making. Total Quality Management (TQM); Change Management.

**Unit III**

Human Resource Management: Manpower Planning; Job Analysis, Job Description and Job Evaluation; Recruitment Procedures; Performance Appraisal; Leadership; Communication Process; Motivation; Organizational Manual; Annual Report.

**Unit IV**

Budgeting- Concept, Principles and Types; Resource Mobilisation for Libraries and Information Centres; Marketing of Information Products and Services. SWOT Analysis; Project Management.

**DIGITAL LIBRARY**

**Unit I:**

Definitions and Concepts: Digital Libraries and Institutional Repositories; Benefits and Limitations; Planning: Strategies and Implementation; Building: Acquisition, Management and Dissemination. Basic Concepts of Hybrid Libraries, Library Portals and Repositories; Institutional Repository: Planning, Content Submission and Acquisition.

**Unit II:**

Social Relevance: Human Development, Scholarly Archives, Preservation of Traditional Culture and Music. Legal Issues: Intellectual Property Rights, Copyrights in Digital Environments and Exceptions for Libraries; Legal Procedures: License Acquisition, Secondary License and Users Education. Digitization: Process, Purpose Localization, Selection Criteria and Prioritization.

**Unit III:**

Digital Formats: Textual and Non-textual; Character Encoding: Issues, Schemes and Standard; Mark-ups: Procedural, Presentational and Descriptive; Electronic Image: Resolution, Pixel and Color Encoding; Image Compression: Lossless and Lossy Techniques; Portable Document Format: Object types, features, application software, embedded images and true PDF; Document Conversion: Word to PDF/HTML/XML and XML to HTML/PDF.

**Unit IV:**

Infrastructural Requirements: Equipment, Software, Manpower and Costs; Workflow: Process, Document Management, Scanning, OCR (Optical Character Recognition) and Editing; Digitization for Preservation; Metadata: Types, Standards and Harvesting; Digital Library Website and Content: Visibility, Accessibility and Search-ability;

Greenstone Digital Library Software: Installation, User Interface, Collection Building, Creating, and Previewing.

**E- LEARNING AND CONTENT MANAGEMENT**

**SYSTEM**

**Unit I**

Open Source Software for Content Management System (CMS): MediaWiki, Joomla, Drupal, Zope; Wiki Hosting Services, Wiki Technologies in Libraries for Designing Subject Based Encyclopedias’; Subject directory/portal

**Unit II**

Open Source Software for Learning Management System (LMS): Moodle, ATutor, Claroline, Brihaspati (The Virtual Classroom). Courseware Management system: College.

**(Practice)**

**Unit III**

**Practicals on CMS (e.g., Joomla / Drupal)**

Installation and Customization:

 Basic Requirements

 Manual Installation

 Configuration Settings

 Publishing Content Using

**Unit VI:**

**Practicals on LMS (e.g., Moodle / ATutor)**

Installation and Customization

 Basic Requirements

 Manual Installation

 Configuration Settings.

**INFORMATION SOURCES AND SERVICES**

**Unit I- EVALUATION AND COMPILATION CRITERIA FOR**

**INFORMATION SOURCES AND SERVICES**

Evaluation Criteria for Reference Sources: Print and Electronic, Compilation Techniques: Bibliographies; Contents Lists; Indexes; Abstracts and Press Clippings

**Unit II – EVALUATION AND COMPILATION OF INFORMATION**

**SOURCES AND SERVICES**

Evaluation Report on Reference Sources: Print and Electronic, Compilation Report on Bibliographies; Contents Lists; Indexes; Abstracts and Press Clippings

**PONDICHERRY UNIVERSITY**

**M. Lib. I. Sc. + B. Lib. I. Sc.**

**Library, Communication and Society**

**COURSE OUTLINE**

**Unit 1: Information: Nature, Property and Scope** – Data, Information and Knowledge – Types of Libraries (including digital/electronic/virtual libraries) and their functions – Role of libraries in the development of a society – Information Theory – Information Science as a discipline – Five Laws of Library Science and their implications.

**Unit 2: Information Generation and Communication –** Information, Communication Process, Media and Diffusion – Communication Theories and Models, Channels and Barriers – Digital Information – Social Media.

**Unit 3: Library Policies Movement and Legislation –** Library movement in India, Indian Scenario – Factors, Principles, Statutory Provisions for various types of libraries, Information Policy, Copyright Act 1957, Delivery of Books and Newspapers Act 1956, Press and Registration Act, Intellectual Property Rights, Right to Information Act 2005.

**Unit 4: Information Profession and Professional Bodies** – Librarianship as a profession: Professional ethics – Professional Associations and their roles: ILA, IASLIC, IATLIS, CILIP, ALA, IFLA, and UNESCO. 15

**Unit 5: Information and Knowledge Society –** National Information Policy – Information Infrastructure: National and Global – Information Society – Knowledge Society – Knowledge Profession – Information Economy – WSIS.

**Reference and Information Sources**

**COURSE OUTLINE**

**Unit 1: Basics of Information Sources**: Documentary and non-documentary sources – characteristics, scope and value; non-print and electronic sources; categories of information sources – primary, secondary and tertiary.

**Unit 2: Types of Documentary Sources:** Primary Sources **–** Periodicals, Technical reports, Patents, Standards and Specifications, Theses and Dissertations, Conference proceedings, Trade literature both in print and electronic versions; Secondary Sources – Dictionaries, Encyclopedias, Yearbooks and Almanacs, Biographical sources, Bibliographies, Geographical sources, Current sources, Statistical information sources, Handbooks and Manuals, indexing and abstracting sources, news summaries both in print and electronic versions. Tertiary Sources – Directories, Guides to reference sources, bibliography of bibliographies, monographs, list of serials, union catalogues, travel guides, textbooks both in print and electronic versions.

**Unit 3: Non-Documentary Sources**: Human and institutional sources of information, government ministries and departments, R&D organizations, learned societies, publishing houses, archives, data banks, information analysis centers, referral centers, and institutional websites.

**Unit 4: Electronic Information Sources**: Internet Information Resources – PLOS, DOAJ, E- Books, Open Access Resources, Open Educational Resources. Listserves, Subject Gateways. Criteria for the evaluation of information sources – print and electronic.

**Unit 5: Databases (Full text, Citation and Bibliographic)**: ACM Digital Library, IEEE/IEE Electronic Library Online (IEL), Emerald, EBSCO, PsycINFO, Elsevier Science, PubMed Central, J-Gate, JSTOR, Web of Science, Scopus, SciFinder Scholar, , and RePEc.

**Knowledge Organisation (Theory)**

**Unit 1: Library Classification –** Meaning, need, purpose, functions – Notation: Need & Importance; types; qualities of a good notation, Mnemonics. Universe of knowledge – Structure and attribute – Modes of formation of subjects – Different types of subjects.

**Unit 2: Principles of Classification** – idea, verbal & notational planes; Facet analysis. Characteristics of Universal Library classification schemes CC, UDC, LC & DDC, Web Dewey.

**Unit 3: Cataloguing:** Purpose, structure, types including OPAC – Normative principles, Canons & Laws; Standard codes of Cataloguing – ISBDs and AACR, RDF.

**Unit 4: Bibliographic Formats** – ISO 2709, MARC-21, UNIMARC, CCF, Z39.50, W3C.

**Unit 5: Organisation of Digital Resources** – Metadata standards – Dublin core, Mark up languages; DOI (Digital Object identifier) – IFLA and LC initiatives – FRBR, FRAD, FRSAD, BIBFRAME 2.0

**Knowledge Organisation**

**COURSE OUTLINE:** Classification of Documents using Dewey Decimal Classification

(22nd Edition)

**ICT for Information Management (Theory and Practice)**

**COURSE OUTLINE**

**Unit 1: Understanding Information Technology:** Components of Information Technology – Computer and Communication Technologies, types of computers – CPU, Storage and I/O Devices – Data representation in Computers: Binary Number System, Character encoding standards – ASCII, ISCII and UNICODE

**Unit 2: Computer Software:** System Software and Application Software; Programming Concepts: Open source and Propriety, Operating Systems: Windows & LINUX / UNIX. Working with windows. File organization & Database Management Systems.

**Unit 3: Client-Server Architecture:** Networks and Networking: Network topology, Networking

– LAN, MAN, WAN, Internet, Intranet, Extranet.

**Unit 4: Office Management:** Word Processing, Spreadsheet, Presentation Software, Database (MS-Access)

**Unit 5: DBMS** – MySQL, Scripting Languages, .Net, Python, Java, HTML, XML, Web Graphics

**Management of Libraries and Information**

**COURSE OUTLINE**

**Unit 1: Introduction to Management:** Concept, definition and scope, management styles and approaches, principles and functions of management, principles of scientific management.

**Unit 2: Collection Development and Management:** Types of documents and selection and acquisition: tools, procedures and policies, problems and evaluation of collection development. Library operations - acquisition, serial control, technical processing, circulation & reference. Conservation & preservation, shelving, stock verification, binding and weeding out.

**Unit 3: Human Resource Management:** Objectives and functions – selection, recruitment, interviewing the candidates, training & staff development, performance appraisal, discipline and grievances. Manpower Planning – job description, job analysis, job evaluation. Motivation, leadership and ethics.

**Unit 4: Financial Quality and Management:** Financial responsibility and control, Budget planning and evaluation tools. Budgeting techniques – cost benefit, cost effective analysis and accounting. Accountability and reporting. Planning strategies: concept – definition – need and steps – MBO – planning techniques – decision making. Operations planning – Gantt Charts, PERT/CPM, TQM. Strategic planning process – SWOT analysis.

**Unit 5: Management of LIC:** Principles of organizational structure, organizational structure of Library and Information Centres. Library Authorities, library statistics, Library rules and regulations. Managing in the 21st century – today’s organizations, skill required for new managers.

**Information Systems and Services**

**Unit 1: Information Systems:** Concept, purpose & types. Global & National Information Systems; UNISIST, NISCAIR, NASSDOC, INIS, AGRIS, INSPEC and MEDLARS.

**Unit 2**: **Resource Building and Sharing:** Library networks; INFLIBNET, DELNET, OCLC, IFLA etc. Library Consortia in India, CSIR E-Journals Consortium, e-Shodh Sindhu, DELNET Consortium of E-Journals.

**Unit 3: Reference Process:** Digital reference service – Role and functions of Reference Librarian – Abstracting and Indexing Services – Information Analysis & Consolidation – Subject Guides and Mapping.

**Unit 4: Information Services:** CAS, SDI, Reprographic Service, Translation Service, Document Delivery, Referral Service, Newspaper clipping, Listserv, Blogs.

**Unit 5: Information Use & User Studies:** Theories and Models of Information Seeking behavior – Information Literacy.

**ILMS and Digital Libraries**

**Unit 1: Foundations to ILMS** – Historical Perspective, Need and Purpose - Approaches to Library Automation - Planning and Implementation of Library Automation - Formats and Standards - Retrospective Conversion – Housekeeping Operations – Acquisition, Serials Control, Cataloguing, Circulation – ILMS as Discovery Solutions, Library Management Solutions and Data Services.

**Unit 2: ILMS based Innovative and Value Added Services** – Alerting Services, Bibliographic Services, Document Delivery Services, Reference Services – Meta-searching and Unified Point of Discovery – Interoperability among ILMSs; ILMS' Seamless Integration with other Systems – Learning Management Systems and E-Learning Platforms.

**Unit 3: Digital Libraries:** Definitions, Characteristics, Collections – Digital Library Initiatives, Open Archives Initiative (OAI) and similar developments - Design and Organisation of Digital Libraries: Architecture, Interoperability, Protocols and Standards; User Interfaces – Open Data Repositories.

**Unit 4: Digital Content Creation and Management:** Digitization Process – Methods and Equipment – file formats - Digital Resources Management - Access to Digital Libraries, Storage

– Digital Preservation.

**Unit 5: Future Trends:** Transforming Today's Library/Information Environment to Next-Gen Intelligent and Smart Information Systems – Seamless Integration of ILMS – E-Resource Management Systems, Digital Libraries and Digital Repositories into Single platform/system with unified data and unified workflows.

