

**SYLLABUS**  
**POST GRADUATE COURSE**  
**LIBRARY AND INFORMATION SCIENCE**  
**(SEMESTER SYSTEM)**  
**2024-2025**



**SCHOOL OF LIBRARY AND INFORMATION SCIENCE**  
**GANGADHAR MEHER UNIVERSITY,**  
**AMRUTA VIHAR**  
**SAMBALPUR-768004, ODISHA**

## Vision

To become a centre of excellence for imparting quality education in the field of library and information science and to prepare efficient skilled professionals who are ready to meet the technological challenges of contemporary ever-growing knowledge society with credibility, integrity and ethical standards.

## Mission

M1: The mission of the school is to impart technology-intensive skill-based quality education in the field of library and information Science to create capable and dynamic professionals who can meet evolving national and global challenges.

M2: It is the endeavour of the school to contribute in the construction of knowledge, enhance innovations, quality research, publications, team-spirit, digital literacy, ethical responsibilities and promote life-long learning.

M3: To provide learning ambience and empower students with essential skills in the use of emerging technology in libraries and information centres.

## **PEO Program Educational Objectives (PEOs)**

- 1. To provide a high-quality education in the discipline of Library and Information Science through class work, independent research and experiential learning that fosters scholarly and critical approaches to the understanding of issues and practices in LIS.**
- 2. To prepare students to select, evaluate, and use current and emerging information and communication technologies in constantly changing information workplaces.**
- 3. To equip students with an excellent academic environment to demonstrate high levels of communication skills, creativity, critical thinking, responsibility, teamwork and leadership in their career.**

## **Programme Outcomes (Pos)**

**PO-1: Disciplinary Knowledge:** Show a critical understanding of the most recent developments in the field and the capacity to apply accepted methods of analysis and inquiry within the subject domain. Gain a systematic, thorough, and coherent knowledge and understanding of their academic discipline as a whole, its applications, and links to related subject domain.

**PO-2: Professional skills:** Capacity to catalogue all document types using standard metadata and catalogue codes; Ability to classify simple, compound, and complex documents using standard classification schemes; Ability to perform housekeeping operations in Library; Ability to provide library and information services using information and communication technologies; Ability to search OPAC, Internet, and electronic databases for information.

**PO-3: Analytical thinking and problem solving:** Show that you can learn on your own and that you can think critically and analytically about a variety of concepts as well as intricate complex problem and issues.

**PO-4: Skilled Communicator:** Showcase proficient oral and written communication abilities to convey disciplinary knowledge and effectively convey the findings of research projects in a variety of settings by utilizing the key ideas, frameworks, and methodologies of the subject.

**PO-5: Research, Innovation and Ethics:** In order to produce a well-researched written work that engages with various sources using a range of disciplinary techniques and applicable scientific methods, one must demonstrate comprehensive knowledge about current research and innovation as well as acquire the techniques and skills necessary for identifying problems, issues, and scientific method applicable.

**PO-6: Digitally literate:** Able to utilize digital technology for online databases, OPAC, and housekeeping tasks in addition to communication and housekeeping functions in libraries.

**PO-7: Lifelong learners:** Able to learn at their own speed and with autonomy in order to advance personally; able to re-skill through ongoing education opportunities and enhance existing knowledge and skills.

**Programme Specific Outcomes (PSOs):** After completing this course the students will have some specific skills: -

**PSO-1** To exhibit knowledge, understanding and skill that offer job opportunities in different types of libraries and information centres.

**PSO-2** To inculcate in students the ability to acquire knowledge on research, analytical, scientific skills; teaching and communication skill; computer skills including information and digital literacy; and critical thinking through assignments, projects and internship.

**PSO-3** To develop conceptual and applied skill as well as competencies required for self-learning, effective problem solving and right decision making in relevant activities of libraries and information science profession.

**PSO-4** To demonstrate the practice of professional ethics and standards for societal and environmental well-being.

**Post Graduate  
Programme Structure  
School of Library and Information Science  
G.M. University, Sambalpur  
Syllabus 2024-25**

The Post Graduate Programme comprising two years, will be divided into 4 (four) semesters each of six months duration.

| <b>Year</b> | <b>Semesters</b> |             |
|-------------|------------------|-------------|
| First Year  | Semester I       | Semester II |
| Second Year | Semester III     | Semester IV |

The details of title of papers, credit hours, division of marks etc of all the papers of all semesters is given below.

1. There will be two elective groups namely:

- Discipline Specific Elective in Sem II.
- Interdisciplinary Elective in Sem III.

A student has to select one of the DSE paper in Sem II and one of the paper in Sem III as offered by the respective department at the beginning of semester II and semester III respectively.

2. Each paper will be of 100 marks out of which 70 marks shall be allocated for semester examination and 30 marks for internal assessment (Mid Term Examination).

3. There will be four lecture hours of teaching per week for each paper.

4. Duration of examination of each paper shall be three hours.

5. Pass Percentage:

- The minimum marks required to pass any paper shall be 40 percent in each paper and 40 percent in aggregate of a semester.
- No students will be allowed to avail more than three (3) chances to pass in any paper inclusive of first attempt.

**Semester-I:Part-I**

| Papers       |  | Marks    |          | Total Marks | Duration (Hrs) | Credit Points |
|--------------|--|----------|----------|-------------|----------------|---------------|
| Paper No     | Title  | Mid Term | End Term |             |                |               |
| 101          | Foundation of Library and Information Science                            | 30       | 70       | 100         | 40             | 4             |
| 102          | OrganizationofKnowledge–Classification Theory                            | 30       | 70       | 100         | 40             | 4             |
| 103          | OrganizationofKnowledge–Cataloguing Theory                               | 30       | 70       | 100         | 40             | 4             |
| 104          | Management of Library & Information Centres                              | 30       | 70       | 100         | 40             | 4             |
| 105          | OrganizationofKnowledge–Classification Practice and Cataloguing Practice | -        | 100      | 100         | 40             | 4             |
| <b>Total</b> |  |          |          | <b>500</b>  |                | <b>20</b>     |

**Semester-II:Part-I**

| Papers                    |   | Marks    |          | Total Marks | Duration (Hrs) | Credit Points |
|---------------------------|---|----------|----------|-------------|----------------|---------------|
| Paper No                  | Title   | Mid Term | End Term |             |                |               |
| 201                       | SearchStrategiesand Techniques  | 30       | 70       | 100         | 40             | 4             |
| 202                       | InformationSources& Services  | 30       | 70       | 100         | 40             | 4             |
| 203                       | BasicsofInformationandCommunication Technology & Application in Libraries | 30       | 70       | 100         | 40             | 4             |
| 204                       | PersonalityDevelopment&Communication Skill                                | 30       | 70       | 100         | 40             | 4             |
| 205                       | ICTandLibraryManagementSoftware-Practice                                  | -        | 100      | 100         | 40             | 4             |
| <b>DSEPapers*(Anyone)</b> |   |          |          |             |                |               |
| 206 A                     | Preservation&ConservationofLibrary Materials                              | 30       | 70       | 100         | 40             | 4             |
| 206 B                     | CommunityInformationService   | 30       | 70       | 100         | 40             | 4             |
| 206 C                     | InformationResourceDevelopment  | 30       | 70       | 100         | 40             | 4             |
| Total                     |   |          |          | 600         |                | 24            |

\*DisciplineSpecificElectivePaper. Anyonepaper canbeoptedby studentsof this Department.

**Semester-III:Part-II**

| Papers               |   | Marks    |          | Total Marks | Duration (Hrs) | Credit Points |
|----------------------|---|----------|----------|-------------|----------------|---------------|
| Paper No             | Title   | Mid Term | End Term |             |                |               |
| 301                  | Information Retrieval                               | 30       | 70       | 100         | 40             | 4             |
| 302                  | Digital Library and Content Management              | 30       | 70       | 100         | 40             | 4             |
| 303                  | Academic Library System                             | 30       | 70       | 100         | 40             | 4             |
| 304                  | Web Technologies                                    | 30       | 70       | 100         | 40             | 4             |
| 305                  | Internship and Content Management Software Practice | -        | 100      | 100         | 40             | 4             |
| <b>IDSE Papers**</b> |   |          |          |             |                |               |
| 306 A                | Intellectual Property Rights & Copyright            | 30       | 70       | 100         | 40             | 4             |
| 306 B                | Internet & Its Applications                         | 30       | 70       | 100         | 40             | 4             |
| 306 C                | Electronic Publishing (E-Publishing)                | 30       | 70       | 100         | 40             | 4             |
| 306 D                | Open Access & Scholarly Communications              | 30       | 70       | 100         | 40             | 4             |
| <b>Total</b>         |   |          |          | <b>600</b>  |                | <b>24</b>     |

\*\*Inter Discipline Specific Elective Paper. Anyone paper can be opted by students of other Departments.