**Public Library System**

**Unit 1: Public Library:** Origin and Growth, Public Library and Society, Public Library services, Public Library systems and their branches, Agencies in the Promotion and Development of Public Library System, Missions, Goals, and Objectives, Library Policies, Procedures, Practices and Legislation of Public Libraries.

**Unit 2: Public Library System & Library Buildings:** Organizational Structure of Public Library System, Accountability – metrics and outcomes, quality of life and human development, Public Library Standards, Governance and Performance Evaluation of Public Libraries. Public library buildings, resources on building design, green and sustainable building, disasters and public libraries.

**Unit 3: Resource Development & Management:** Resource mobilization and financial resources, physical and documentary resources, Human Resource Development – interviewing & performance evaluation – continuing education and staff development. Technology in public libraries – application of information technology in public libraries, public librarianship and technology skills, E-resources and digital libraries, Library 2.0 and 3.0.

**Unit 4: Community Information System:** Understanding the community and assessment of its needs, serving the community, youth and adults services, and public library as the facility to community engagement. Collaboration and partnerships, social responsibly of public library – publicizing programs and services, evaluating services & programs. Bookmobiles & Book Bikes, building engagement, civic & community engagement, libraries transform, outreach strategies, universal access, working with community groups. 30

**Unit 5: Collaboration, Consortia and Future Trends:** Cooperation with other libraries, Consortia of state libraries, cooperating with the community and other libraries, Types of Library Services, Resource Sharing and Networking, Public Library Scenario in India, UK and USA. Global perspective of public Libraries. IFLA: a global voice for public Libraries.

**Preservation and Conservation**

**Unit 1: Elements of Preservation and Conservation** - Need for Preservation and Conservation

– Evolution of Writing Materials – Palm Leaves `Birch' Bark, Manuscripts, Print and Non-Print Media – Preservation and Conservation Techniques.

**Unit 2: Hazards to Library Materials and Control Measures –** Environmental Factors, Biological Factors, Chemical Factors, Disaster Management

**Unit 3: Binding** – Types of Binding – Binding Materials – Binding Process – Standards of Binding

**Unit 4: Restoration and Reformatting –** Material Repair – Microfilming and Digitisation of Print Media

**Unit 5: Emerging Trends** – Digital Archiving, Digital Preservation, Digital Curation, Cloud Storage.

**School Library System**

**COURSE OUTLINE**

**Unit 1: Mission, Purposes, Legal and Financial Framework for a School Library –** Definition and role of a school library, vision and mission statement for a school library, objectives, functions and importance of school libraries. Apply legal and ethical principles/ issues that govern information access, intellectual property rights, and the use of technology tools and online resources. Infrastructure support for school library development, policies, planning, and funding. IFLA/ UNESCO’s School Library manifesto, instructional role of a school librarian. 34

**Unit 2: Human Resources for a School Library –** Definition of a school librarian, roles of a professional school librarian – instruction, management, leadership and collaboration, community engagement, and promoting library services. Staffing roles and rationale, roles and competencies of para-professional school library staff, role of school library volunteers, ethical standards. Concepts, strategies and techniques of administering a school library. Competencies needed to provide school library programs.

**Unit 3: Physical and Digital Resources of a School Library –** Facilities – location and space, organization of space, physical and digital access. Collection development and management - policies and procedures, issues related to digital resources, collection standards and Resource sharing. Policy development, budgeting, collection development, instructional design, support staff training, facilities design, supervision, and information networking within the school. School library standards.

**Unit 4: Programs and Activities of a School Library -** Programs and activities, information literacy, reading promotion, media and information literacy instruction, inquiry-based learning models, technology integration, professional development for teachers, and instructional role of a school librarian.

**Unit 5: School Library Evaluation and Public Relations –** Evaluation of a school library services and programs, evaluation of a school library and evidence-based practice, approaches to school library program evaluation, impacts of school library program evaluations. School library public relations - promotion and marketing, advocacy. access to library services, reference services, personnel, fiscal, collection management, and consortia arrangements. Latest trends in school libraries

Information Representation and Retrieval

**COURSE OUTLINE**

**Unit 1: Information Retrieval Systems:** Concept, definition, characteristics, components and functions – Digital IR System – Multilingual IR, Multimedia IR, Intelligent IR and NLP.

**Unit 2: Indexing Systems:** Problems in subject analysis and representation- Semantics and Syntax. Indexing Language and Vocabulary Control: Thesaurus- Structure, Functions and Compilation. Pre coordinate and post coordinate indexing systems. Keyword Indexing, Citation Indexing, Natural Language Indexing and Automatic Indexing 40

**Unit 3: Information Retrieval Models:** IR Models- Probabilistic, Cognitive and Vector models. Query formulation and Search strategies – Basic and advanced – Boolean, Truncation and Proximity - Digital IR Systems – Types, Features, File Design and Organisation– Multiple Database Searching – Common Command Language, NISO and ISO Standards, Multilingual/Cross-Lingual IR Systems & Projects – Web Information Retrieval – Meaning, Scope, Characteristics, Models and Standards, Web Indexing, Semantic Web.

**Unit 4: Evaluation of Information Retrieval Systems:** Meaning, Purpose, Criteria and Levels of IR Evaluation. Major Evaluation Studies – MEDLARS, SMART, STAIRS and Project TREC.

**Unit 5: Hands on Practical:** Database Searching (Textual, Referral, and Reference)

**Research Methods**

**COURSE OUTLINE**

**Unit 1: Basics of Research**: Concept, Definition, Objectives, Types and Significance – Research Problem – Identification, Selection and Formulation – Literature Review – Sources, Process, and Limitations – Ranganathan’s Spiral of Scientific Method.

**Unit 2: Research Design**: Definition, Need, Types and Components – Hypothesis – Definition, Formulation, Types and Testing – Sampling – Concept and Need of study population and Sampling, Types of Sampling Techniques – Probability and Non- Probability, Derivation of Sample, Sample Bias and Error – Preparation of a Research Proposal – Components and Steps.

**Unit 3: Methods and Tools**: Survey, Experimental, Case-study, Historical, and Scientific – Sources of Data – Primary, Secondary, and Tertiary – Data Collection Tools - Questionnaire, Interview, Observation, Delphi – Measures and Scaling Techniques.

**Unit 4: Statistical Tools**: Need and Importance, Descriptive and Inferential Statistics – Measures of Central Tendency – Standard Deviation – T-Test, Chi-Square, ANOVA, Correlation Analysis – Introduction to SPSS.

**Unit 5: Presentation and Reporting**: Presentation of Data – Creation of Tables, Charts and Figures – Interpretation, Inferences – Deductive and Inductive – Report Writing – Components and Evaluation of a Research Report – Style Manuals – Chicago, MLA, APA – Introduction to Reference Manager – Ethics in Research and Publication.

**Soft Skills**

**Unit 1: Personality Development**: Understanding personal strengths and weaknesses, work and organisational psychology – Stress management, Time management and crisis management – Communication Skills – Interpersonal, Intrapersonal, and Group.

**Unit 2: Effective Speaking –** Elements and types – impromptu speech, memorized speech, manuscript speech, extemporaneous speech – stages and strategies.

**Unit 3: Writing Skills** – Principles of presentation of ideas – Techniques and tools for effective writing – Internal and External correspondence at the workplace – preparation of a project proposal/research papers.

**Unit 4: Workplace Skills –** Telephone Skills **–** Group Discussion - Body Language. Leadership and working in teams – Knowledge Sharing – Team Development.

**Unit 5: Job Related Skills** – Preparing Personal Profile, Portfolio, Resume – Job Interview – Public Relations; Different types of meetings and Negotiation Strategies.

Ontology

**Unit 1: Ontology**: Scope, Role of ontologies in Knowledge Management – Architecture for semantic – based Knowledge Management – Tools for ontology – based Knowledge Management.

**Unit 2: Ontology Languages**: Introduction- OIL and DAML+OIL Semantic web pyramid of languages

**Unit 3: Ontology based Knowledge Management**: Introduction- Feasibility Study- Kick off phase-Refinement phase- Evaluation phase- Maintenance and Evolution phase.

**Unit 4: Resource Description Framework**: Introduction – RDF features. Ontology based knowledge management.

Web Technology

**Unit 1: Web Technology – An Overview –** Internet: History, Features, Services & Protocols – WWW: History, Features, Web Servers, Web Clients – Distributed Information System and Services – Web 2.0, Lib 2.0, Semantic Web, Cloud Computing.

**Unit 2: Web Browsers and Services** – History, Function, Features of Browsers (IE, Firefox, Chrome)

**Unit 3: Mark-up Languages and Scripting Languages** – Functions & Features of HTML, XML, DHTML, XHTML, CGI

**Unit 4: Websites –** Tools and Techniques; Types of Websites, Web contents, Static web contents, Dynamic Web Contents – MySQL, PostgreSQL.

**Unit 5: Search Engines –** Types, Features, Functions, Evaluation – Search Algorithms – Security Issues – Database Connectivity.

**Marketing of Information Products & Services**

**Unit 1: Information as a Resource** - Economics of Information; Information as a product; The range of information products, customers, profiling the information industry, the marketing environment. Pricing Information products and Services.

**Unit 2: Concept of Marketing –** Marketing Mix; Kotler’s Four C’s; McCarthy’s Four P’s, Corporate Mission.

**Unit 3: Marketing Research** – Branding and Corporate Identity: Marketing Research: Market Segmentation and Targeting; Geographic and Demographic Segmentation; Behavioral and Psychographics Segmentation; User Behavior and Adoption. 51

**Unit 4: Marketing Strategies and Planning –** Nature and models of marketing strategy and planning; Situation audit and analysis; SWOT analysis, 7S framework, Boston Consulting Group Matrix, Ansoff’s Growth Matrix, Product Life Cycle. Performance and Impact Analysis.

**Unit 5: Trends in Marketing Library** – Role of Social Media in Marketing of Information – Case Specific Strategies.

**Knowledge Management**

**COURSE OUTLINE**

**Unit 1**: **Knowledge Management:** Concept and definitions – Need for Knowledge Management in the emerging and changing business environment – Understanding knowledge; Types of Knowledge – explicit and tacit Knowledge – Knowledge works - changing role of Library and Information Professionals. 53

**Unit 2: Knowledge Creation and Capturing:** Knowledge creation model – Capturing tacit knowledge

**Unit 3: Knowledge Codification and Organization:** Knowledge base - knowledge mapping, decision trees, decision tables, frames etc.

**Unit 4: Tools and Techniques of Knowledge Management**: Neural network, Data Mining.

**Electronic Resources Management**

**COURSE OUTLINE**

**Unit 1: Electronic Resources**: Overview, concept, definition, evolution, need, characteristics, benefits and drawbacks – E-Resource life cycle.

**Unit 2: Electronic Resource Management Systems (ERMS):** Selecting, acquiring/ subscription/ purchasing, implementation, evaluation and renewing electronic resources/ cancellation. Consortia: Concept, need, purpose & limitations; E-ShodhSindhu: Consortium for Higher Education Electronic Resources. Techniques for Electronic Resource Management (TERMS), Strategic planning for ERM – Media and Format Migration.

**Unit 3: Collection Development Process**: Formulating policy, budgeting, evaluation of e- resources. Organization & description of resources. Metadata: requirements, types. User awareness and capacity building. Strategic planning for ERM, Electronic usage statistics, standards and guidelines (SUSHI – COUNTER) – LOCKS, CLOCKS 56

**Unit 4: Web-based Resources**: Scope, types and evaluation. Economics of E-resources – Pricing. Access management of E-resources: authentication and access management of e- resources. Subscription models: copyright, licenses and tactics and terms in the negotiation of e- resources licenses.

**Unit 5: Recent Trends in ERM**: Future of ERMS, hardware and software changes, user behaviour and expectations, disintegration of the ILS, intellectual property and perpetual access and archiving – Coral.

Informetrics

**SOFT CORE COURSES (ANY ONE)**

**LISC524 – Informetrics 3 Credits**

**COURSE OUTLINE**

**Unit 1: Introduction:** Concept, definition, need and historical overview and application of Informetrics, Librametrics, Bibliometrics, Scientometrics, Webometrics and Altmetrics

**Unit 2: Classical Bibliometric Laws:** Zipfs Law, Lotka’s Law and Bradford’s Law – Application of bibliometric laws.

**Unit 3: Growth and Obsolescence of Literature**: Various growth models 60

**Unit 4: Citation Analysis**: Definition, Citation indexing, including bibliographic coupling and co-citation analysis. Formulas for measuring Citations: H-index, Impact Factor, Immediacy index. Citation Indexing Databases and Services: Scopus, Google Scholar, web of Knowledge, others.

**Unit 5**: **Mapping of Science**: Journal – Journal, Authors, Citation – Mapping Indicators – Mapping & Data Analysis Tools – VOS Viewer, Pajek, Bibexcel, Histcite, etc.

E-Publishing

**COURSE OUTLINE**

**Unit 1: Desktop Publishing (DTP) –** History, typography, methods of DTP, DTP software, other hardware and software required – Scanners, Digital cameras, Adobe InDesign.

**Unit 2: Types of Documents –** Periodicals, promotional, informational, stationary, instructional, and presentations. Layout and design principles, basic elements of popular DTP. Using DTP software – importing and positioning text, understanding typography, enhancing documents with graphics, tables, colours, indexes and tables of contents for large size publications; printing and publishing – proofing, Portable Document Format (.pdf), preflight, etc.

**Unit 3: Image Editing –** Images (analogue/digital), image processing, common image file formats in publishing - .jpg, .tif/.tiff, .psd, .ai; resolution – monitor, printer, scanner; colors management – RGB, CMYK; image manipulation, adjustment and correction tools and techniques, layering images, channels and masks, adding text, filters.

**Unit 4: Web Publishing** – Web design and layout concept differences – Head content and location, formatting text, images – file formats, size; enhancing for print vs. web, accessibility and navigation. Adding and configuring audio, creating play and stop buttons. Adding video **–** setting video playback options, placing video into a document. HTML overlays - adding local HTML content into an overlay – Author Publishing – Aggregator as model of E-Publishing.

**Unit 5: Technological Trends –** Multimedia publishing, DRM Technology and standards, Internet publishing law, ethics in publishing – copyright, privacy etc.

**Intellectual Property Rights**

**COURSE OUTLINE**

**Unit 1: Intellectual Property Rights:** Concept, definition, purpose and functions of IPR, significance in the present scenario, some important examples of IPR, protection of IPR, genesis and development of IPR in India and abroad.

**Unit 2: Different Types of IPR**: Copyrights and related rights, Patents, Trade Marks, Industrial Designs, Geographical Indications, Traditional Knowledge, Plant Variety Protection, Biological Diversity, Protection of Integrated Circuits Layout Designs, Protection of Undisclosed Information.

**Unit 3: Leading International Laws on IPR**: Berne Convention, Universal Copyright Convention, Paris Convention, Patent Cooperation Treaty (PCT), Patent Law Treaty (PLT), GATT, WTO and TRIPS Agreement, Role of WIPO and UNESCO related to IPR.

**Unit 4: Management of IP:** IP Policies, Licensing, Legal issues, Commercialization of IPR, Initiatives of Government of India towards protection of IPR, Emerging Issues and Challenges of IPR in Internet age.

**Unit 5: IPR in Digital Environment:** Need and uses, electronic resources licensing, rules and laws governing IPR in India and abroad, its development and amendments – Plagiarism – DRM.

**TRIPURA UNIVERSITY**

**Department of Library and Information Science**

Syllabus for **MLIS** Course

**ICT APPLICATION IN LIBRARIES – THEORY**

**Learning Outcomes:**

At the end of the Course student will be able to

1. Understand the concept of Library Automation

2. Get familiarity with library automation software

3. Elaborate the automated services

4. Comprehend the concept of library security and related technologies

**Unit 1: Library Automaton**

Purpose, Planning and Implementation

Library Automation Software: Types and Features

Open Source Library Software: Koha, Greenstone and DSpace

Automation of House Keeping Operations: Acquisition, Circulation, Cataloguing, Serial Control

**Unit 2: Automated Services**

Electronic Reference Services

Bibliographic and Database Search Devices

CAS/SDI in Automated Environment

Electronic Document Delivery Service

Web 3.0 and Library 2.0

**Unit 3: Library Networks and Consortia**

Objectives, Scope and Characteristics

Major Library Networks: INFLIBNET, DELNET, OCLC

Library Consortia: UGC-Infonet, INDEST, CSIR E-Journal Consortia

**Unit 4: Library Security Technology**

Barcode

RFID

CCTV, Biometrics, Smartcard

**INFORMATION SYSTEMS AND NETWORKS**

**Unit 1: Information Systems**

Definition, Types and Characteristics

Information Organization and Systems

Planning and Designing of Information System

Evaluation of Information System

**Unit 2: National Information System**

ENVIS

BIS

PIS

**Unit 3: Global Information System**

AGRIS

INIS

INSPEC

MEDLARS

WIPO

**RESEARCH METHODS**

**Learning Outcomes:**

At the end of the Course student will be able to

1. learn the basics of research and research methodology in terms of types, forms, formulation research problems

2. formulate objectives, hypotheses, research design, and literature search

3. apply different data collection methods and analyzing the data through different statistical techniques

**Unit 1: Research and Research Design**

Concept, Meaning, Need, General Characteristics and Process of Research

Types of Research: Fundamental and Applied, Other Research Approaches

Research Design, Types of Research Design, Research Plan

Formulation of Hypothesis, Testing of Hypothesis

Literature Search: Print, Non- Print and Electronic Resources

**Unit 2: Research Methods**

Scientific Method

Historical Research

Survey Research and Case Study Method

Experimental Research and Delphi Technique

**Unit 3: Data Analysis and Interpretation**

Data Collection Tools: Questionnaire, Interview, Observation and Sampling

Data Presentation: Tables, Charts/Graphs

Statistical Techniques/Interpretation of Data: Frequency Distribution, Measures of Central Tendency, Time Series Analysis, Measures of Dispersion, Correlation, Regression Analysis and Analysis of Variance

Statistical Inference

Use of Statistical Packages

**Unit 4: Bibliometric Methods and Report Writing**

Bibliometric Studies: Meaning, Scope and Parameters

Bibliometric Laws and Their Applications

Preparation of Writing of Research and Report (Theses and Dissertation)

Guidelines for Research Reporting

**ICT APPLICATION IN LIBRARIES – PRACTICAL**

**Unit 1: Hands on Experience of Windows Operating System Unit 2: Hands on Experience on Application Software:**

Drafting Letters and Issuing Reminders (with MS-Word)

Preparation of Accession Register (with MS-Excel)

Preparation of Presentation (with MS-Power Point)

**Unit 3: Hands-on Experience on Library Software**

Integrated Library Software: Koha/SOUL

**Unit 4: Viva Voce**

**\ INFORMATION LITERACY**

**Learning Outcomes:**

At the end of the Course student will be able to

Understand the importance of evaluated information

Evaluate any source of information

Evaluate any media message

Evaluate search engines

**Unit 1: Growth and Development of Information Literacy**

Information Society and Information Literacy

Information Literacy: Definition, Models and Standards

Information Literacy: Strategic Plan

Information Literacy and Lifelong Learning

**Unit 2: ICT and Media Literacy**

Computer Literacy and E-Literacy

Digital Literacy

Information Literacy and Bridging the Digital Divide

Information Literacy and Media Literacy

**Unit 3: Information Literacy and Libraries**

School, College and University Libraries

Public Libraries

Special Libraries

Information Literacy and LIS Education

**Unit 4: Policy and Advocacy**

Information Literacy: Initiatives and Forms in USA, UK and Australia

Policies and Guidelines: UNESCO, IFLA and ALA

Information Literacy: Skills and Competencies

Information Literacy: Best Practices

**Name of the Course: COMMUNITY INFORMATION SERVICES**

**Unit 1: Community Information Services**

Community Information: Definition, Scope and Origin

Need and Sources for Community Information in Society

Role of Libraries in Community Information

Community Information in USA, UK and India

**Unit 2: Community Information Services**

Community Information Services: Meaning, Types and Target Users

Community Information Centres: Planning and Role of Information Services

Community Information Services to Specific Community

Rural, Urban and Metropolitan Communities

Industrial Business Communities

Academic, Research, Institutional and R & D Communities

Physically, Mentally Disadvantaged Communities

Children, Old People and Illiterate

**Name of the Course: PUBLIC LIBRARY SYSTEM**

**Unit 1: Public Library Development**

Public Library: Social and National Development

UNESCO Contribution for Public Library Development

Administration of Public Libraries

National Agencies for Public Library Development

Library Legislation

**Unit 2: Public Library Services**

Library Services: Types

Public Libraries as Knowledge Centres

Changing Dimensions of Public Library Services

Evaluation of Public Library Services

**Unit 3: Public Library: Resource Development**

Resource Mobilization in Public Library

Public Library Finance

Information Resource Development for Public Libraries

Human Resource Development in Public Libraries

**Unit 4: Public Libraries: Trends and Development**

ICT Applications in Public Libraries

Resource Sharing and Networking

Changing Scenario of Public Libraries in India, UK & USA

Web based Public Library Services

**Name of the Course: ACADEMIC LIBRARY SYSTEM**

**Unit 1: Academic Library: Functions and Services**

Role of Academic Library in Higher Education

Academic Library Services

Academic Library Manageme

Role of UGC for Academic Library Development

**Unit 2: Resource Development**

Physical Resources including ICT Infrastructure

Human Resource Development

Financial Resource Development

**Unit 3: Collection Development**

Collection Development, Write-off and Weeding out policy

Problems in Collection Development

Role of Library committee in Collection Development

**Unit 4: Staff Development and Continuing Education**

Staffing Norms and Standards

Continuing Education program for Academic Libraries

Personnel Management

**Name of the Course: PERSONALITY DEVELOPMENT**

**Unit –I Self-Awareness**

Tracing the roots

Building confidence and boosting enthusiasm

Promoting a zealous outlook towards life

Imbibing positive thoughts and actions

**Unit –II Communication Skills**

The Basic

Forms of communication

Understanding body language

Social skills

**Unit – III Workplace Skills**

Presentation skills

Telephone skills

Group discussion skills

Adjustment

Work ethics

**Unit-IV Writing Skills**

Basics of writing

Internal and External correspondence at the workplace

Basics of writing proposals

Writing reports

**Name of the Course: INFORMATION RETRIEVAL**

**Unit 1: Information Retrieval Systems**

Definition, Types, Components of ISAR Systems

Elements of File Organization

Artificial Intelligence and Expert System

IR Models

**Unit 2: Subject Representation and Indexing Languages**

Alphabetical Subject Representation

Contribution of Cutter, Kaiser, Ranganathan, Farradane and Coates

Characteristics of Indexing Languages

Vocabulary Control-List of Subject Headings, Thesaurus and Thesaurofacet, Classaurus

**Unit 3: Indexing Systems and Techniques**

Pre-Coordinate Indexing System: Chain Indexing, PRECIS, POPSI

Post-Coordinate Indexing System: Uniterm Indexing System

Title Derived Indexing System: KWIC, KWOC and KWAC

Citation Indexing: Science Citation Index, Social Science Citation Index

Automatic Indexing: COMPass

**Unit 4: Information Searching and Evaluation**

Search Methods and Search Strategy, Boolean Search

Online Search Techniques

Information Searching in different media: Print Media and Internet

Need and Parameters of Evaluation

Retrieval Performances: Recall and Precision Ratio

**Name of the Course: DIGITAL LIBRARY THEORY AND PRACTICE**

**Unit 1: Content Management and Digitization**

Content Development: Concept; Content Creation & Organization

Content Development & Maintenance using Dreamweaver

Digitization Tools, Digitization Process, Digitization File Formats

**Unit 2: Digital Library Creation**

Digital Library & Institutional Repository: Concepts; Digital Library Initiatives (National & International)

Digital Library Software (s)