**Semester-IV:Part-II**

| Papers           |                                    | Marks    |          | Total Marks | Duration (Hrs) | Credit Points |
|------------------|------------------------------------|----------|----------|-------------|----------------|---------------|
| Paper No         | Title                              | Mid Term | End Term |             |                |               |
| 401              | Research Methodology               | 30       | 70       | 100         | 40             | 4             |
| 402              | Information System and Networks    | 30       | 70       | 100         | 40             | 4             |
| 403              | Knowledge Management               | 30       | 70       | 100         | 40             | 4             |
| 404              | Information Literacy               | 30       | 70       | 100         | 40             | 4             |
| 405              | Dissertation/Project and Viva-voce | -        | 100      | 100         | 40             | 4             |
| <b>Total</b>     |                                    |          |          | <b>500</b>  |                | <b>20</b>     |
| <b>22 Papers</b> | <b>Grand Total</b>                 |          |          | <b>2200</b> |                | <b>88</b>     |

|                      |                         |                          |
|----------------------|-------------------------|--------------------------|
| <b>Employability</b> | <b>Entrepreneurship</b> | <b>Skill Development</b> |
|----------------------|-------------------------|--------------------------|

## Value Added Courses

| S. No | Value Added Courses                  | Course Code |
|-------|--------------------------------------|-------------|
| 1     | Management of E-Resources            | VLIS-001    |
| 2     | Library Automation and Digitization  | VLIS-002    |
| 3     | Digital Literacy                     | VLIS-003    |
| 4     | Academic Information Seeking and Use | VLIS-004    |

| Papers       |                                      | Marks    |          | Total Marks | Duration (Hrs) | Credit Points |
|--------------|--------------------------------------|----------|----------|-------------|----------------|---------------|
| Paper No     | Title                                | Mid Term | End Term |             |                |               |
| VLIS-001     | Management of E-Resources            | 60       | 40       | 100         | 30             | 2             |
| VLIS-002     | Library Automation and Digitization  | 60       | 40       | 100         | 30             | 2             |
| VLIS-003     | Digital Literacy                     | 60       | 40       | 100         | 30             | 2             |
| VLIS-004     | Academic Information Seeking and Use | 60       | 40       | 100         | 30             | 2             |
| <b>Total</b> |                                      |          |          | <b>400</b>  |                | <b>8</b>      |

### SEMESTER-I PART-I

**Paper No:** 101

**Paper Name:** FOUNDATION OF LIBRARY AND INFORMATION SCIENCE

| Credit Distribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|---------------------|---|---|---------------|----------|----------|-------------|
| L                   | T | P | L+T+P         | 30       | 70       | 100         |
| 3                   | 1 | 0 | 04            |          |          |             |

**Objectives:** 1. To acquaint the students with the basic concept and philosophy of Librarianship.  
2. To acquaint with the basic concept of Information Communication Technology.

**Course Outcomes:** After completion of the course, students will be able to CO-1

Understand the basic concept and philosophies of the subject.

CO-2 To analyse the role of professional associations.

CO-3 To apply the concept of data, information and knowledge

CO-4 To implement the different models and their application in information science.

**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

### **Unit 3: 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 4: Library and Information Users'**

- Information Users': Types and Characteristics
- Information Needs, Information Seeking Behaviour Models
- User Education & User Study
- Electronic/Digital Literacy

### **RECOMMENDED BOOKS**

1. Amudhavalli, & Singh, A. & J. (2010). *Challenges and changes in librarianship papers in honour of professor sewa singh in 2 vols.*
2. Brynteson, S., & Information, C. for N. (1991). *Information policies: A compilation of position statements, principles, statutes, and other pertinent statements.* Washington, D.C.: Coalition for Networked Information.
3. Esperanza, M. (1994). *Perspective of library movement in india: An account of various facets and phases of indian library movement and the work and contribution of prof. P.N. kaula, a tribute on his 71st birthday.*
4. Evans, W., & Baker, D. (2011). *Libraries and society: Role, responsibility and future in an age of change.* Elsevier.
5. Feather, J. (1998). *The information society: A study of continuity and change.* Library Assn Pub Limited.
6. Khan, R. (2006). *Introduction to library science.* SBS Publishers.



7. Khanna, J. K. (1987). *Library and society*. New Delhi: EssEss Publications.
8. Kumar, P. S. G. (2003). *Foundations of library and information science [vol. 1] Paper I of ugc model curriculum*.
9. Kumar, S. & Sah, Leena. (2000). *Public Library Act in India*, New Delhi: EssEss Publications.
10. McBride, P. K. (2003). *Career award information and communication technology: Foundation level*. Cambridge University Press.
11. Ngurtinkhuma, R. K. (2011). *Public library in india: Impact on socio-cultural and educational development of mizoram*.
12. Prasher, R. G. (1991). *Information and its communication*. New Delhi: Medallion Press.
13. Rai, A. N. (2000). *Communication in the digital age*. New Delhi: Author Press.
14. Ranganathan, S. R. (2006). *The five laws of library science*. Ess Ess Publication.
15. Rubin, R. E., & Rubin, R. G. (2020). *Foundations of library and information science: Fifth edition*. ALA Neal-Schuman.

CO-PO&PSO Mapping (P-101)

| PAPER CODE-LIS-101 Foundation of Library and Information Science |      |      |      |      |      |      |      |       |       |       |       |
|--|------|------|------|------|------|------|------|-------|-------|-------|-------|
|  | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1   | 1    | 3    | 1    | 3    | 2    | 2    | 3    | 2     | 1     | 1     | 2     |
| CO-2   | 3    | 2    | 1    | 1    | 3    | 2    | 1    | 3     | 1     | 3     | 1     |
| CO-3   | 2    | 1    | 2    | 1    | 2    | 1    | 3    | 2     | 3     | 2     | 1     |
| CO-4   | 1    | 2    | 3    | 2    | 1    | 3    | 1    | 1     | 2     | 1     | 3     |

**Paper No: 102**

**Paper Name: ORGANIZATION OF KNOWLEDGE – CLASSIFICATION THEORY**

| Credit Distribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|---------------------|---|---|---------------|----------|----------|-------------|
| L                   | T | P | L+T+P         | 30       | 70       | 100         |
| 3                   | 1 | 0 | 04            |          |          |             |

**Objectives:**

1. To apprise the students with the organization of knowledge with different basic concepts and philosophies of library classification.
2. Grasp the meaning of terms and their use in the theory and practice of library classification.

3. Know the different schemes of library classification being used today for the organization of knowledge.
4. Obtain an insight into the application of the postulation approach to library classification

Course Outcomes: After completion of the course students will be able: CO-1

Explain the nature and attributes of universe of knowledge.

CO-2 To Understand the functions of different classification schemes.

CO-3 Express the meaning, purpose, functions, theories, and canons of library classification. CO-4 To become aware of the recent trends and developments in Library Classification.

### **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

## **RECOMMENDED BOOKS**

1. Broughton, V. (2004). *Essential classification*. Facet Publishing.
2. Husain, S. (1993). *Library classification: Facets and analyses*. B. R. Publishing.
3. Kao, M. L., & Carter, R. C. (2003). *Cataloging and classification for library technicians*. Mumbai: Jaico.
4. Ranganathan, S. R. (2006). *Philosophy of library classification*. Ess Ess Publication.
5. Sonal, S. (1998). *Universe of knowledge: Structure & development*. Raj Publishing.
6. Sood, S. P. (1998). *Universe of Knowledge and Universe of Subjects*. G. Star Printers.

7. Dhiman, A. K., & Rani, Y. (2005). *Learn library management: Learning library science series*. Ess Ess Publication.
8. Kumar, P. S. G. (2003). *Knowledge organization, information processing and retrieval: Theory*. B. R. Publishing.
9. Jennex, M.E. (2008). *Knowledgemanagement: Concepts, methodologies, tools, and applications*. IGI Global.
10. Pathak, L.P. (2000). *Sociological terminology and classification schemes*. Mittal Publications.
11. Taylor, A.G., Joudrey, D.N., & Miller, D.P. (2015). *Introduction to cataloguing and classification*. Libraries Unlimited.

| PAPER CODE-LIS-102 Organization of Knowledge – Classification Theory |      |      |      |      |      |      |      |       |       |       |       |
|--|------|------|------|------|------|------|------|-------|-------|-------|-------|
|  | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1   | 1    | 2    | 2    | 2    | 1    | 2    | 2    | 1     | 2     | 1     | 2     |
| CO-2   | 3    | 3    | 2    | 1    | 3    | 3    | 1    | 2     | 1     | 3     | 1     |
| CO-3   | 2    | 1    | 3    | 3    | 2    | 2    | 2    | 3     | 3     | 2     | 3     |
| CO-4   | 2    | 3    | 2    | 2    | 1    | 1    | 3    | 3     | 1     | 1     | 1     |
| CO-5   | 2    | 1    | 3    | 3    | 2    | 1    | 3    | 1     | 3     | 2     | 1     |

**Paper No: 103**  
**Paper Name: ORGANIZATION OF KNOWLEDGE – CATALOGUING THEORY**

| Credit Distribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|---------------------|---|---|---------------|----------|----------|-------------|
| L                   | T | P | L+T+P         | 30       | 70       | 100         |
| 3                   | 1 | 0 | 04            |          |          |             |

**Objectives:**

1. To acquaint the students with the organization of knowledge with various concepts and philosophies of library cataloguing.
2. To explain different types of catalogues, Catalogue codes as well as Laws, Canons and Principles in the context of cataloguing.
3. To discuss the need and importance of bibliographic standards, filing rules and subject headings.
4. To describe different types of bibliographic record format and its importance.

Course Outcome: After studying this paper, students shall be able to:

CO-1 Recognize and understand the fundamental concepts of Library Cataloguing, various forms of catalogue, catalogue code, laws, canons, principles and its importance in knowledge organisation.

CO-2 Analyse the importance of catalogue codes, filing rules and subject headings in performing cataloguing work in libraries.

CO-3 Apply the knowledge of different standards of bibliographic description in information exchange.

CO-4 Implement knowledge of different forms of catalogue, catalogue code, bibliographic standards and bibliographic record format

### **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- MARC21, UNIMARC, CCF
- Cataloguing of E-Resources- Metadata Standards (Dublin Core)
- Derivatives of Cataloguing (Copy Cataloguing)

## **RECOMMENDED BOOKS**

1. Andrew, P. G. (2014). *Cataloguing sheet maps: The basics*. Routledge.
2. Association, A.L., Association, C.L., & Britain), C.I. of L. and I.P. (Great. (2004). *Anglo-American cataloguing rules*. Amer Library Assn.
3. Aswal, Rajinder Singh. (2004). *Marc 21: Cataloguing format for 21st century*. Ess Publication.