**PRACTICAL**

**Unit 3: Content Management & Digitization Practice**

Hands on Practice of Library Website Designing using Dreamweaver

Hands on Practice of Scanner, Digital Camera and OCR

**Unit 4: Digital Library Practice**

Hands on Practice of Digital Library Creation using DSpace and Greestone

Creation of Communities & Collection, Submission Process

**Name of the Course: DISSERTATION AND VIVA-VOCE**

**Learning Outcomes**

At the end of the Course student will be able to

Write research proposal

Understand data collection methods

Analyse data

Face interviews

**Dissertation**

Every student shall have to choose a topic for the dissertation in the beginning of the first semester and preliminary preparation carried out under the guidance of a teacher. The final prepared dissertation to be submitted to the department/university before the commencement of the second semester for evaluation jointly by the external and internal examiners followed by a Viva-Voce. 1 4

**Name of the Course: KNOWLEDGE MANAGEMENT**

**Unit 1: Knowledge Management**

Concept of Knowledge Management

Scope of Knowledge Management

Types of Knowledge Management (Explicit Knowledge & Implicit Knowledge)

**Unit 2: Knowledge Management: Creation & Tools**

Knowledge Creation, Access, Transfer and Sharing

Knowledge Tools

Knowledge Networks

Decision Making

**Unit 3: Pre-requisites of Knowledge Management**

Sharing of Expertise

Knowledge Mapping

Knowledge Worker

Value Added Knowledge

**Unit 4: Benefits and Challenges of Knowledge Management**

Benefits and Challenges of Knowledge Management

Pioneers in Knowledge Management

KM Initiatives in Indian Organization

Software for Knowledge Management

Trends and Challenges in Knowledge Management

**Name of the Course: E-RESOURCE MANAGEMENT**

**Learning Outcomes**

At the end of the Course student will be able to

Deal with various E-resources

Get an idea about E-resources in different disciplines

Understand the importance of open access E-resources

**Unit 1: Types of e-Resources**

E-Books

E-Journals

Consortia based e-resources

E-Reports

ETD

Internet Resources

Open Source

**Unit 2: Internt Resources**

Science & Technology

Humanities

Social Science

Evaluation of Internet Resources

**INFORMETRICS AND SCIENTOMETRICS**

**Unit- 1**

Bibliometrics, Informetrics, Librametrics, Scientometrics, Altmetrics

Concept, definition, need, Scope & Parameters

Bibliometric Laws & their Applications

**Unit- 2**

Citation analysis, Impact Factor, Online citation index

Concept of citation analysis, Formulas for measuring Citation

H-index, I10- index, G-index

Impact factor: concept, need, Formulas for measuring impact factor

Citation Indexing: Citation Databases and Services: Web of Science; Scopus, ICI, Google Scholar

**Unit-3**

Hands on Practice using Bibexcel and Pajek Software

At the end of the Course student will be able to

Get familiar with concepts of Intellectual Property rights

application of copyright

understand the laws of IPR

know about geographical indicators, Copyleft, Trademark

**Intellectual Property Rights (IPR)**

**Unit 1: Intellectual Property Rights**

Concept of IPR

Different Categories of IPR

Enforcement of IPR

IPR Acts and its Application in Electronic Environment

**Unit 2: Copyright**

Meaning and Scope

Copyright Law and Related Issue

Rights to copyright owner

Copyrights and Patent Right

Licensing of Copyright

Copyright Act and its Application in Electronic Environment

University Of Hydrabad

**POST-GRADUATE DIPLOMA IN LIBRARY**

**AUTOMATION AND NETWORKING (PGDLAN)**

**Course Structure:**

**Term - I**

**Note:** Courses DCL 412 & 415 are compulsory. Two

Optional Courses from the remaining four are to be taken to

complement the knowledge of the participant.

DCLIPR 411 : Introduction to Computers & Personal

Productivity Software

Part I : Introduction to Computers andh Programmin

in C

Part II : Personal Productivty Software

DCLIPR 412 : Computer Network, Internet Tools and

Security Management

Part I : Computer Networks and Internet Tools

Part II : Network Security Management

DCLIPR 413 : Legal Organizational Structure /

International Organizations

Part I : Legal Organizational Structure andh

Constitutional Law

Part II : International Law, International Economic

Law, International Organizations

DCLIPR 414 : Introduction to Business Laws and Laws

of Crime

Part I : Business Laws

Part II : Criminal Laws & Torts

DCLIPR 415 : Introductions to IPR and TRIPS

Part I : Introduction to Intellectual Property Rights

with WIPO Orientation

Part II : Trade Related Intellectual Property Rights

DCLIPR 416 : Introduction to E-commerce, E Banking

and E-Governance

Part I : Introduction to E-Commerce & E-Banking

Part II : Introduction to E-Governance

**Term – II**

DCLIPR 421 : Cyber Crime & Cyber Forensics:

Advanced Topics with relevant

Provisions of IT Act- 2000.

Part I : Cyber Crime & IT Act.

Part II : Cyber Forensics

DCLIPR 422 : Part-I: Electronic Records / Digital

Signatures & Certificates / Certifying

Authorities / IT Act 2000

Part-II: Digital Signatures Specialized

Topics

DCLIPR 423 : Cryptology & Public Key Infrastructure /

IPR Issues in Integrated Circuits,

Software and Data Protection

DCLIPR 424 : International Law Copyright and Related

Rights

DCLIPR 425 : International Law of Patents,

Trademarks and Industrial Designs

DCLIPR 426 : Project Work on Specialized topic

**Course Code: 1009E**

**Name of the Course: PRESERVATION AND CONSERVATION OF LIBRARY MATERIALS**

**Learning Outcomes**

At the end of the Course student will be able to

Get familiar with concepts of preservation and conservation of library materials

Preserve Non-Print Materials such as Palm leaves and manuscripts

Learn about hazards in libraries and how to fix them

Learn about binding process

**Unit 1: Preservation and Conservation: Overview**

Preservation and Conservation: Historical Development, Need and Purpose

Preservation of Print Materials: Books, Periodicals, Pamphlets

**Unit 2: Preservation of Non-Print Materials**

Palm Leaves

Manuscripts

Films

Floppies and Disks

**Unit 3: Hazard to Library Materials and Control Measures**

Environmental Factor (Temperature, Humidity, Water, Light, Air Pollution, Smoke, Dust, etc.)

Chemical Factors

**Unit 4: Binding**

Types of Binding of Library Materials

Binding Material and Their Varieties

Binding Process

Standards for Library Binding

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

**SIKKIM UNIVERSITY**

**Foundations of Library and Information Science**

Unit I

Definition/attributes of Data, Information and Knowledge; Information Transfer Life Cycle: Generation, Storage and Dissemination; Concept, Definition, Purpose, Role, and Functions of Library. Historical development of libraries in India. Types of Libraries. Five Laws of Library Science. Philosophy of Librarianship: Nature, Scope, History, Role and Professional Ethics. Unit II

Library Legislation and Acts: Need and Feature, Library Legislation in India; Model Public Library Act, The Press, and Registration of Books Act: Delivery of Books (Public Libraries Act) 1954 and Latest Amendments; Intellectual Property Rights; Copyright Act; RTI Act, Information Technology Act. Digital Millennium, committees, and commissions on libraries Unit III

Information and Knowledge Society; Features of Information and Knowledge Society, Knowledge Economy. National Knowledge Commission of India, National Mission on Libraries, UNESCO Public Library Manifesto, IFLA Public Library Guidelines. Unit IV

Library Associations and Information Centers: ILA, IASLIC, RRRLF, INFLIBNET, DESIDOC, DRTC, NASSDOC, NIScPR, National Library of India, NDLI, CILIP, Library of Congress, British Library, IFLA, ASLIB

**Information Sources, Services and Literacy**

Unit I

Information Sources: nature, characteristics, format and types ; Primary, secondary, tertiary sources of information. Print and Electronic Sources (Documentary and Non-Documentary Sources); Finding Information from fact finding sources such as dictionaries, encyclopedias, year books, directories, gazetteers, biographical dictionaries (Who’s who), Bibliographical Sources (INB, BNB, Trade bibliographies), Geographical Sources, Evaluation criteria of reference sources. Unit II

Web Resources; Subject Gateways; e-books; e-journals; DOAJ and DOAR, Forum, Bulletin Board, Electronic & Web Publishing, Electronic Media; Searching information from web resources Unit III

Information needs, and methods of user study. Types of users and their needs. Information Seeking Behavior (ISB); Theory and models. Reference Process; Reference Services: Concept; Purpose, Theories. Indexing and Abstracting Services; Document Delivery Services; Unit IV

Information literacy: role, scope, methods, standards, models. E-learning: theories, principles, scale, standards, services and initiatives. GOI Digital Initiatives in Higher Education (SAWAYAM; NPTEL); Role of the library in promoting information literacy; Tools and Techniques used to deliver information literacy; Online Services (Library Apps, SMS alert, RSS Feed. Library networks.

**Information and Communication Technology Applications**

Unit I

Information Technology Concepts; Computer Fundamentals; Different Components of Computers; Hardware, Software; System Software; Operating System (Windows, Linux); Privacy, Security, Proxies, Firewalls. LAN and Internet IP addresses, subnet masking, RFC-1918, DNS, Gateway, SSH, SFTP,

Unit II

System Software: Compilers, Interpretors, Overview of Programming Languages; Application Software: Word; Excel; PowerPoint; Open Source Software, github, sourceforge

Unit III

Fundamentals of Internet: Meaning, Purpose Function; Hypertext, HTML, XHTML, XML, XSLT, CSS, JSON. Database Management Systems: MySQL or PostgreSQL. Character Encoding: ASCII and UNICODE, Multimedia Files Formats.

Unit IV

Search Engines: Type and Architecture: Boolean Operators; Simple and Advanced Search features (Google as example); Clusty search engine, Advanced features of Browsers; Evaluation of Search Engine (Recall and Precision), Communication Technology: Introduction to Gsuit and Google Products (Email; Google Drive; Google Documents), Social Networking meaning & purpose. Advantage and Disadvantage

**Knowledge Organization and Arrangement: Library Classification (Theory)**

Unit I

Universe of Subject; Modes of formation of subjects and knowledge. Simple, Compound and Complex Subject; Knowledge and Subject Classification: Definition, Need, Purpose and Importance. Simple Knowledge Organization System (SKOS), Mapping and division of knowledge in various schemes of Library Classification with special reference to DDC, UDC and Colon Classification. Unit II

Theoretical foundation of Library Classification by W C Berwick Sayers, H E Bliss, S R Ranganathan. ISKO: Historical Perspectives. General Principles and devices of classifying documents. Unit III

Notation System, Call numbers, Class numbers, Book numbers, Faceted Classification, Postulational approach to classification, Principles of helpful sequence, Five Fundamental Categories and facet analysis and facet sequence. Shelf Arrangement, Shelf List, Arrangement of Special Collection Unit IV

Online Classification Systems, Web Dewey, OCLC Classifier, Recent development and trends in classification research, Automated classification

**Knowledge Organization and Arrangement: Library Classification (Practice)**

Unit I

Classification of Documents of simple subjects by Colon Classification; Basic Subjects; Complex Subjects; Devices; Common Isolates; Space, Time, Language Isolated Use of Devices Unit II

Classification of Documents of simple subjects by Universal Decimal Classification; Unit III

Classification of documents of complex subjects by DDC latest edition available with the use of tables and devices. Unit IV

Copy classification (Use of already worked out class number of books for Main Class, Division, Sections) Construction of Book Number and Call numbers

**Library Management and Operations**

Unit I

Concept of Library Management - Principles and practices. Scientific management; MBO, SWOT Analysis. Personnel Management: Staffing Pattern and Nomenclature, Manpower Planning: Job Analysis, Job Description, Job Specification, Performance Evaluation, Leadership and Motivation Unit II

Project Management: PERT/CPM. Quality management and certification. Risk management, Disaster management and Change management. Library Budget and Finance: Planning, Standards and Allocations. Library Building: Design, Planning and Furniture. Functional/Modular Library Building. Green Library Building. Unit III

Resource Management: Principles and theories of collection development. Patron Driven Acquisition Module. Selection tools and techniques of print and e-resources. Finance, budgeting and accounting, Selection of book suppliers and their empanelment. Pricing policies and discount. Agreements with product suppliers and terms and conditions of supply. Licensing and pricing models of supply of online resources. Ordering, receiving and technical processing of books and other information products. Unit IV

Maintenance: shelf reading and rectification. Stock verification, library statistics, annual report; User Management: Circulation Control: Registration, issue, return, online renewal, reservation; Furniture and equipment. Binding.

**Digital Library and Content Management System**

Unit I

Concept of Digital Libraries; Historical Developments of Digital Libraries; Component and Elements of Digital Libraries (Digital Objects – Text, Image, Audio, Video); Networks; Digital Library Features Unit II

Digital Library Developments, Architecture and Workflow: Open Archival Information System (OAIS) model, Archival Information Package (AIP), Submission Information Package (SIP), Dissemination Information Package (DIP); Digital Curation (DCC), Search Facilities: Lucene Search Engine; User interface. Digital Information Organization and Identifiers; Open Standards: OAI-PMH, OAI-ORE, REST, SWORD; Metadata Standards: Dublin Core, Qualified Dublin Core, ANSI/NISO etc. Unit III

Collection Development and Preservation, Content Selection, Digitization, Techniques, Software, OCR, Institutional Repositories – Concepts and Application; Collection Development Policies; IPR – Copyright, DRM, Preservation Metadata: PREMIS; Handles CNRI, DOI, Registry of Digital Repository (Open DOAR); Digital Library Software: DSpace Greenstone, EPrints; Major Digital Library Initiatives (National and International); Unit V

Digital Content Creation – Concept, Process and Methods; Content Management System:,

**Library Automation and Networking**

Unit I

Introduction to Library Automation; Historical Perspective, Need and Purpose; Approaches to Library Automation Unit II

Management of Library Automation: Planning; Library Automation Software; Choosing Library Automation Software; Evaluation of the Software; Implementation; Open Source Library Automation Software (KOHA); Propriety Software (SOUL) Unit III

Automated Housekeeping Operations: Acquisition; Cataloguing; Circulation; Serial Control; Budget; Reports; Retrospective Conversion; Data Migration Unit IV

Computerised Information Services and Networking: Computerized Alerting Services; Automated Cataloguing; SDI Automation; Z39.50; MARC; Network Software; Web Based Automation (Cloud based)

**Knowledge Organization and Description: Library Cataloguing (Theory)**

Unit I

Catalogue its types and functions, Document description according to AACR-2, Cataloguing of various types of information resources (printed, non-printed and electronic), Introduction to CCC. Unit II

RDA, Standards for Machine Readable Bibliographic Records – ISO 2709/Z39.2/Z39.50 and the MARC family of Formats, XML, role of Law of Osmosis and Retro conversion, Standards for Bibliographic Organization, ISBDs, FRBR. Dublin core. ISSN, ISBN.

Unit III

Subject cataloguing and content analysis. Latest editions of Library of Congress Subject Headings List (LCSHL), Sears List of Subject Headings (SLSH), Chain Indexing, Thesaurus, Thesauro-facet. Unit IV

Preparation of bibliographic records, Use of ISBN, ISSN, Copy cataloguing from Library of Congress, Columbia University Catalogue, British Library, OCLC and other national and international catalogues, Indexing and abstracting. Web OPAC and its functions, BIBFRAME, Centralized and Cooperative Cataloguing: OCLC, WorldCat, IndCat, NERCAT

**Knowledge Organization and Description: Library Cataloguing (Practice)**

Unit I

Preparing Catalogue Entries as per AACR-2 (Main Entry; Added Entry

With Various Authorship; Single Personal Authorship; Joint Authorship; Works of more than three Authors; Collaborative Works, Pseudonymous Authors, Unit II

Corporate Authorship (Government, Organizations, Institutions, Societies); Series; Multivolume Works; Composite Works; Uniform Titles; Sacred Scripture ; Anonymous Works Unit III

Preparing Catalogue Entries (Main, Added and Reference Entries) for Non-Book; Materials using Anglo American Cataloguing Rules -2 revised edition; Serials; Unit IV

Non Book Materials : Cartographic Materials; Manuscript; Motion Pictures, Video Recording, Devices

**Information Storage and Retrieval**

Unit I

Information retrieval system: concept, definition and components.

Content analysis and representation (ISBD; Metadata – MARC; Dublin Core), Contribution of Cutter, Kaiser, Ranganathan and E J Coates. Text retrieval models. Unit II

Indexing and abstracting systems: Introduction to Subject Indexing Language. Pre-coordinate (PRECIS) and post-coordinate indexing (POPSI), KWIC, KWOC, KWAC Unit III

Vocabulary control: Thesaurus and Thesaurofacet-Definition, purpose and construction; Information Retrieval Models and Queries; Evaluation of retrieval systems such as Precision, Recall, etc. Unit IV

Information System and Databases; Searching and Retrieval: Search strategy and formulation, Truncation, Filtration, Boolean logic, Federated search, Web based retrieval, Free text search. Searching Databases such as Web of Science; SCOPUS, J-Gate; EBSCOHost; PubMed, AGRIS. Semantic Web, Ontology, Linked Data, Big Data, Data Mining, Natural Language Processing,

**Electronic Resource Management**

Unit I

Overview of Electronic Resources: Introduction, Types of Electronic Resources, Emergence and Entrenchment of Electronic Resources in Libraries, Unit II

Acquisition and Selection of Electronic Resources: Collection Development, Acquisitions of Electronic Resources, Technical services, and systems, Consortia Model of Electronic Resource Acquisition and Licensing, Vendor Selection, Negotiation and Contracting, Maintaining, and Renewing Electronic Resources; Deselecting Electronic Resources, Unit III

Access Management: Linking, Parsing, and Access, Generating Title Lists, Linking and Discovery Tools, Delivering, Branding, Marketing, User Training, Digital Rights Management, Preservation of Electronic Resources – LOCKS, CLOCKS Unit IV

Usage Control and Maintenance: Administrative Interfaces; Authentication; Proxy Servers, Remote Logins Electronic Resources Usage: COUNTER and SUSHI, Observation Logs, Copyright, Fair Use,

**Research Methodology and Scholarly Publishing**

Unit I

Basics of Research: Meanings, objectives, types and significance, Research Problem: Identification and Selection. Ethics in Conducting Research. Research Design: Basic principles of Research Design. Hypotheses Formulation, Types of Research Design and Sampling Techniques. Unit II

Methods of Data Collection and Analysis: Questionnaire, Interview, Observation and Case Study. Data Representation: Tabulation, Analysis and Inferencing. Data Validation. Descriptive and inferential statistics, Measures of Central Tendency, Standard Deviation, T-test, Chi-square, ANOVA, Correlation and Regression Analysis. Statistical Software – SPSS; R Programming Unit III

Elements of Academic Writing; Writing a Scientific Paper; Citation and Reference Management; Selection of Research Publishing Platforms; Research Impact Assessment and Metrics - Meaning and Purpose; Unit IV

Publication Ethics & Misconduct. COPE and WAME. UGC Guidelines (2018); Plagiarism and Plagiarism Detection Software – URKUND (OURIGINAL), TURNITIN

**Research Data and Content Literacy**

Unit I

Introduction to Data Science and Big Data; Data Types, Data Models, Characteristics of Data; Sources of Data, Open Data, Five Star Data, Organizations involved dealing with Data related issues such as WDS, ICSU/CODATA, RDA etc.; FAIR Principles Unit II

Metadata for Data, Domain Specific Metadata of Data; Ontologies related Data; Data Citation, Linked Open Data (LOD). Unit III

Research Data Management, (RDM), Data Management Cycle; Data Management Plan (DMP), Government Data, RDM Steps; Data Curation and its workflow. Publishing Data, Data Repositories, Licenses related to Data; RDM Tools – Analyzing; Visualizing, Bibliographic Unit IV

Research Data and Content Literacy – Steps of Data & Information Literacy (research data skills), Identify, Classify, Organize, Provide;’ Models; data management competences; Practice: Bad Data, Software for Cleaning Messy Data – OpenRefine; Extract, Transform, Load (ETL) software – Talend; Software for Data Repositories: CKAN, dataVerse; Research Data Repository – Figshare, Zonedo\

**Social Science & Humanities Information Systems and Services**

Unit I

Patterns of Development of Knowledge : Humanities & Social Science; Developments in Major Subjects of Humanities and Social Science – Psychology, Philosophy, Geography, Law, Sociology, Political Science, History, Economics Unit II

Sources of Information in Humanities and Social Sciences

• Primary Sources of Information: Their Types, Characteristics & Role with Emphasis on Periodicals, Research Reports, etc.

• Secondary Sources of Information: Their Types & Characteristics–Bibliographies, Indexes and Abstracts, Encyclopaedia, Year books etc.

• Evaluation of Important Secondary Sources from the view of their Information Value

• Databases in Social Sciences Unit III

Information Centers and Organizations of Humanities and Sciences, Specific Roles of National and International Organizations

Unit IV

User Assessment, Resource Requirement and Information Retrieval. (i) Content Analysis; (ii) Condensation; (iii) Consolidation; (iv) Compilation; Information Seeking Behaviour of Different User Groups of Humanities and Social Science Discipline

**Engineering & Medical Sciences Information Systems and Services**

Unit I

Patterns of Development of Knowledge: Science, Technology, Engineering and Medical Science; Developments in Major Subjects of Engineering and Medical Science – Engineering, Computer Science, Information Technology, Medical Science, Nursing, Pharmacy; Agriculture) Unit II

Sources of Information in Science, Engineering and Medical Science

• Primary Sources of Information: Their Types, Characteristics & Role with Emphasis on Periodicals, Research Reports, Patents, Specifications etc.

• Secondary Sources of Information: Their Types & Characteristics–Bibliographies, Indexes and Abstracts, Encyclopaedia, Year books etc.

• Evaluation of Important Secondary Sources from the view of their Information Value Unit III

Information Centers and Organizations of Science, Engineering and Medical Science and Their Role; Agricultural Information System; Databases (Engineering; Medical; Agriculture); Medical Information System

Unit IV

User Assessment, Resource Requirement and Information Retrieval. (i) Content Analysis; (ii) Condensation; (iii) Consolidation; (iv) Compilation; Information Seeking Behaviour of Different User Groups of Engineering and Medical Science Discipline

**Tribal Information, Archive, and Museum**

Unit I

Tribal Community in India; Community Needs: Assessment and Planning; Governmental and Non-Governmental Information Sources and Services for Tribes; Tribal Library and Management Unit II

Tribal Information: Mission, Goal; Objectives

Traditional Knowledge; Content Curation; Budgeting and Financial Management; Cultural Heritage: Concept, Purpose and Management, Govt Initiatives to Promote Tribal Information, Culture and Heritage Unit III

Libraries and Tribal Community; Tribal Libraries and Information Centres in India; Digital Collection; Managing Audio Visual Collection; ICT Applications; Traditional Knowledge, Traditional Knowledge Management, Intellectual Property Rights in Traditional Knowledge Unit IV

Archives and Museums: Meaning and Purpose; Process of Developing Archives; Archiving Policies and Procedures; Functions and contents of Tribal Archives

Museums: Meaning and Purpose; Activities; Collections; Managing Museum Collection; Preservations; Cataloguing of Collection in Museums; User Services

National Museum, Tribal Research Center Assam, Namgyal Institute of Tibetology, etc (Local and National Importance), Assam Institute of Research for Tribals and Scheduled Cast, Assam

**Knowledge Management and Information Systems**

Unit I

Knowledge Management Concept and Scope – Definition, types, role, principles, tools, components and architecture. Types of Knowledge, KM Systems; Knowledge creation and knowledge architecture – Nonaka’s model. Unit II

Tools of Knowledge Management

Information Management Vs Knowledge Management; Role of Librarian in Knowledge Management; Information System – Meaning and Purpose

National and International Information Systems such as NIScPR, ENVIS, INIS, INSPEC, ERIC, Patent Information System, Biotechnology Information System (BIS), Agriculture Research Information System). Unit III

System analysis and design. Data and information management systems. Information consortium: National Knowledge Resource Consortium (NKRC), ERMED, CeRA (Consortium on e-Resource in Agriculture), DeLCON, e-ShodhSindhu, N-List. Managing knowledge workers Unit IV

Capturing tacit knowledge–methods; Knowledge codification– tools and procedures; Knowledge testing; Knowledge transfer. Knowledge Transfer and Sharing.