4. Carter, R. C., & Kao, M.L. (2020). *Cataloging and classification for library technicians, second edition*. Routledge.
5. Dhawan, K.S. (1997). *Online cataloguing systems*. Commonwealth Publication.
6. Dhiman, A. K. (2004). *Cataloguing of non book materials*. Ess Ess Publication.
7. Gredley, E., Hopkinson, A., Association, C. L., & Association, A. L. (1990). *Exchanging bibliographic data: MARC and other international formats*. Canadian Library Association; London: Library Association; Chicago: American Library Association.
8. Hagler, R. (1997). *The bibliographic record and information technology*. American Library Association.
9. Kumar, G., & Kumar, K. (2004). *Theory of cataloguing*. Delhi: Vikas Publishing House.
10. Leigh, Gernert. (2003). *A Text Book of Cataloguing*. (2003). Dominant Publishers.
11. Mitchell, A. M., & Surratt, B. E. (2005). *Cataloging and organizing digital resources: A how-to-do-it manual for librarians*. Neal Schuman Pub.
12. Roe, S. K. (2013). *The audiovisual cataloging current*. Routledge.
13. Singh, S. N., & Prasad, H. N. (1985). *Cataloguing manual AACR-II*. B. R. Publishers.
14. Sood, S. P. (1999). *Theory of Library Cataloguing*. Raj Publishing House
15. Taylor, A. G., Joudrey, D. N., & Miller, D. P. (2015). *Introduction to cataloging and classification*. Libraries Unlimited.
16. Viswanathan, C. G. (2008). *Cataloguing theory and practice: A guide to the student of library science*. Ess Ess.

| <b>PAPER CODE-LIS-103 Organization of Knowledge – Cataloguing Theory</b> |      |      |      |      |      |      |      |       |       |       |       |
|--|------|------|------|------|------|------|------|-------|-------|-------|-------|
|  | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1   | 3    | 3    | 2    | 1    | 2    | 1    | 1    | 3     | 2     | 3     | 3     |
| CO-2   | 3    | 3    | 2    | 1    | 2    | 2    | 1    | 3     | 1     | 2     | 1     |
| CO-3   | 3    | 3    | 3    | 1    | 3    | 2    | 2    | 3     | 1     | 2     | 1     |
| CO-4   | 3    | 3    | 3    | 1    | 3    | 2    | 2    | 3     | 2     | 2     | 2     |

**Paper No:**  
**Paper Name:**

**104**  
**MANAGEMENT OF LIBRARY & INFORMATION CENTERS**

| Credit Distribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|---------------------|---|---|---------------|----------|----------|-------------|
| L                   | T | P | L+T+P         | 30       | 70       | 100         |
| 3                   | 1 | 0 | 04            |          |          |             |

**Objective:** To apprise the students and make them aware of the various management techniques in organization of library & information centers.

**Course Outcomes:** After studying this paper, students shall be able to-

CO1 To remember the concept of modern Library & Information Centres.

CO2 To understand the Library and Information center resources and operations.

CO3. To analyze the skills of Library Professionals required by the Human Resources Managers. CO 4

To apply the financial rules and regulations for managing the Libraries after passing out.

### **Unit1: Management: Concept and Principles**

- Schools of Management Thought
- 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

### **Unit2: 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

### **Unit3: Human Resource Management**

- Organizational Structure
- Job Description and Analysis: Job – Evaluation
- Inter-Personal Relations
- Recruitment Procedures
- Motivation: Group Dynamics
- Training and Development
- Performance Appraisal

### **Unit4: Financial Resource Management**

- Resource Mobilization and Outsourcing
- Budgeting, Accounting and Auditing
- Budgetary Control

## **RECOMMENDED BOOKS**

1. Beardwell, I., & Holden, L. (1997). *Human resource management: A contemporary perspective*. Pitman Publishing.
2. Bryson, J. (1990). *Effective library and information centre management*. Jaico Pub. House
3. Drucker, P. F. (2001). *Management challenges for the 21st century*. Harper Business.
4. Evans, G. E. (2019). *Management basics for information professionals (2nd ed.)*. Libraries Unlimited.
5. Ginn, M. L., Smith, J. R., & Kallaus, N. F. (2004). *Records management (7th ed.) With disk and practice set with disk: (2 books with disks)*. South-Western Pub.
6. Johnson, P. (2009). *Fundamentals of collection development and management*. American Library Association.
7. Kotler, P. (2006). *Marketing management (11th ed.)*. Pearson.
8. Narayana, G. J. (1991). *Library and information management*. Prentice Hall of India.
9. Paton, P. R. A., & McCalman, J. (2008). *Change management: A guide to effective implementation*. SAGE.
10. Ramaswamy. (2009). *Marketing management: Global perspective, Indian context*. Macmillan.
11. Rowley, J. (2016). *Information marketing*. Routledge.
12. Stueart, R. D., Moran, B. B., & Morner, C. J. (2012). *Library and information center management, 8th edition*. ABC-CLIO.

| PAPER CODE-LIS-104 Management of Library & Information Centres |      |      |      |      |      |      |      |       |       |       |       |
|--|------|------|------|------|------|------|------|-------|-------|-------|-------|
|  | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1   | 1    | 2    | 1    | 2    | 1    | 1    | 1    | 2     | 1     | 3     | 1     |
| CO-2   | 3    | 2    | 3    | 3    | 2    | 1    | 3    | 2     | 2     | 2     | 3     |
| CO-3   | 2    | 3    | 2    | 1    | 2    | 3    | 2    | 1     | 3     | 1     | 2     |
| CO-4   | 1    | 1    | 2    | 3    | 3    | 2    | 3    | 3     | 3     | 2     | 3     |

**Paper No: 105**

**Paper Name: ORGANIZATION OF KNOWLEDGE – CLASSIFICATION PRACTICE AND CATALOGUING PRACTICE**

| Credit Distribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|---------------------|---|---|---------------|----------|----------|-------------|
| L                   | T | P | L+T+P         | -        | 100      | 100         |
| 0                   | 0 | 4 | 04            |          |          |             |

**Objectives:** To familiarize the students with the building class numbers of various titles using DDC and cataloguing of various types of library resources

Course Outcomes: After completion of the course students will be able:

CO-1 Develop practical knowledge to classify and catalogue library resources.

CO-2 Analyse and demonstrate the importance of classification, catalogue main entry, added entries and reference entries in cataloguing library materials.

CO-3 Implement the suitable principles of DDC for assigning class numbers to documents representing simple, compound, and complex subjects.

CO-4 Create catalogue for different types of libraries using AACR II (R) and use subject headings.

(A) Assigning Class Numbers representing Simple, Compound, Complex Subjects according to DDC (Latest available edition)

(B) 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)

(C) **Note:** In Practical Paper total marks will consist as under:  
End Term Examination – [A(50 marks) + B(50 marks) = 100 marks]

### RECOMMENDED BOOKS

- Association, A.L. (1999). *Anglo-American cataloging rules*. American Library Association.
- Bristow, B.A., & Farrar, C.S. (2014). *Sears list of subject headings*. H.W. Wilson.
- Dewey, M. (2011). *Dewey Decimal Classification and Relative Index: Relative index*. OCLC Online Computer Library Center.
- Dhyani, P. (2002). *Classifying with dewey decimal classification (ed. 19th and 20th)*. Ess Ess Publications.
- Kaushik, S. K. (2012). *Dewey decimal classification: A practical manual of 23rd edition*. Ess Ess Publication.
- Khan, M.T.M. (2005). *Anglo-American cataloging rules: AACR*. Shree Publishers.



- Kumar,K.,&Garg,B.S.(2005).Advancedcataloguingpractice:Basedonanglo- american cataloguing rules 2nd ed. Har-Anand Publications.
- Mortimer, M.(2007).Learndewey decimalclassificationfirstnorthamericanedition. Total Recall Publication Incorporated.
- Ranganathan,S.R.(1958).Classifiedcataloguecode:Withadditionalrulesfordictionary catalogue code. Sarada Ranganathan Endowment for Library Science.
- Ranganathan,S.R.,&Neelameghan,A.(2006).Classifiedcataloguecode:With additional rules for dictionary catalogue code. Ess Ess Publication.
- Satija,M.P.(2012).Exercisesinthe23rdeditionofdeweydecimalclassification.EssEss Publication.
- Satija, M. P. (2019). User's guide to sears list of subject headings. Rowman & Littlefield Publishers.
- Singh,S. N.,& Prasad,H. N.(1985). Cataloguingmanual AACR-II.B. R. Publishing.

|      | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
|------|------|------|------|------|------|------|------|-------|-------|-------|-------|
| CO-1 | 3    | 3    | 2    | 0    | 1    | 1    | 1    | 3     | 1     | 3     | 1     |
| CO-2 | 3    | 3    | 2    | 0    | 1    | 1    | 1    | 3     | 1     | 3     | 1     |
| CO-3 | 3    | 3    | 3    | 0    | 1    | 3    | 1    | 3     | 0     | 2     | 0     |
| CO-4 | 3    | 3    | 3    | 0    | 1    | 3    | 1    | 3     | 0     | 2     | 0     |

## SEMESTER-II

### PART-I

**PaperNo:** 201

**Paper Name:** SEARCHSTRATEGIESANDTECHNIQUES

| CreditDistribution |          |          | Total Credits | Mid-Term  | End-Term  | Total Marks |
|--------------------|----------|----------|---------------|-----------|-----------|-------------|
| <b>L</b>           | <b>T</b> | <b>P</b> | <b>L+T+P</b>  | <b>30</b> | <b>70</b> | <b>100</b>  |
| <b>3</b>           | <b>1</b> | <b>0</b> | <b>04</b>     |           |           |             |

**Objective:** Toacquaintthestudentsaboutthedifferenttypesofsearchstrategiestofind information online and the indexing techniques.

CourseOutcomes:Afterstudyingthis paper,studentsshall beable to:

CO-1 Understand the fundamental concepts of search strategies, search techniques, vocabulary control tools and its importance in information searching and retrieval.