Bibliometrics, Informetrics and Scientometrics Course Code

Unit I

Introduction and need of metric studies in scholarly communication. Evolution of metric studies (From Librametrics to Knowledge geometry); Types of metrics eg: Bibliometrics, informetrics, Scientometrics, Webometrics, Altmetrics. Concept, need and types of scientific collaboration. Unit II

Law of scattering (Bradford’s law). Zipf’s law, Lotka’s law, Generalised bibliometrics distributions and Fitting of Informetrics models: Bradford’s curve, Leimkuhler’s distribution, etc.80-20 rules, Price’s law relating to scientific productivity, Aspects of concentration measures; Circulation Statistics. Unit III

Citation Analysis & Citation indexing. Journal level metrics (Impact Factor; SNIP; SJR); Impact Calculation - H and G Indexes calculation. Standard Citation Indicators (MOCR, FECR and MECR). Relative citation Indicators (NMCR and RCR); bibliographic coupling and co-citation analysis. Citation Databases: Scopus, Web of Knowledge, PubMed, Google Scholar. Author Level Metrics Unit IV

Growth and obsolescence of literature: Various growth models; the half-life analogy, Determinations of aging factor and half-life: real vs apparent; synchronous vs diachronous. Mapping and Science Indicators, Mapping of science, Science indicators. Alternative Metrics; Author Profile (Google Scholar; SCOPUS ID; ORCID; Researcher ID; IRINS), Mapping Software (HistCite, Publish or Perish, VOS Viewer, Bibliometric Analysis using Bibliometrix of R Programming)

**Public Library Systems & Services**

Unit I

Public Library: Concept, Need, features; objectives, and functions.

Public Library Movement in India – Post-Independence Period; Role of Government and other agencies in the Development of Public Libraries: UNESCO, IFLA, Raja Rammohun Roy Library Foundation and National Mission on Libraries including National Knowledge Commission. National Policy for Library Development in India, Library Legislation Unit II

Public Library: Organizational Structure; Administration; Financial Management. Human Resource Development & Management in Public Libraries. Staffing Pattern in Public Libraries. Evaluation of Public Library System. Unit III

Collection Development: Nature, Types, and Policies. Factors of Collection Development. Problems in Collection Development and Collection Organization. Electronic Resource Selection and Acquisition; Collection for Special Categories of Users: Children, Young Adults, Senior Citizens, Differently Abled People, Public Library Services. Unit IV

Services in Public Libraries; Resource Sharing in Public Libraries. Needs and Objectives of Resource Sharing. Integrated Public Library system. Case study of some of the prominent Public Libraries in India: National Library of India – Kolkata, The State Central Library - Mumbai, Kolkata & Sikkim, Connemara Public Library-Chennai; Delhi Public Library;

Khudabaksh Oriental public Library - Patna. Extension Services (Author talk, book clubs etc), Out reach services (mobile libraries)

**Academic Library Systems & Services**

Unit I

Academic Libraries: Concept, Need, Features; Objectives, and Functions. Post-Independence Development of Academic Libraries in India. Role of UGC and other Bodies in Promoting Academic Libraries in India. Unit II

Academic Library: Administration; Financial Management. Collection Development: Nature, Types (School, Higher Ed), and Policies. Factors of Collection Development. Problems in Collection Development and Collection Organization. Academic Library Services. Unit III

Human Resource Development & Management in Academic Libraries. Staffing Pattern in Academic Libraries. Evaluation of Academic Library System. Role of Academic Library in Accreditation and Ranking; Library Building Planning and Standards Unit IV

Resource Sharing in Academic Libraries. Needs and Objectives of Resource Sharing. Role of Library Networks and Consortia in promoting and strengthening Academic library system and services. Role of INFLIBNET Centre in Developing Academic Libraries (Specially in NE Region), Study of some of the prominent academic libraries in India: University Libraries (Central & State Universities).

**Special Library Systems & Services**

Unit I

Special Libraries: Concept, Need, Features; Objectives, and Functions. Development of special libraries in India. Role of Special Libraries Associations in promoting and strengthening Special Library system and services Unit II

Special Library: Administration; Financial Management. Collection Development: Nature, and Policies. Factors of Collection Development. Problems in Collection Development and Collection Organization. Special Library Services Unit III

Human Resource Development & Management in Special Libraries. Staffing Pattern in Special Libraries. Evaluation of Special Library System Unit IV

Resource Sharing in Special Libraries. Needs and Objectives of Resource Sharing. Research Sharing Networks: RLIN, OCLC, etc. Value of Information, Evidence-Based Librarianship. Study of some of the prominent special libraries in India: Legislative Libraries, Govt Libraries, Corporate Libraries, Library for Differently Abled Persons

**DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE**

**UNIVERSITY OF DELHI**

The Department offers the following programmes:

• ***Bachelor of Library and Information Science***

• ***Master of Library and Information Science***

• ***Master of Philosophy***

• ***Doctor of Philosophy***

**B.L.I.Sc.**

**LIBRARY, INFORMATION AND SOCIETY\***

**UNIT – I: Role of Libraries**

Library as a Social Institution

Development of Libraries in India

Role of Library and Information Centres in Modern Society

Five Laws of Library Science

**UNIT– II: Types of Libraries, Professional Associations and Organizations**

National Library of India: Concept, Functions and Services

Public Libraries, Academic Libraries and Special Libraries

Professional Associations: ILA, IASLIC, CILIP, ALA, Aslib, SLA

National and International Organizations: RRRLF, UNESCO and IFLA

Digital Libraries

**UNIT – III: Library Legislation**

Library Legislation: Need, Purpose, Objectives and Model Library Act

Library Legislation in India: Structure and Salient Features

Press and Registration Act

Delivery of Books (Public Libraries) Act

**UNIT – IV: Information and Communication**

Information: Characteristics, Nature, Value and Use of Information

Conceptual difference between Data, Information and Knowledge

Communication channels, models and barriers

National Knowledge Commission and Information Policy

Information Intermediaries

**UNIT – V: Library and Information Profession**

Professional Skills and Competencies

Professional Ethics11

Role of Library and Information Professionals in Digital Era

**LIBRARY CLASSIFICATION (Theory)**

**UNIT - I: Elements of Library Classification**

Concepts, Terminology

Need, Purpose and Functions

Species of Classification Schemes

**UNIT - II: Theory and Development**

Historical Development

General Theory: Normative Principles

Modes of Formation of Subjects

**UNIT – III: Approaches to Library Classification**

Postulational Approach and Systems Approach

Fundamental Categories, Facet Analysis and Facet Sequence

Phase Relation and Common Isolates

Devices in Library Classification

**UNIT – IV: Notation and Construction of Classification Number**

Notation: Need, Purpose, Types and Qualities

Call Number: Class Number, Book Number and Collection Number

Construction of Class Numbers

**UNIT – V: General and Special Classification Schemes**

Dewey Decimal Classification

Universal Decimal Classification

Colon Classification

Current Trends in Library Classification

**LIBRARY CLASSIFICATION (Practical)**

**UNIT – I: Colon Classification (Ed. 6)**

Introduction, Structure and Organisation

Steps in Classification

Classification of Documents with Basic Subjects

Classification of Documents with Compound Subjects

**UNIT – II: Dewey Decimal Classification (Latest Edition)**

Introduction, Structure and Organisation

Steps in Classification

Classification of Documents using Table 1 and 2

Use of Relative Index

**UNIT – III: Colon Classification (Ed. 6)**

Use of Common Isolates, Phase Relations and Devices

Classification of Documents with Compound and Complex Subjects

**UNIT – IV: Dewey Decimal Classification (Latest Edition)**

Classification of Documents

**BASICS OF INFORMATION TECHNOLOGY INLIS (Theory)**

**UNIT – I: Introduction to Computers**

Computers: Generations, Types, Input and Output Devices, Computer Architecture

Data Representation and Storage

Introduction to System Software and Application Software

Operating Systems: DOS, Window XP, Vista, Windows NT, Linux, etc.

Word Processing, Spreadsheets, PowerPoint Presentation

Graphics Software: Basic Functions and Potential Uses

Communication Software

**UNIT – II: Library Automation**

Library Automation: Planning and Implementation

In-house Operations: Acquisition, Cataloguing, Circulation, Serial Control, OPAC, etc.

Bibliographic Standards: CCF and MARC 21

Introduction to Metadata: Types of Metadata Dublin Core

Library Software Packages: Overview and House Keeping Operations

Case Studies: WINISIS, Alice for Windows and SOUL

**UNIT – III: Database Management Systems**

Database: Concepts and Components

Database Structures, File Organization and Physical Design

Database Management System: Basic Functions, Potential Uses

**UNIT – IV: Web Interface to WINISIS Databases**

Introduction to Web Interface: WWWISIS

Introduction to Web Servers: Apache Server and Internet Information Server

Web Interface Software: GENISIS

**UNIT – V: Introduction to Internet**

Basics of Internet

Search Engines and Meta Search Engines

Internet Search Techniques

E-resources and Online Databases

**BASICS OF INFORMATION TECHNOLOGY INLIS (Practical)**

**UNIT – I: Operating Systems and Application Software**

Installation and Functions of Different Operating Systems: Window XP, Vista, Windows NT, Linux

Setting of Desktop, Library Server and its Maintenance

Creating Presentations with PowerPoint

Editing and Formatting Word Documents

**UNIT – II: Database Creation and Library Software**

Installation and Creation of Databases: Import, Export, Hyperlinks and Printing of Records using WINISIS

Alice for Windows: Installation, Configuration and Functions

Installation, Configuration and Application of SOUL

**UNIT – III: Database Web Interface**

GENISIS: Installation, Configuration and Functions

Web Interface to WINISIS using GENISIS23 24

**UNIT – IV: Online and Offline Searching**

Web Searching

Advanced Internet Searching

Search through Meta Search Engines

Offline Databases

Internet and E-mail

**MANAGEMENT OF LIBRARY ANDINFORMATION CENTRES**

**UNIT – I: Principles of Library Management**

Management Vs Administration

General Principles and their Application

Library Organisation Structure and Library Governance

Library Planning: Need, Objectives and Procedures

Basics of Total Quality Management

**UNIT – II: Financial and Human Resource Management**

Library Finance and Sources of Finance

Library Budget, Budgeting and Accounting

Human Resource Management: Selection, Recruitment, Training, Development, Performance Appraisal

**UNIT – III: Library Building and Resources Management**

Library Building

Collection Development

Acquisition of Periodicals and Serials

Technical Processing of Documents

**UNIT – IV: Services and Maintenance of the Library**

Circulation Work

Maintenance Shelving and Stock Verification

Preservation

Library Services

Reference and Information Service

**UNIT – V: Library Records and Statistics**

Staff Manual

Library Statistics

Annual Report

**INFORMATION SOURCES AND SERVICES**

**UNIT- I: Fundamental Concepts**

Meaning, Definition, Importance, Nature and Characteristics

Printed and Electronic Information Sources

Types of Information Sources and Services

Criteria for Evaluation of Reference Sources

**UNIT- II: Sources of Information**

Primary Information Sources: General introduction (Periodicals, Conferences, Patents, Standards, Thesis/ Dissertations, Trade Literature etc.)

Secondary Information Sources: Dictionaries, Encyclopaedias, Biographical, Geographical, Bibliographies, Indexing and Abstracting, Newspaper Indexes and Digests, Statistics, Handbooks and Manuals

Tertiary Information Sources: Directories, Year books, Almanacs, Bibliography of Bibliographies, Union Catalogues.

**UNIT- III: Reference and Information Services**

Users and their Information Needs

Theory and Functions of Reference and Information Service

Enquiry Techniques

Role of Reference Librarian and Information Officer in Electronic Environment

**UNIT- IV: Types of Information Services**

Documentation Services: Abstracting and Indexing Services

Alerting Services, CAS, SDI, Reprographic Service, Translation Service,

Document Delivery and Referral Service

**LIBRARY CATALOGUING (Theory)**

**UNIT – I: Fundamental Concepts and Historical Developments**

Library Catalogue: Definition, Objectives, Purposes and Functions

History and Development of Library Catalogue Codes

Physical Forms of Catalogues

Types of Catalogues

**UNIT – II: Types of Catalogue Entries**

Kinds of Entries

Data Elements in Different Types of Entries

Filing of Entries in Classified and Alphabetical Catalogues

**UNIT – III: Choice and Rendering of Headings**

Personal Authors: Western and Indic Names

Corporate Authors

Pseudonymous, Anonymous Works and Uniform Titles

Non-Print Resources

**UNIT – IV: Subject Cataloguing**

Subject Cataloguing: Concept, Purpose and Problems

Chain Indexing

Subject Headings Lists: LCSH, SLSH

**UNIT –V: Trends in Library Cataloguing**

Centralized and Cooperative Cataloguing

Bibliographic Standards: ISBD, MARC, CCF, etc.

ISBN and ISSN

**LIBRARY CATALOGUING (Practical)**

Cataloguing of books using Classified Catalogue Code, 5th edition (with amendments) and AACR - II along with Sears List of Subject Headings (Latest edition)

**UNIT - I: Classified Catalogue Code**

Works of Single and Shared Authorship

Works of Mixed Responsibilities

Editorial Publications

Series Publications

Multi- volumed Works & Pseudonymous

**UNIT- II: Anglo American Cataloguing Rules (Latest Edition)**

Works of Single and Shared Authorship

Works of Shared Responsibilities

Editorial Publications

Multivolume and Pseudonymous

**UNIT - III: Classified Catalogue Code**

Works of Corporate Authorship

Works of Conflict of Authorship

Periodical Publications

Ordinary and Artificial Composite Books

**UNIT- IV: Anglo American Cataloguing Rules (Latest Edition)**

Works of Corporate Bodies

Serial Publications

**MASTER OF LIBRARY AND INFORMATION SCIENCE**

**INFORMATION SYSTEMS ANDPROGRAMMES\***

**UNIT – I: Information Systems and Organisations**

Information Organisation as a System: Basic Concepts, Types and Characteristics of an Information System

Kinds of Information System: Libraries, Documentation Centres and Information Centres

Data Centres, Information Analysis Centres, Referral Centres and Clearing Houses

Archives and Translation Pools: Functions and Services

**UNIT – II: National Information System and Policy**

Planning and Design of National Information System

National Information Policy National Information Systems: NISCAIR, DESIDOC, NASSDOC, SENDOC, NDCMC, ENVIS, etc.

**UNIT – III: Global Information Systems**

Programmes and Activities of UNESCO, UNISIST & IFLA, INIS, AGRIS, INSPEC & MEDLARS, etc.

**UNIT – IV: Resource Sharing, Library Networks and Library Consortia**

Programmes and Activities of INFLIBNET and DELNET

CSIR E-Journals Consortium, UGC-INFONET Digital Library Consortium

**UNIT – V: Information Services and Information Products**

Information Services

Literature Search

Documentation Services, Translation Services

CAS, SDI, Document Delivery Service, Alert Services and INTERNET Services

Information Products: Newsletter, In-house Journal, State of the Art Report, Trend Report, etc.

**ADVANCED KNOWLEDGEORGANISATION: CLASSIFICATION (Practical)**

**UNIT- I: Fundamentals of UDC**

Introduction to *Universal Decimal Classification* (Latest Edition): Structure, Principles and Organisation

Classification of Simple and Compound Subject Documents

**UNIT- II: Advance Applications of UDC**

Introduction to Common Auxiliaries and Special Auxiliaries

Application of Common Auxiliaries, Special Auxiliaries, Devices, etc.

Classification of Complex Subject Documents

**ADVANCED KNOWLEDGE ORGANISATION:CATALOGUING (Practical)**

Cataloguing of Non Book Material and Electronic Resources According to AACR (Latest Edition)

**UNIT–I: Non-Book Materials**

Complexities of Periodicals

Manuscripts

Cartographic Materials

Microforms Graphic Materials

**UNIT–II: Electronic Resources**

Sound Recordings29

Motion Pictures

Video Recordings

Computer Files

Web Resources

**INFORMATION AND COMMUNICATIONTECHNOLOGY APPLICATIONS IN LIS (Theory)**

**UNIT–I: Web Technologies in Libraries**

Implication of WWW on Library Websites, Web OPACs

Web 2.0 and Web 3.0: Features and Functions

Web Directories, Subject Gateways, Library Portals, etc.

Weblogs (blogs), Podcasts, RSS Feeds, Instant Messaging, Wikis, Flickr, etc.

**UNIT-II: Integrated Library Automation and Networking Software**

Open Source Library Software and Applications

Web based Library Management Software

Library Software Securities Parameters

Virtual Library

**UNIT–III: Multimedia and Institutional Repositories**

Multimedia Applications in Libraries

Image Creation using Photoshop and Corel Draw etc.

Institutional Repositories: Greenstone Digital Library, D space, and E-prints etc.

**UNIT–IV: Introduction of Networks**

Types of Networks: Network Components, Categories, LAN Standards and Inter-Network

Wireless Networking and Emerging Networking Technologies

Data Networks: Integrated Services Digital Network (ISDN), Digital Subscribers Line (DSL), Asynchronous Transfer Mode (ATM), etc. Network Software: Network Operating Systems, Domain Name System and Network Management Systems, etc.

OSI Network Model and TCP/IP Reference Model

**UNIT–V: Emerging Technologies in Libraries**

RSS Feeds Technology and Libraries

Library Security Technology: RFID, Barcode, Smart Card and CCTV, etc.

Video Conferencing and Audio Conferencing

Functional Requirements for Bibliographic Records (FRBR)

Digital Content Management System30

Federated Search and Multimedia Databases Search

Protocols: Z39.50 Standard for Retrieval and OAI-PMH

Artificial Intelligence and Libraries

Expert Systems in Libraries

**RESEARCH METHODOLOGY**

**UNIT–I: Introduction to Research**

Research: Concept, Need and Purpose

Research Problem and Research Design

Literature Review

Hypothesis: Definition, Types, Sources and Functions

**UNIT–II: Types of Research Methods**

Historical, Survey and Experimental

Case Study

Scientific Research and Statistical Research etc.

**UNIT–III: Research Techniques**

Research Techniques and Tools: Questionnaire, Interview, Observation, Schedule and Check-list, etc.

Library Records and Reports

**UNIT–IV: Statistics and its Applications**

Descriptive Statistics – Measures of Central Tendency: & Dispersion, Correlations and linear regression, Chi-Square test, t-test, z-test, f-test.51 52

Presentation of Data: Tabular, Graphic, Bar Diagram and Pie Chart, etc.

Report Writing

Statistical Packages – MS-Excel, SPSS, and Web-based Statistical Analysis Tools, etc.

**MARKETING OF LIBRARY ANDINFORMATION PRODUCTS AND SERVICES**

**UNIT–I: Fundamental Concepts**

Needs, Objectives and Philosophy

Marketing Environment: Producer, Consumer – Buyer Behaviour

Marketing Information System

Market Segmentation Marketing Mix

**UNIT–II: Strategies and Techniques**

Strategic Planning

Marketing Research

Marketing Process

**UNIT–III: Promotion of LIS Products and Services**

LIS Products and Services as a Marketable Commodity

Pricing, Distribution Channels and Communication Strategies

Advertising, Sales Promotion

Public Relations

Electronic Marketing

**UNIT–IV: Management Consultancy**

Evolution, Need and Objectives

Voluntary versus Authenticated Consultancy

Impact of Management Consultancy on Librarianship

**UNIT–V: Information Analysis, Consolidation and Re-Packaging**

Information Analysis and Consolidation: Concept, Need and Purpose

Packaging and Re-Packaging: Concept, Need, Purpose and Criteria

Information Consolidation Products: Concept, Types, Design and Development

**APPLICATIONS IN LIS (Practical)**

**UNIT–I: Website Designing and Navigational Tools**

Designing Static and Dynamic Library Websites

Designing Mobile Websites

Developing Web Directories, Subject Gateway and Library Portals

Designing and Developing Library Blogs, RSS Feeds, Wikis and Flickr etc.

Image Creation using Photoshop, Corel Draw etc.

**UNIT–II: Integrated Library Management Systems and Institutional Repositories**

Installation and Configuration, Hands on Functional Modules of an Integrated Library Management System (Open Source)

Web based Library Management Software

Installation and Configuration, Hands on Collection Building using GLI in Local and Web Library Modes and Metadata Creation

Customization of Green stone Digital Library Software

**UNIT–III: Audio and Video Conferencing**

Audio Conferencing

Video Conferencing

**UNIT–IV: Advanced Searching and Metadata Creation**

Downloading MARC 21 Records using Z39.50 Protocol

Federated Search

Creation of Metadata

**INFORMATION STORAGE AND RETRIEVALSYSTEM**

**UNIT–I: Fundamental Concepts**

Concept, Characteristics, Objectives, Types, Operations and Design

Compatibility of ISAR System

Information Retrieval Process and Search Strategy

Evaluation of ISAR System

Vocabulary Control Tools: Classification Schedules, Subject Heading Lists and Thesaurus

Need, Structure and Construction of Thesaurus

Principles and Evolution of Bibliographic Description

**UNIT–II: Knowledge Management**

Introduction to Indexing Systems

Introduction to Indexing in Corporate System

Introduction to Indexing in Research System

**UNIT–III: Bibliographic Description**

Rules for Bibliographic Description

Standards for Bibliographic Record Formats

Metadata Concept

Metadata Standards: Dublin Core, MARC 21, etc.

**UNIT–IV: Search Techniques and Information Retrieval**

Man and Machine Retrieval System

**INFORMATION LITERACY APPLICATIONSINLIS**

**UNIT–I: Fundamental of Information Literacy**

Concept, Need and Objectives

Areas of Information Literacy

Standards and Models in Information Literacy

Role of Institution in Information Literacy

**UNIT-II: Information Literacy Programmes**

Scope of Information Literacy Programme

National Programmes in Information Literacy

International Programmes in Information Literacy

**UNIT–III: Methodology of Information Literacy**

Information Literacy Products: Library Brochure, Database Brochure, Web based Access Instructions, Information Bulletin

Designing of Information Literacy Programme

Implementation of Information Literacy Programmes

**UNIT-IV: Application of Information Literacy in Library and Information Centres**

Information Literacy for Users

Information Literacy for Professionals

Information Literacy for Research and Development

**UNIT-V: Trends in Information Literacy**

Web based Information Literacy System

OPAC Information Literacy System

Life Long Learning System

**PUBLIC LIBRARY AND INFORMATIONSYSTEM**

**UNIT–I: Public Libraries and their Development**

Objectives and Functions

History and Development of Libraries with Special Reference to India

Role of Public Libraries in Society

Agencies and their Role in Promotion and Development of Public Libraries in India

**UNIT–II: Collection Development and Management**

Periodicals, Conference Literature, Grey Literature and Government Publications

Non-Book Materials

Electronic Sources and Online Databases

**UNIT–III: Library Organization and Administration**

Organizational Structure

Staff Manual, Library Surveys, Statistics and Standards, etc.

**UNIT–IV: Information Services**

CAS, SDI, Abstracting and Indexing Services

Library Bulletin, Newspaper Clipping Services

Computerized Services

Resource Sharing and Networking

**UNIT–V: Financial and Human Resource Management**

Determination of Finance, Sources of Finance

Types of Budget

Nature, Size, Selection, Recruitment, Qualification and Training

Responsibilities and Duties

Competency Development

**ACADEMIC LIBRARY AND INFORMATIONSYSTEM**

**UNIT–I: Academic Libraries and their Development**

Objectives and Functions

History and Development of Libraries with Special Reference to India

Role of Libraries in Formal and Non-Formal Education System

UGC and its Role in the Development of College and University Libraries

**UNIT–II: Collection Development and Management**

Periodicals, Conference Literature, Grey Literature and Government Publications

Non-Book Materials

Electronic Resources and Online Databases61 62

**UNIT–III: Library Organization and Administration**

Organizational Structure

Staff Manual, Library Surveys, Statistics and Standards etc.