CO-2 Demonstrate the features and functionalities of different online searching tools, federated searching, web searching and automatic indexing

CO-3Analysedifferentkindofindexingsystem,vocabularycontroltoolsandlearnsitsapplication. CO-4Implementtheknowledgeofonlinesearching,searchingtools,vocabularycontroltoolsand different indexing system.

### **Unit-1:Search Strategies**

- SearchStrategies:Concept,Need,Development
- ProcessforSearching:Preparingtosearch, FeedbackandRefining
- BasicSearchTechniques:WordandPhrase,Boolean,Truncation,Proximity,Field, Metadata, Limit Search Techniques

### **Unit-2: Online Searching**

- OnlineSearchingandRetrieval:Definition,Historicaldevelopment,basicfeatures; Searching vs. browsing
- OnlineSearchtools:SearchEngines- PrimarySearchEngines,MetasearchEngines,Focusedcrawler-basedsearchenginesandDirectories,SubjectGateways
- GoogleSearchtoolsand techniques,
- Federated search: Concept, Need, Functions, Advantages, Disadvantages, Federated Search Engine vs Meta search engine; Cluster Based Web search

### **Unit-3:IndexingLanguageandVocabularyControl**

- IndexingLanguage:TypesandCharacteristics
- VocabularyControl:DefinitionandPurpose.ToolsofVocabularyControl
- Thesaurus:StructureandFunction;Design/ConstructionofThesaurus.

(Printed material)

### **Unit-4:Indexing techniques**

- Pre-Coordinate&PostCoordinate Indexing,
- AssignedIndexingvsDerivedIndexing
- AssignedIndexingSystems:Pre-Coordinate(PRECIS,POPSIandChain Indexing)
- DerivedIndexingSystems:KeywordIndexing(KWIC,KWOCand KWAC)
- AutomaticIndexing:Conceptand Process;ManualvsAutomatic Indexing
- AutomaticTermExtractionandWeighing,AutomaticTextRetrieval

## **RECOMMENDED BOOKS**

1. Bobick, J. E., & Berard, G. L. (2011). *Science and technology resources: A guide for information professionals and researchers*. ABC-CLIO.
2. Borowick, J. N. (2000). *Technical communication and its applications*. Prentice Hall; 2nd edition (June 11, 1999).
3. Burroughs, S., Brocato, K., Hopper, P. F., & Sanders, A. (2009). Media literacy: A central component of Democratic citizenship. *The Educational Forum*, 73(2), 154–167. <https://doi.org/10.1080/00131720902739627>
4. Chowdhury, G. G., & Chowdhury, S. (2001). *Searching CD-ROM and online information sources*. Library Assn Pub Limited.
5. Foskett, A. C. (1996). *The subject approach to information*. Facet Publishing.

6. Guha, B. (1983). *Documentation and information: Service, techniques and systems* (2nd ed.). World Press.
7. Hague, B. N., & Loader, B. D. (2005). *Digital democracy: Discourse and decision making in the information age*. Routledge.
8. Hutchins, J. (1997, May). Translation technology and the translator. In *Proceedings of the Eleventh Conference of the Institute of Translation and Interpreting* (pp. 113-120).
9. Kent, A., Lancour, H., & Daily, J. E. (1978). *Encyclopedia of Library and Information Science: Volume 24 - Printers and Printing: Arabic Printing to Public Policy: Copyright, and Information Technology*. CRC Press.
10. Lancaster, F. W. (1979). *Information retrieval systems: Characteristics, testing, and evaluation*. New York ; Toronto : Wiley.
11. Large, J. A., Tedd, L. A., & Hartley, R. J. (1999). *Information seeking in the online age: Principles and practice*. K G Saur Verlag GmbH & Company.
12. McGrath, M. (2004). Interlending and document supply: A review of recent literature – XLVIII. *Interlending & Document Supply*, 32(1), 50–54. <https://doi.org/10.1108/02641610410520279>
13. Mitchell, E., & Walters, S. (1994). *Document delivery services: Issues and answers*. Information Today.
14. Rowley, J. E. (1998). *The electronic library*. Library Assn Pub Limited.
15. Saracevic, T., Spink, A., & Wu, M.-M. (1997). Users and intermediaries in information retrieval: What are they talking about? In *User Modeling* (pp. 43–54). Springer Vienna. [http://dx.doi.org/10.1007/978-3-7091-2670-7\\_6](http://dx.doi.org/10.1007/978-3-7091-2670-7_6)
16. Singer, C. A. (2012). *Fundamentals of managing reference collections*. American Library Association.
17. Walford, A. J., Harvey, A. P., & Drubba, H. (1980). *Walford's guide to reference material*. London : Library Association.
18. Walford, A. J. (1993). *Walford's Guide to Reference Material: Science and technology*. London : Library Association.

| PAPER CODE-LIS-201 Search Strategies and Techniques |      |      |      |      |      |      |      |       |       |       |       |
|---|------|------|------|------|------|------|------|-------|-------|-------|-------|
|   | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1  | 3    | 3    | 1    | 0    | 1    | 2    | 3    | 3     | 2     | 2     | 2     |
| CO-2  | 3    | 3    | 2    | 1    | 1    | 2    | 3    | 3     | 2     | 3     | 0     |

|      |   |   |   |   |   |   |   |   |   |   |   |
|------|---|---|---|---|---|---|---|---|---|---|---|
| CO-3 | 3 | 3 | 1 | 0 | 2 | 1 | 2 | 3 | 1 | 3 | 0 |
| CO-4 | 3 | 3 | 1 | 0 | 2 | 1 | 2 | 3 | 1 | 3 | 1 |

**PaperNo:** 202  
**Paper Name:** INFORMATION SOURCES & SERVICES

| Credit Distribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|---------------------|---|---|---------------|----------|----------|-------------|
| L                   | T | P | L+T+P         | 30       | 70       | 100         |
| 3                   | 1 | 0 | 04            |          |          |             |

**Objective:** To acquaint the students about the different types of information sources with their specific features and characteristics.

Course Outcomes: After completion of the course students will be able to CO-

1. Understand the various types of Information resources.

CO-2. Analyze the importance of various E-Resources and their use in the library.

CO-3. Apply the various types of information services provided to users.

CO-4. Implement and use the various types of collaborative service platform..

### 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, Fulltext Databases, Bulletin Boards, Discussion Groups/Forums
- Open Access Resources, ListServes, Social Networking Sites

### Unit 3: 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 4: 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

### RECOMMENDED BOOKS

1. Association, L. (1984). *Printed reference material*. London: Library Association.

2. Chowdhury, G. G., & Chowdhury, S. (2001). *Information sources and searching on the world wide web*. Library Assn Pub Limited.
3. Guha, B. (1978). *Documentation and information: Services, techniques and systems*. World Press.
4. Gupta, , S. (Ed.). (2012). *Innovative Challenges in Information Services: Changing ParadigmforthesustenanceofLibraryandInformationCentersintheDigitalEra*.Kutub Publishers.
5. Kumar,K.(1989).*Referencervice*.VikashPublication.
6. Lancaster, F. W. (1998). *Indexing and abstracting in theory and practice*. University of Illinois, Graduate School of Library & Information Science.
7. London:Library Association.
8. Padhi, P. (1994). *Reference sources in Modern Indian Languages: A study on Oriya language*. Gayatridevi Publication.
9. Panda, K. C., & Gautam, J. N. (1999). *Information Technology on the Cross Road from Abacus to Internet*. Y. K. Publishers.
10. Ranganathan,S. R.(2006). *Referencervice*. EssEss Publication.
11. Riordan,D.(2013).*Technicalreportwritingtoday*.Cengage Learning.
12. Seetharama, S. (1997). *Information consolidation and repackaging: Framework methodology planning*. Ess Ess Publications.
13. Singer,C.A.(2012).*Fundamentalsofmanagingreferencecollections*.AmericanLibrary Association.
14. Walford,A.J. (1993).*Walford'sGuidetoReferenceMaterial:Scienceand technology*.
15. Walford,A.J.,Harvey,A.P.,&Drubba,H.(1980).*Walford'sguidetoreferencematerial*. London : Library Association.

CO-PO&PSOmapping(P-202)

| PAPERCODE-LIS-202InformationSources&Services |      |      |      |      |      |      |      |       |       |       |       |
|--|------|------|------|------|------|------|------|-------|-------|-------|-------|
|  | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1   | 1    | 2    | 1    | 2    | 1    | 1    | 1    | 2     | 1     | 3     | 1     |
| CO-2   | 3    | 2    | 3    | 3    | 2    | 1    | 3    | 2     | 2     | 2     | 3     |
| CO-3   | 2    | 3    | 2    | 1    | 2    | 3    | 2    | 1     | 3     | 1     | 2     |
| CO-4   | 1    | 1    | 2    | 3    | 3    | 2    | 3    | 3     | 3     | 2     | 3     |

**PaperNo: 203**  
**Paper Name: BASICS OF INFORMATION AND COMMUNICATION TECHNOLOGY&APPLICATION IN LIBRARIES**

| Credit Distribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|---------------------|---|---|---------------|----------|----------|-------------|
| L                   | T | P | L+T+P         | 30       | 70       | 100         |
| 3                   | 1 | 0 | 04            |          |          |             |

**Objectives:** To train the students with the basics structure of Information and Communication Technology and use of library software for record management and dissemination.

**Course Outcomes:**

CO1 To remember the basic knowledge about computers and how they are used in Libraries

CO2 To understand the benefits of Computer Technology, Communication Technology, Library Automation software packages.

CO 3 To apply the difference between traditional Library System and integrated library system by the use of computers.

CO4. To evaluate the working knowledge of various types of Library Software Packages and how they are used in Libraries.

**Unit 1: Computer Technology**

- Evolution of Digital Computers;
- Number systems;
- Character Representation: ASCII, ISCII and UNICODE;
- Basic Components of a Computer: Arithmetic Logic Unit;
- Control Unit; Memory Unit; Input /Output devices;
- System Software; Application software.
- Operating Systems: Linux, Windows;
- Introduction to Programming Languages

**Unit 2: Introduction to Communication Technology**

- Tele-communication: Transmission Media, ISDN, PSDN, Multiplexing,
- Modulation, Standards and Protocols,
- Wireless Communication; Networking: Topology and levels of networks, Network protocols, Network Models (OSI),
- Tools and Devices. Hardware requirements

**Unit-3: Library Automation**

- History and Development of Library Automation

- Planning and implementation
- Automation of in-house operations
- Requirements for Acquisition, Cataloguing, Circulation control, Serials Control, OPAC
- Library Security Technology: Barcode, QR Code, RFID, CCTV, Biometrics, Smartcard

#### **Unit-4: Library Automation Packages**

- History, Evolution and Generations of Packages
- Commercial Software Packages: LIBSYS, SOUL 2.0, SLIM
- Open-Source Software Packages: KOHA, NEWGENLIB, E-GRANTHALAYA
- Evaluation of Software Packages

#### **RECOMMENDED BOOKS**

1. Arora, A., & Bansai, S. (2002). *Computer fundamentals*. Excel Books.
2. Atul, K. (2004). *Introduction to database management systems*: Pearson Education India.
3. Babu, Dr. B. R., & Gopalakrishnan, Dr. S. (2004). *Information, communication, library, and community development: Festschrift in honour of prof. C.P. vashishth*. B. R. Publishing.
4. Bach, M. J. (1986). *The design of the UNIX operating system*. Pearson.
5. Basandra, S. K. (1998). *Computer Today*. Galgotia Publications.
6. Bilal, D. (2014). *Library automation: Core concepts and practical systems analysis, 3rd edition: Core concepts and practical systems analysis*. ABC-CLIO.
7. Brown-Syed, C. (2011). *Parents of Invention: The development of library automation systems in the late 20th century: The development of library automation systems in the late 20th century*. ABC-CLIO.
8. Date, C. J. (2006). *An introduction to database systems*. Pearson Education India.
9. Doyle, S. (2015). *Complete ICT for Cambridge IGCSE®*. Oxford University Press - Children.
10. Doyle, S. (2015b). *Complete ICT for Cambridge IGCSE® revision guide*. Oxford University Press - Children.
11. Goel, A. (2010). *Computer fundamentals*. Pearson Education India.
12. Gopal, K. (2005). *Modern library automation*. Authors Press.
13. Grewal, G. (2004). *Handbook of library security*. Dominant.

14. Jain,M.,Jain,&Singh,S.(2003).*Introductiontodatabasemanagement*.BPB Publications.
15. Jha,J.,Mahanti,P.K.,&Sahoo,L.(1996). *Elementsofcomputerscience*. AlphaScience International, Limited.
16. Kochtanek,T.R.,&Breeding,M.(2017).*Libraryinformationsystems:Fromlibrary automation to distributed information access solutions, 2nd edition*. Libraries Unlimited.
17. Kochtanek, T. R., & Matthews, J. R. (2002). *Library information systems: From library automation to distributed information access solutions*. Greenwood.
18. Kumar,P.S.G.(2004).*Informationandcommunication:Paperixofugcmodel curriculum*. B.R. Publisher.
19. Leon,A. (2009a). *Databasemanagementsystems, 1E*. Vijan Nicole.
20. Matthew,N., &Stones, R.(2011).*Beginninglinuxprogramming*.John Wiley&Sons.
21. Petersen,R.(2007).*Linux:Thecompletereference(withcd)*.TataMcGraw-Hill Education.
22. Reddy, S., Balakrishnan, S., & Paliwal, P. K. (2001). *Automated management of library collections*. Ess Ess Publications.
23. Redmond,E.,&Wilson,J.R.(2012).*Sevendatabasesinsevenweeks:Aguidetomodern databases and the nosql movement*. Shroff.
24. Shotts,W. (2019).*TheLinuxCommand Line:A CompleteIntroduction*. No Starch Press.
25. Shuman, B. A. (1999). *Library security and safety handbook: Prevention, policies, andprocedures*. American Library Association.
26. Silberschatz,A.,Gagne, G.,&Galvin, P.B.(2018). *Operatingsystemconcepts*.Wiley.
27. Silberschatz,A.,Korth,H.F.,&Sudarshan,S.(2011).*Databasesystemconcepts*.McGraw-Hill Education.
28. Siwatch,A. S.(2006). *Newapproaches tomodern librarianship*. Sanjay.
29. Stallings. (2003). *Computer networking with internet protocols and technology*. Pearson Education India.
30. Sujatha,G.(1999).*Resourcesharingandnetworkingofuniversitylibraries*.EssEss Publications.
31. Sybex.(2007).*Linux complete*.BPB Publications.
32. Ward, B. (2014). *How linux works, 2nd edition: What every superuser should know*. No Starch Press.



33. Ward, B. (2021). *How linux works, 3rd edition: What every superuser should know*. No Starch Press.
34. Wilson, K. (2016). *Essential computing: Concepts of ICT*. Elluminate Press.

CO-PO&PSO mapping (P-203)

| PAPERCODE-LIS-203 Basics of Information and Communication Technology & Application in Libraries |      |      |      |      |      |      |      |       |       |       |       |
|---|------|------|------|------|------|------|------|-------|-------|-------|-------|
|   | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1  | 3    | 2    | 1    | 3    | 2    | 3    | 2    | 2     | 3     | 3     | 2     |
| CO-2  | 2    | 3    | 1    | 2    | 2    | 3    | 2    | 3     | 2     | 3     | 3     |
| CO-3  | 2    | 2    | 1    | 2    | 2    | 3    | 2    | 3     | 3     | 3     | 2     |
| CO-4  | 3    | 2    | 1    | 2    | 1    | 2    | 3    | 2     | 2     | 2     | 3     |

**PaperNo: 204**

**Paper Name: PERSONALITY DEVELOPMENT & COMMUNICATIONS SKILL**

| Credit Distribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|---------------------|---|---|---------------|----------|----------|-------------|
| L                   | T | P | L+T+P         | 30       | 70       | 100         |
| 3                   | 1 | 0 | 04            |          |          |             |

**Objective:**

1. To develop communication skills as well as positive personality traits
2. Developing effective communication skills (spoken and written) and presentation skills.
3. Become self-confident individuals by mastering interpersonal skills, team management skills, and leadership skills and function effectively in different circumstances.
4. Development of broad career plans, evaluate the employment market, identify the organizations to get good placement, match the job requirements and skill sets.

Course Outcomes: After completion of the course students will be able:

CO1. Effectively communicate through verbal/oral communication and improve the listening skills

CO2. Write precise briefs or reports and technical documents, actively participate in group discussion / meetings / interviews and prepare & deliver presentations.

CO3. Become more effective individual through goal/target setting, self-motivation and practicing creative thinking.

CO4. Function effectively in multi-disciplinary and heterogeneous teams through the knowledge of team work, Inter-personal relationships and conflict management 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 Liaison 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

### **RECOMMENDED BOOKS**

1. Aitchison, J. (2004). *Teach yourself linguistics*. McGraw-Hill.
2. Booth, P. F. (1991). *Report writing*. Huntington.
3. Chandler, H. E. (1983). *Technical writer's handbook*. Asm International.
4. Cooper, B. M. (1964). *Writing technical reports*. Penguin UK.
5. Gerson. (2007). *Technical writing: Process and product, 5/E*. Pearson Education India.
6. Gladis, S. D. (1993). *Write type: Personality types and writing styles*. Human Resource Development.
7. Harrison, C. (1980). *Readability in the classroom*. Cambridge University Press.
8. Huckin, T. N., & Olsen, L. A. (1991). *Technical writing and professional communication: For nonnative speakers of English*. McGraw-Hill Humanities, Social Sciences & World Languages.
9. James, G. G. (1986). *Strategies and skills of technical presentations*. Greenwood Press.
10. Karten, N. (2010). *Presentation skills for technical professionals: Achieving excellence*. Itgp.
11. Masters, A., & Wallace, H. R. (2010). *Personal development for life and work*. Cengage Learning.
12. McMurry, J. H. (2002). *The etiquette advantage: Personal skills for social success*. Stellar Publications.
13. S. G. (2009). *Personality development and communication skills*. Book Enclave.

14. Saxena, T. P., & Arvinda, C. (1979). *Style manual for writing theses, dissertations and papers in social sciences by Arvinda Chandra and T P Saxena*. Metropolitan Books.
15. Sherman, T. A., & Johnson, S. S. (1975). *Modern technical writing*. Prentice Hall.
16. Swain, D. V., & Swain, J. R. (1991). *Scripting for the new AV technologies*. Taylor & Francis.
17. Van Alstyne, J. S. (1999). *Professional and technical writing strategies: Communicating in technology and science*. Prentice-Hall Inc.
18. Weisman, H. M. (1992). *Basic technical writing*. Prentice Hall.

CO-PO&PSO mapping (P-204)

| PAPER CODE-LIS-204 Personality Development & Communication Skill |      |      |      |      |      |      |      |       |       |       |       |
|--|------|------|------|------|------|------|------|-------|-------|-------|-------|
|  | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1   | 1    | 2    | 1    | 2    | 1    | 1    | 1    | 2     | 1     | 3     | 1     |
| CO-2   | 3    | 2    | 3    | 3    | 2    | 1    | 3    | 2     | 2     | 2     | 3     |
| CO-3   | 2    | 3    | 2    | 1    | 2    | 3    | 2    | 1     | 3     | 1     | 2     |
| CO-4   | 1    | 1    | 2    | 3    | 3    | 2    | 3    | 3     | 3     | 2     | 3     |

**Paper No: 205**  
**Paper Name: ICT and Library Management Software-Practice**

| Credit Distribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|---------------------|---|---|---------------|----------|----------|-------------|
| L                   | T | P | L+T+P         | -        | 100      | 100         |
| 3                   | 1 | 0 | 04            |          |          |             |

**Objective:**

1. To train the students with the use of office automation software.
2. To provide hands-on practice on free and open-source library automation software packages.