**UNIT–IV: Information Services**

CAS, SDI, Abstracting and Indexing Services

Library Bulletin, Newspaper Clipping Services

Computerized Services

Resource Sharing and Networking: INFLIBNET, UGC-INFONET Digital Library Consortium, etc.

Information Literacy Programmes

**UNIT–V: Financial and Human Resource Management**

Determination of Finance, Sources of Finance

Types of Budget

Nature, Size, Selection, Recruitment, Qualification and Training

Responsibilities and Duties

Competency Development

**RESEARCH & TECHNICAL LIBRARY& INFORMATION SYSTEM**

**UNIT-I: Research and Technical Libraries and their Development**

Objectives and Functions

History and Development of Libraries with Special Reference to India

Role of Special Libraries and its Relationship with Parent Organization

Types and Functions of Special Libraries

Agencies and their Role in the Promotion and Development of Research and Technical Libraries

**UNIT-II: Collection Development and Management**

Periodicals, Conference Literature, Grey Literature, Patents, Standards, Specifications and Government Publications

**UNIT-IV: Planning and Organization of Various Information Services**

CAS, SDI, Abstracting and Indexing Services

Library Bulletin, Newspaper Clipping Services

Computerized Services

Resource Sharing and Networks: RLIN, OCLC etc.

**UNIT - V: Financial and Human Resource Management**

Determination of Finance, Sources of Finance

Types of Budget

Nature, Size, Selection, Recruitment, Qualification and Training

Responsibilities and Duties

Competency Development

**HEALTH SCIENCE LIBRARY ANDINFORMATION SYSTEM**

**UNIT–I: Health Science Libraries and their Development**

Objectives and Functions

History and Development of Libraries with Special Reference to India

Role of Medical Libraries

Information Policies in Health and Family Welfare

Agencies and their Role in the Promotion and Development of Medical Libraries in India

**UNIT–II: Collection Development and Management**

Periodicals, Conference Literature, Grey Literature, Patents, Standards, Specifications and Government Publications

Non-Book Materials

Electronic Resources and Online Databases

**UNIT–III: Library Organization and Administration**

Organizational Structure

Staff Manual, Library Surveys, Statistics and Standards etc.

**UNIT–IV: Information Services**

CAS, SDI, Abstracting and Indexing Services

Library Bulletin, Newspaper Clipping Services

Computerized Services

Resource Sharing and Networking

Information Literacy Programmes

**UNIT–V: Financial and Human Resource Management**

Determination of Finance, Sources of Finance

Types of Budget

Nature, Size, Selection, Recruitment, Qualification and Training

Responsibilities and Duties

Competency Development

**AGRICULTURAL SCIENCES LIBRARY& INFORMATION SYSTEM**

**UNIT–I: Agricultural Science Libraries and their Development**

Objectives and Functions

History and Development of Libraries with Special Reference to India

Role of ICAR, Committees and Other Agencies in the Development of

Agricultural Libraries in India

**UNIT–II: Collection Development and Management**

Periodicals, Conference Literature, Grey Literature, Patents, Standards, Specifications and Government Publications etc.

Non-Book Materials

Electronic Resources and Online Databases

**UNIT–III: Library Organization and Administration**

Organizational Structure

**UNIT–IV: Information Services**

CAS, SDI, Abstracting and Indexing Services

Library Bulletin, Newspaper Clipping Services

Computerized Services

Resource Sharing and Networking: AGRIS, INAGRIS, CABI, etc.

Information Literacy Programmes

**UNIT–V: Financial and Human Resource Management**

Determination of Finance, Sources of Finance

Types of Budget

Nature, Size, Selection, Recruitment, Qualification and Training

Responsibilities and Duties

Competency Development

**ENGINEERING &TECHNOLOGICALLIBRARY & INFORMATION SYSTEM**

**UNIT–I: Engineering and Technological Libraries and their Development**

Objectives and Functions

History and Development of Libraries with Special Reference to India

Role of Engineering and Technological Libraries

Role of Agencies in the Growth and Development of Engineering and Technological Libraries in India

**UNIT–II: Collection Development and Management**

Periodicals, Conference Literature, Grey Literature, Patents, Standards,

Specifications and Government Publications67 68

Non-Book Materials

Electronic Resources and Online Databases

**UNIT–III: Library Organization and Administration**

Organizational Structure

Staff Manual, Library Surveys, Statistics and Standards etc.

**UNIT–IV: Information Services**

CAS, SDI, Abstracting and Indexing Services

Library Bulletin, Newspaper Clipping Services

Computerized Services

Resource Sharing and Networking: INDEST – AICTE Consortium

Information Literacy Programmes

**UNIT–V: Financial and Human Resource Management**

Determination of Finance, Sources of Finance

Types of Budget

Nature, Size, Selection, Recruitment, Qualification and Training

Responsibilities and Duties

Competency Developmen

**PRINT, ELECTRONIC SOURCES &LITERATURE IN HUMANITIES**

**UNIT–I: Historical Development**

Scope of the Discipline and its Development

Research Trends in Humanities: Religion, Philosophy, Fine Arts and Literature

**UNIT–II: User Studies and Information Seeking Behaviour**

Information Needs of Users

Information Seeking Behaviour

User Studies: Importance, Objectives and Types

Planning User Survey

Methods of User Service

**UNIT–III: Information Sources and Evaluation**

Primary, Secondary and Tertiary Sources

Evaluation of Secondary Sources: Print and Electronic Resources

**UNIT–IV: Databases and Internet Services**

Networked and Distributed Databases

Consortia and Subject Gateways

Internet Resources and Services

**UNIT–V: Role of Contributors and Institutions**

Activities of Research Institutions and Professional Organisations in the Growth and Development of Humanities with Particular Reference to India, UK and USA

Contributions made by the Prominent Thinkers in the field of Religion, Philosophy, Fine Arts and Literature

**PRINT, ELECTRONIC SOURCES& LITERATURE IN NATURAL SCIENCES**

**UNIT–I: Historical Development**

Scope of the Discipline and its Development

Research Trends in Natural Sciences: Physical and Biological Sciences

**UNIT–II: User Studies and Information Seeking Behaviour**

Information Needs of Users

Information Seeking Behaviour

User Studies: Importance, Objectives and Types

Planning User Survey

Methods of User Service

**UNIT–III: Information Sources and Evaluation**

Primary, Secondary and Tertiary Sources

Evaluation of Secondary Sources: Print and Electronic Resources

**UNIT–IV: Databases and Internet Services**

Networked and Distributed Databases

Consortia and Subject Gateways

Internet Resources and Services

**UNIT–V: Role of Contributors and Institutions**

Activities of Research Institutions and Professional Organisations in the Growth and Development of Natural Sciences with Particular Reference to India, UK and USA

Contributions made by the Prominent Natural Scientists in the field of Physical and Biological Sciences

**PRINT, ELECTRONIC SOURCES& LITERATURE IN SOCIAL SCIENCES**

**UNIT–I: Historical Development**

Scope of the Discipline and its Development

Research Trends in Social Sciences: History, Political Science, Economics and Sociology

**UNIT–II: User Studies and Information Seeking Behaviour**

Information Needs of Users

Information Seeking Behaviour

User Studies: Importance, Objectives and Types

Planning User Survey

Methods of User Service

**UNIT–III: Information Sources and Evaluation**

Primary, Secondary and Tertiary Sources

Evaluation of Secondary Sources: Print and Electronic Resources

**UNIT–IV: Databases and Internet Services**

Networked and Distributed Databases

Consortia and Subject Gateways

Internet Resources and Services

**UNIT–V: Role of Contributors and Institutions**

Activities of Research Institutions and Professional Organisations in the Growth and Development of Social Sciences with Particular Reference to India, UK and USA

Contributions made by the Prominent Social Scientists in the field of History, Political Science, Economics and Sociology

**MASTER OF PHILOSOPHY (M.Phil.)**

**COURSE-I: RESEARCH METHODS**

Nature and role of research in library and information science.

Design of a scientific research study. Research methods and their application to library and information science

Collection and analysis of data: Statistical methods. Survey method

Experimental method. Analysis and interpretation of data. Writing of report including presentation of data

Case study of research methodology used in survey reports and other Studies of libraries/documentation centres/information centres, etc.47

**COURSE-II: LIBRARY PLANNING AND MANAGEMENT**

Planning methodology

Comparative analysis of recent managerial philosophies and practice with a special reference to attitudes, motivation, problem solving, decision making, organization theory, human relations, personnel management, etc.

Organization structures; Library system

Government of the library

Personnel management; Human relations in management, staffing, staff Development

Applications of system study techniques to library organizations and library Situations

Evaluation of library procedures and services. Time and motion studies Performance testing

Cost benefit analysis

Financial management

**COURSE-III (a): UNIVERSITY AND COLLEGE LIBRARY SYSTEM**

Changing perspective in higher education and their implication for development of libraries

Types of Universities (including Open University) and their impact on library Services

Current state of university and college libraries in selected developed and developing countries.

Library government: Constitution and powers

Changing patterns in library organizations: Library system structure and provision of services

Library Personnel

Library Finance : Cost benefit studies and analysis

Library collections : Use and evaluation

University and college : Their relationship with other library networks at

national and international levels

Library services : Their evaluation and effectiveness

Use of computers and other mechanical devices

Planning for future development Plans

**COURSE-III (b): RESEARCH AND TECHNICAL LIBRARYSYSTEM**

Changing perspectives in R & D and their implication for the development of libraries

Current state of research and technical libraries in selected developed and developing countries. NISSAT48

Library government : Constitution and power

Changing patterns in library organization : Library systems, Structure and provision of service

Library Personnel :

Library Finance : Cost benefit studies and analysis

Library Collection : Use and Evaluation

Research and technical library networks : Their relationship with other library networks at national and international levels

Library service : Their evaluation and effectiveness

Use of computers and other mechanical devices

Planning for future development : Preparation of development plans, case studies of selected research and technical libraries

**COURSE-III (c): PUBLIC LIBRARY SYSTEM**

Changing perspective in education and society and their implications for the development of Public Libraries

Current state of public libraries in selected development and developing countries

Library government : Constitution and power

Changing patterns in library organization : Library systems, Structure and provision of service

Library Personnel :

Library Finance : Cost benefit studies and analysis

Library Collection : Use and Evaluation

Research and technical library networks : Their relationship with other library networks at national and international levels

Library service : Their evaluation and effectiveness

Use of computers and other mechanical devices

Planning for future development : Preparation of development plans,

**COURSE-III (d): INFORMATION PROCESSING ANDORGANIZATION**

Classification : Recent development and trends for the future

Subject indexing : Critical study of the different lists of subject headings

The saurus and the sauro facets methodology for developing the saurus

Pre-coordinate and post-coordinate systems of subject indexing: PRECIS, POPSI.

Standards for bibliographical description : National and international Evaluation of information systems

**COURSE III (e): INFORMATION TRANSFER ANDDISSEMINATION**

Role of information in planning, decision making, management etc.

Information communication media and methods

Trends in communication of information

Barriers to communication

Information marketing

Information gathering habits of the users

Information services CAS, SDI, abstracting services, digests, technical notes, state-of the art and trend reports, etc. and their evaluation

Search strategy

Document delivery systems; translation; reprography

**COURSE-III (f): COMPARATIVE LIBRARIANSHIP**

Definition and scope of comparative librarianship. Librarianship in ancient, medieval and modern times.

Comparative study of library development of different library systems Merits and demerits of library systems

Issues in modern librarianship

**COURSE III (g): EDUCATION FOR LIBRARY ANDINFORMATION SCIENCE**

Sociology of library and information science education

Trends in library and information science education: National and International levels

Level of courses in education for librarianship and their objectives

Curriculum design: Methodology

Teaching techniques and evaluation of student performance

Faculty development

Development of research programme in library and information science

Manpower planning and its impact on library and information education programme.

**DOCTOR OF PHILOSOPHY (Ph.D.)**