Course Outcomes: After completion of the course students will be able:

CO-1 Understand the fundamental concepts of computer applications software, programming language, Database management system Ms-office and library automation software.

CO-2 Demonstrate the features and functionalities of MS-Word, MS-Excel, MS-PowerPoint, Ms-Access and different library automation software.

CO-3 Analyse different kind of library automation software and hands-on practice in learning to use koha, e-Granthalaya and Newgenlib software.

CO-4 Implement the knowledge of Ms-office, programming languages, Database management system and library automation software.

**Unit1:Useof systemsoftwareand application software**

- Windows-10, Linux
- MS-Word,MS-Excel,MS-PowerPoint

**Unit2:Handsonexperiencewithlibraryautomationsoftware(any one)**

- Newgenlib
- E-Granthalaya
- Koha

**Unit3:Programminglanguageand databases**

- BasicProgramminginHTML
- DBMS (MS-Access)

**Unit4:Viva-Voce**

**Note:**InPracticalPapertotalmarkswillconsistasunder:

EndTermExamination= RecordAssignment(30Marks)+Computer Practice(50marks)  
+Viva-voce(20 marks) =100 marks

**RECOMMENDED BOOKS**

1. Mukhopadhyay,P.Libraryautomation–softwarepackages–MLII104(ICTapplications– Part 1), MLIS, IGNOU, 2006.
2. Mukhopadhyay,P.Libraryautomationpackages -introduction–BLII003,Block1,Unit1 of CICTAL course, IGNOU, 2005
3. Shotts,WilliamsE. (2012).TheLinux CommandLine– ACompleteIntroduction.
4. Silberschatz,A.(2005).OperatingSystemConcepts. Wiley
5. Silberschatz.(2013). DatabaseSystemConceptsPaperback. McGrawHill.

**CO-PO&PSOmapping(P-205)**

| <b>PAPERCODE-LIS-205ICTandLibraryManagementSoftware-Practice</b> |      |      |      |      |      |      |      |       |       |       |       |
|--|------|------|------|------|------|------|------|-------|-------|-------|-------|
|  | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1   | 1    | 1    | 1    | 1    | 2    | 2    | 3    | 1     | 2     | 1     | 2     |
| CO-2   | 3    | 2    | 3    | 1    | 3    | 1    | 2    | 2     | 3     | 3     | 2     |
| CO-3   | 2    | 3    | 2    | 3    | 1    | 2    | 1    | 2     | 1     | 2     | 1     |
| CO-4   | 1    | 1    | 1    | 2    | 2    | 3    | 3    | 3     | 3     | 3     | 3     |

**PaperNo:****206-A****Paper Name:****PRESERVATION&CONSERVATIONOFLIBRARYMATERIALS**

| <b>CreditDistribution</b> |          |          | <b>Total Credits</b> | <b>Mid-Term</b> | <b>End-Term</b> | <b>Total Marks</b> |
|---------------------------|----------|----------|----------------------|-----------------|-----------------|--------------------|
| <b>L</b>                  | <b>T</b> | <b>P</b> | <b>L+T+P</b>         | <b>30</b>       | <b>70</b>       | <b>100</b>         |
| <b>3</b>                  | <b>1</b> | <b>0</b> | <b>04</b>            |                 |                 |                    |

**Objective-** To appraise the need and techniques of preservation and conservation of library materials.

Outcomes: After studying this paper, students shall be able to:

CO-1 Understand the fundamental concepts of preservation, conservation, causes of hazards, control measures, digital preservation and binding of library materials.

CO-2 Identify the physical characteristics of library materials and causes of their deterioration

CO-3 Analyze features of different types of hazards and control measures to library materials

CO-4 Implement the different types of preventive measures digital preservation techniques and binding for safeguard different types 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

## **RECOMMENDED BOOKS**

1. Casey, J.P. (1960). *Papermaking*. Inter-science Publishers.
2. Corderoy, J. (1967). *Bookbinding for beginners*. Thomas and Hudson.

3. Dasgupta, K. (1988). *Conservation of library materials: Seminar: Papers*. National Library.
4. Dureau, J.-M., Clements, D. W. G., & Conservation, I. F. of L. A. and Institutions. S. on. (1986). *Principles for the preservation and conservation of library materials*. Hague : IFLA Headquarters.
5. Gabriel, M. R., Roselle, W. C., & Ladd, D. P. (1980). *The microform revolution in libraries*. Greenwich, Conn. : Jai Press.
6. Harvey, D.R.(1993).*Preservation in Libraries: A Reader*. KGSaur Verlag GmbH & Company.
7. Jensen, H. (1969). *Sign, symbol, and script: An account of man's efforts to write*. George Allen & Unwin.
8. Singh, R.S. . (1993). *Conservation of documents in libraries, archives and museums*. Aditya Prakashan.

**CO-PO&PSO Mapping(P-206A)**

| <b>PAPER CODE-LIS-206(A) PRESERVATION &amp; CONSERVATION OF LIBRARY MATERIALS</b> |      |      |      |      |      |      |      |       |       |       |       |
|---|------|------|------|------|------|------|------|-------|-------|-------|-------|
|   | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1  | 3    | 3    | 1    | 0    | 1    | 1    | 1    | 3     | 0     | 2     | 1     |
| CO-2  | 3    | 3    | 1    | 0    | 1    | 0    | 1    | 3     | 0     | 2     | 1     |
| CO-3  | 3    | 3    | 1    | 0    | 1    | 0    | 1    | 3     | 0     | 2     | 1     |
| CO-4  | 3    | 3    | 1    | 0    | 1    | 1    | 1    | 3     | 0     | 2     | 1     |

**Paper No:** 206-B  
**Paper Name:** COMMUNITY INFORMATION SERVICE

| Credit Distribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|---------------------|---|---|---------------|----------|----------|-------------|
| L                   | T | P | L+T+P         | 30       | 70       | 100         |
| 3                   | 1 | 0 | 04            |          |          |             |

**Objective-** To acquaint students with the need and purpose of community information services. Course

Outcomes: After completion of the course students will be able

CO1 To remember the basic concepts of Community information in Libraries. CO2

To create professionals as per the requirement of various organizations.

CO3 To analyze the experience, knowledge and challenges of various Professionals in their organization.

CO4 To evaluate the challenges in community information.

**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 Centers: 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

## **Unit-3: Community Information Resources**

- Nature and Scope, Differences with bibliographical resources
- Documentary Sources: vital statistics, land records, official publications, magazines etc.
- Institutional Sources: Publications of local governments and government agencies, educational and religious institutions etc.
- Human Resources: village level leaders, field extension personnel, religious leaders, government officials, etc;
- Cultural heritage resources and Digital resources.

## **Unit 4: Digital Community Information Services**

- Digital Community Information Services – Need, Advantages, Tools and Techniques
- Software Framework for Community Information Services: Models, Components
- Community Communication and Interaction: Tools, Techniques and Processes

## **RECOMMENDED BOOKS**

1. Ainley, P. (1980). *Basics of community information: A action handbook for librarians*. Association of Assistant Librarians.
2. Association, A.L. (1967). *Minimum standards for public library systems, 1966*. ALA.
3. Babu, Dr. B.R., & Gopalakrishnan, Dr. S. (2004). *Information, communication, library, and community development: Festschrift in honour of prof. C.P. Vashishth*. B. R. Publishing.
4. Bunch, A. (1982). *Community information services: Their origin, scope, and development*. London : Bingley.
5. Bunch, A. (1993). *The basics of community information work*. Unipub.

6. Coleman,P.(1986).Community information policy andprovision.*Aslib Proceedings*, 38(9), 305–316. <https://doi.org/10.1108/eb060051>
7. Durrance,J.C.(1984).*ArmedforAction:Libraryresponsetocitizeninformation needs*. New York, NY : Neal-Schuman Publishers.
8. Durrance,JoanCoachman,&Pettigrew,K.E.(2002).*Onlinecommunityinformation: Creating a nexus at your library*. American Library Association.
9. Kahn, A. J. (1971). *Neighborhood information centers: A study and some proposals*. Columbia University School of Social Works.
10. Roy,L.,Bhasin,A.,&Arriaga,S.K.(2011).*Triballibraries,archives,andmuseums: Preserving Our Language, Memory, and Lifeways*. Scarecrow Press.
11. Vashishth, C. P. (1995). *Libraries as rural community resource centres: Papers & proceedings of the Workshop on Rural Community Resource Centres, New Delhi, august 28-29, 1992*. B. R. Publishing.

CO-PO&PSO mapping(P-206 B)

| PAPERCODE-LIS-206(B)(CommunityInformationService) |      |      |      |      |      |      |      |       |       |       |       |
|---|------|------|------|------|------|------|------|-------|-------|-------|-------|
|   | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1  | 1    | 2    | 1    | 2    | 1    | 1    | 1    | 2     | 1     | 3     | 1     |
| CO-2  | 3    | 2    | 3    | 3    | 2    | 1    | 3    | 2     | 2     | 2     | 3     |
| CO-3  | 2    | 3    | 2    | 1    | 2    | 3    | 2    | 1     | 3     | 1     | 2     |
| CO-4  | 1    | 1    | 2    | 3    | 3    | 2    | 3    | 3     | 3     | 2     | 3     |

**PaperNo:** 206-C

**Paper Name:** INFORMATIONRESOURCE DEVELOPMENT

| CreditDistribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|--------------------|---|---|---------------|----------|----------|-------------|
| L                  | T | P | L+T+P         | 30       | 70       | 100         |
| 3                  | 1 | 0 | 04            |          |          |             |

**Objective-**To keep acquainted with the types of information resources and develop various types of resources in the library to use for learning and research and need principles for resource development, bibliography, use of databases, institutional repositories, open access resources etc.

Course Outcomes: After completion of the course students will be able

CO-1. Understand the basic concept of Documentary and Non Documentary sources of information.

CO-2. Analyze the importance of various book selection tools viz Drury's Principle, Dewey's Principle and Rangathan's principles.

CO-3 Section of the various types of tools for providing services to users.



CO-4.Implementation andusethevarioustypesoftoolsanddocumentsinprovidingthe information to patrons.

### **Unit1:Typesof Information Resources**

- Documentary(Primary,Secondary&Tertiary)
- Non-Documentary
- E-Resources

### **Unit2:BookSelection Principles**

- Drury'sPrinciple
- Dewey'sPrinciple
- McColvin'sPrinciple
- Ranganathan'sPrinciple

### **Unit3:SelectionTools**

- CurrentList
- Bibliographies
- Library Catalogue
- Books in Print
- Publishers'Catalogue
- Directories
- WebOPAC (WorldCat)
- Websites

### **Unit4:CategoriesofDocuments**

- ByPhysicalCharacteristics
- ByInformation Characteristics
- Booksand Periodicals
- Thesesand Dissertations
- Govt. Publications
- GreyLiterature

### **RECOMMENDEDBOOKS**

1. Ani, O. E., & Ahiauzu, B. (2008). Towards effective development of electronic information resources in Nigerian university libraries. *Library Management*, 29(6/7), 504–514. <https://doi.org/10.1108/01435120810894527>
2. Harrell,M.C.,Thie,H.J.,Yardley,R.J.,&Lytell,M.C.(2011).*Informationssystemstechnician rating stakeholders: Implications for effective performance*. RAND Corporation.
3. Laudon, K. C., & Laudon, J. P. (2017). *Management information systems: Managing the digital firm*. Pearson.

4. McCloy, K. R. (1995). *Resource management information systems: Remote sensing, GIS and modelling, second edition*. CRC Press.
5. McNurlin, B. C., & Sprague, R. H. (2003). *Information systems management in practice*. Prentice Hall.
6. Pitschmann, L.A., & Federation, D.L. (2001). *Buildingsustainablecollectionsoffree third-partyweb resources*. Washington, D.C.: Digital Library Federation, Council on Library and Information Resources.

CO-PO&PSO mapping(P-206C)

| PAPER CODE-LIS-206(C)(Information Resource Development) |      |      |      |      |      |      |      |       |       |       |       |
|---|------|------|------|------|------|------|------|-------|-------|-------|-------|
|   | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1  | 3    | 2    | 1    | 3    | 2    | 3    | 2    | 2     | 3     | 2     | 2     |
| CO-2  | 2    | 3    | 1    | 2    | 3    | 1    | 1    | 3     | 2     | 3     | 3     |
| CO-3  | 1    | 2    | 3    | 1    | 2    | 1    | 1    | 1     | 1     | 1     | 2     |
| CO-4  | 3    | 1    | 2    | 2    | 1    | 2    | 3    | 2     | 2     | 2     | 1     |

**SEMESTER-III  
PART-II**

**Paper No:** 301  
**Paper Name:** INFORMATION RETRIEVAL

| Credit Distribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|---------------------|---|---|---------------|----------|----------|-------------|
| L                   | T | P | L+T+P         | 30       | 70       | 100         |
| 3                   | 1 | 0 | 04            |          |          |             |

**Objective-** To get abreast of the students about the indexing & vocabulary control techniques and searching of resources both through print and electronic form.

**Outcomes:** After studying this paper, students shall be able to:

CO-1 Understand the fundamental concepts of ISAR Systems, Artificial Intelligence, information searching, information evaluation, information retrieval model indexing language, indexing system, vocabulary control tools, and its functions.

CO-2 Analyse the features and functions of different indexing systems, indexing techniques and learn the parameters of information evaluation.

CO-3 Distinguish controlled vocabulary from natural language and its applicability in libraries for subject indexing.

CO-4 Apply the knowledge of ISAR Systems, retrieval performance, indexing language, systems and techniques in information searching

**Unit 1: Basics of Information Retrieval Systems**

- Definition, Components and Types of ISAR Systems
- Evaluation of ISAR Systems
- Elements of File Organization
- 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 Thesaurus facet, Classaurus

### **Unit 3: Indexing Systems and Techniques**

- Indexing Concept, Principles and Process
- Pre-Coordinate Indexing System & Post-Coordinate Indexing System
- Uni-term Index System
- Citation Indexing - Meaning and importance, Different citation indexes: SCI, SSCI,

#### **AHCI**

- Full-Text (STAIRS, LEXIS-NEXIS, etc.)
- Automatic Indexing: COMPASS, Web Indexing

### **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

### **RECOMMENDED BOOKS**

1. Aitchison, J., Bawden, D., & Gilchrist, A. (2003). *Thesaurus construction and use: A practical manual*. Routledge.
2. Becker, J., & Hayes, R. M. (1963). *Information storage and retrieval: Tools, elements, theories*. New York : Wiley.
3. Chowdhury, G. G. (2004). *Introduction to modern information retrieval*. Library Assn Pub Limited.
4. Convey, J. (1992). *Online information retrieval: Introductory manual to principles and practice*. Clive Bingley.
5. deGrolier, E. (1962). *A study of general categories applicable to classification and coding in documentation*. Paris, Unesco.

6. Ellis,D.(1996).*Progressandproblemsininformationretrieval*.LibraryAssociationPub. Library Association Pub.
7. Foskett,A.C.(1996). *The subject approach to information*.Facet Publishing.
8. Fugmann,R.(1993).*Subject analysis and indexing: Theoretical foundation and practical advice*. INDEKS Verlag .
9. Lancaster,F.W.,W,L.F.,Lancaster,W.,&Joncich,M.J.(1977). *The measurement and evaluation of library services*. Washington : Information Resources Press.
10. Losee,R.M.(1998).*Text retrieval and filtering: Analytic models of performance*.Springer.
11. Matthews,J.R.(2017).*The Evaluation and Measurement of Library Services, 2nd Edition*. ABC-CLIO.
12. Meadow,C.T.,Boyce,B.R.,Kraft,D.H.,&Barry,C.L.(2006).*Text information retrieval systems*. Academic Press Incorporated.
13. Sharp,H.S.(1964). *Readings in information retrieval*.TheScarecrow Press.
14. Soergel,D.(1974).*Indexing languages and thesauri: Construction and maintenance*.Los Angeles : Melville Publishing Company.
15. Soergel,D.(1985).*Organizing Information: Principles of Data Base and Retrieval Systems*. Morgan Kaufmann.

CO-PO&PSO mapping(P-301)

| PAPER CODE-LIS-301 Information Retrieval |      |      |      |      |      |      |      |       |       |       |       |
|--|------|------|------|------|------|------|------|-------|-------|-------|-------|
|  | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1                                     | 3    | 3    | 2    | 1    | 1    | 1    | 1    | 3     | 0     | 2     | 1     |
| CO-2                                     | 3    | 3    | 2    | 0    | 1    | 1    | 1    | 3     | 0     | 2     | 1     |
| CO-3                                     | 3    | 3    | 2    | 0    | 2    | 2    | 1    | 3     | 1     | 2     | 1     |
| CO-4                                     | 3    | 3    | 2    | 0    | 2    | 2    | 1    | 3     | 1     | 2     | 1     |

**Paper No: 302**  
**Paper Name: DIGITAL LIBRARY AND CONTENT MANAGEMENT**

| Credit Distribution |          |          | Total Credits | Mid-Term  | End-Term  | Total Marks |
|---------------------|----------|----------|---------------|-----------|-----------|-------------|
| <b>L</b>            | <b>T</b> | <b>P</b> | <b>L+T+P</b>  | <b>30</b> | <b>70</b> | <b>100</b>  |
| <b>3</b>            | <b>1</b> | <b>0</b> | <b>04</b>     |           |           |             |

**Objective-**To make the students aware of content management concepts, content developing strategies and digitization in the library and develop their confidence level in using the same in the library.

**Course Outcomes:** After completion of the course students will be able

CO-1 Remember the basic knowledge of content management and digitization  
CO-2 Analyze the need and importance of digital library and virtual library.  
CO-3 Design the content management and content developing strategies.  
CO-4 Implementation of content developing strategies in digitization process

### **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

### **Unit 3: Knowledge Discovery through Data Mining**

- Definition, Benefits and applications of data mining
- Data mining approaches and functionalities
- Important data mining techniques
- Web Mining and its applications

### **Unit 4: Legal Issues in Content Management & Digital Library**

- File formats, Identifiers & Handles systems in digital libraries
- Metadata standards – Dublin Core, METS, TEI etc
- Metadata interoperability, cross walking and mapping
- Copyright and Rights Management in digital libraries

## **RECOMMENDED BOOKS**

1. Andrews, J. (2017). *Digital libraries: Policy, planning and practice*. Routledge.
2. Chowdhury, G. G., & Chowdhury, S. (2003). *Introduction to digital libraries*. Facet Publishing.
3. Deegan, M., & Tanner, S. (2006). *Digital preservation*. Facet Publishing.
4. Hoshi, T. P., & Schatz, B. (2003). *Digital library use: Social practice in design and evaluation*. MIT Press.
5. Jones, R. E., Andrew, T., & MacColl, J. (2006). *The institutional repository*. Elsevier.
6. Lakshmi, V., & Jindal, S. C. (2004). *Digital libraries*. Gyan Publishing House.

7. Shinde,G.Z.(2015).Emergingtechnologiesandfutureoflibrariesissuesandchallenges.  
Daya Publishing House.

CO-PO&PSOMapping(P-302)

| PAPERCODE-LIS-302DigitalLibraryandContentManagement |      |      |      |      |      |      |      |       |       |       |       |
|---|------|------|------|------|------|------|------|-------|-------|-------|-------|
|   | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1  | 1    | 2    | 1    | 2    | 1    | 1    | 1    | 2     | 1     | 3     | 1     |
| CO-2  | 3    | 2    | 3    | 3    | 2    | 1    | 3    | 2     | 2     | 2     | 3     |
| CO-3  | 2    | 3    | 2    | 1    | 2    | 3    | 2    | 1     | 3     | 1     | 2     |
| CO-4  | 3    | 2    | 1    | 1    | 3    | 2    | 1    | 3     | 1     | 3     | 1     |

(1=Low,2=Medium,3=High)

**PaperNo: 303**  
**Paper Name: ACADEMICLIBRARYSYSTEM**

| CreditDistribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|--------------------|---|---|---------------|----------|----------|-------------|
| L                  | T | P | L+T+P         | 30       | 70       | 100         |
| 3                  | 1 | 0 | 04            |          |          |             |

**Objective-**To make the students conversant with organization, functions, building, user- oriented collections and services in academic libraries as well as role of library in continuing education program.

**CourseOutcomes:**After completionofthe coursethestudents willbeable  
CO1To rememberthebasicknowledgeandfunctions ofAcademicLibraries.  
CO2TounderstandResourceDevelopmentinthefieldofLibrary&InformationScience.  
CO3.To apply for staff development courses through continuing education.  
CO 4 To analyze how the application of networking has changed the services and all the activities of the Libraries

**Unit1:AcademicLibrary:FunctionsandServices**

- RoleofAcademicLibrary inHigher Education
- AcademicLibrary Services
- AcademicLibrary Management
- RoleofUGCforAcademicLibrary Development

**Unit2:ResourceDevelopment**

- PhysicalResourcesincludingICT Infrastructure
- CollectionDevelopmentPolicy,WeedingoutPolicy
- HumanResource Development
- FinancialResourceManagement

**Unit3:StaffDevelopmentandContinuingEducation**

- Staffing Norms and Standards
- Continuing Education Program for Academic Libraries
- Personnel Management
- 

#### **Unit 4: Library Networks and Consortia**

- INFLIBNET-Objectives, Functions and Services; MHRD/UGC-INFLIBNET
- Initiatives for Academic Library Development: E-Shodh Sindhu and N-LIST

#### **RECOMMENDED BOOKS**

1. Beard, J. (2016). *University libraries and digital learning environments*. Routledge.
2. Bose, K. (1994). *Information networks in India: Problems and prospects*. Ess Ess Publications.
3. Brophy, P. (2005). *The Academic Library*. Facet Publishing.
4. Cowley, J. (1982). *Personnel management in libraries*. London: Bingley.
5. Evans, G. E., & Evans, G. R. (1983). *Management techniques for librarians*. Emerald Group Pub Limited.
6. Gelfand, M. A. (1971). *University libraries for developing countries*. University Book and Stationery.
7. Isaac, D., & Ramaiah, L. S. (1993). *Academic libraries, Role in the National Development: Festschrift Volume in Honour of Prof. N. B. Inamdar; foreword by G. Ram Reddy*. T R Publications.
8. Katz, L. S. (2012). *Selecting materials for library collections*. Routledge.
9. Kent, A. (1979). *The Structure and Governance of Library Networks: Proceedings of the 1978 Conference in Pittsburgh, Pa., Co-sponsored by National Commission on Libraries and Information Science and University of Pittsburgh*. Marcel Dekker Incorporated.
10. Kumar, G. (1989). *Library development in India*. Vikas.
11. Kumar, K. (2009). *Library Administration and Management*. Vikas.
12. McKee, B. (1989). *Planning library service*. London: C. Bingley.
13. Mishra, R. N. (2017). *Use and Services of University Library*. Today and Tomorrow's Printers and Publishers.
14. Mittal, R. L. (2007). *Library administration: Theory and practice*. Ess Ess Publication.

15. Orne, J. (1977). *Academic libraries by the year 2000: Essays honoring Jerrold Orne*. New York : R. R. Bowker Company.
16. Prasher, R. G. (1991). *Managing university libraries*. Scholarly Publications.
17. Ranganathan, S. R., & Gopinath, M. A. (2006). *Library book selection*. EssEss Publication.
18. S., T. (2013). *Challenges of academic library management in developing countries*. IGI Global.

CO-PO&PSO mapping (P-303)

| PAPER CODE-LIS-303 (Academic Library System) |      |      |      |      |      |      |      |       |       |       |       |
|--|------|------|------|------|------|------|------|-------|-------|-------|-------|
|  | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1   | 2    | 2    | 1    | 2    | 1    | 1    | 2    | 2     | 2     | 3     | 2     |
| CO-2   | 3    | 2    | 1    | 1    | 1    | 1    | 3    | 2     | 2     | 2     | 3     |
| CO-3   | 2    | 2    | 1    | 1    | 1    | 2    | 3    | 2     | 3     | 2     | 2     |
| CO-4   | 3    | 2    | 1    | 1    | 1    | 2    | 3    | 3     | 2     | 3     | 2     |

**Paper No: 304**

**Paper Name: WEB TECHNOLOGIES**

| Credit Distribution |          |          | Total Credits | Mid-Term  | End-Term  | Total Marks |
|---------------------|----------|----------|---------------|-----------|-----------|-------------|
| <b>L</b>            | <b>T</b> | <b>P</b> | <b>04</b>     | <b>30</b> | <b>70</b> | <b>100</b>  |
| <b>3</b>            | <b>1</b> | <b>0</b> |               |           |           |             |

**Objectives:**

1. To introduce the students with basic concepts of Web technology.
2. To familiarize the students with the concepts of web page design.
3. To acquaint students with the current trends in web technologies.

Course Outcomes: After completion of the course students will be able:

CO-1 Describe the concepts of World Wide Web, and the requirements of effective web design. CO-2

To analyse a web page and identify its elements and attributes.

CO-3 Explain client and server-side scripting and their applicability.

CO-4 To become aware with the use of current trends following web technologies.

**Unit 1: Internet Basics/Web Technology**

- World Wide Web: History and Evolution, Uniform Resource Locator (URL), Open URL, Web Servers, Network Protocols: TCP/IP, FTP, SSH, SOAP, etc.
- Web Browsers- Netscape Navigator, Internet Explorer and Mozilla Firefox
- Search Engines: Definition; Evolution; categories; search techniques; Meta Tags
- Web Security concepts



## Unit2:Web Page Design

- Introduction to Markup languages: SGML, HTML, DHTML, XHTML and XML, Common HTML commands.
- Tools for Web Page Designing: HTML Editors; Client-side Scripting – VB Script, Java Script and PHP; Server-side Scripting- ASP and JSP; DOM, CSS; Features of Web Page Design Tools; Advantages of Web Page Design Tools
- Evaluationofwebsites

## Unit3:Web2.0/ Web 3.0Concepts andApplications

- WebOPAC,Web2.0functions andfeatures,Web 3.0
- Web2.0ToolsandtheirapplicationinLibraries:RSSFeed,Blogs/Weblogs,Tags,Folksonomy,
- Mashups,Podcasts,InstantMessaging,Flicker,WikisandSocialNetworkingSites, Youtube
- SemanticWeb

## Unit4:CurrentTrends

- Cloudcomputing:Concept, types
- Vendorsincloudcomputing: Google,Amazon,Microsoft,rackspaceetc.
- ApplicationofCloudcomputing in Libraries
- M-computing:ConceptandApplications

## RecommendedBooks:

1. *AHelpfulGuidetoWebSearchEngines--howsearchengineswork(page4)*.(n.d.). Retrieved September 7, 2021, from <http://www.monash.com/spidap4.html>
2. Cleveland, A. D., & Cleveland, D. B. (2013). *Introduction to indexing and abstracting:Fourth edition*. ABC-CLIO.
3. Croft, B., Metzler, D., & Strohman, T. (2011). *Search engines: Information retrieval in practice*. Pearson Higher Ed.
4. Hahn.(1996).*The Internetcompletreference*.TataMcGraw-HillEducation.
5. Hill,B. (2003).*Googlefor dummies*. JohnWiley& Sons, Inc.
6. Hurwitz, J. S., Bloor, R., Kaufman, M., & Halper, F. (2010). *Cloud computing for dummies*. John Wiley & Sons.
7. Kinyanjui,D.(2017).*Application ofweb2.0Technologies inlibraries*.Grin Verlag.
8. Kizza,J. M.(2020). *Guideto computernetworksecurity*.Springer Nature.

9. Parkes,D.,&Walton,G.(2010).*Web2.0Andlibraries:Impacts,technologiesandtrends*. Chandos Publishing.
10. Velte.(2009).*Cloudcomputing*.TataMcGraw-HillEducation.
11. Williamson.(2001).*Xml:Thecompletreference*. TataMcGraw-HillEducation.
12. Young,M.L.(1999).*Internet:Thecompletreference,millenniumedition*.McGraw-Hill Osborne Media.

CO-PO&PSO mapping (P304)

| PAPERCODE-LIS-304(WebTechnologies) |      |      |      |      |      |      |      |       |       |       |       |
|------------------------------------|------|------|------|------|------|------|------|-------|-------|-------|-------|
|                                    | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1                               | 1    | 3    | 1    | 3    | 2    | 2    | 3    | 2     | 1     | 1     | 2     |
| CO-2                               | 3    | 2    | 1    | 1    | 3    | 2    | 1    | 3     | 1     | 3     | 1     |
| CO-3                               | 2    | 1    | 2    | 1    | 2    | 1    | 3    | 2     | 3     | 2     | 1     |
| CO-4                               | 3    | 2    | 1    | 1    | 3    | 2    | 1    | 3     | 1     | 3     | 1     |

**PaperNo: 305**  
**Paper Name: INTERNSHIP AND CONTENT MANAGEMENT SOFTWARE PRACTICE**

| CreditDistribution |          |          | Total Credits | Mid-Term | End-Term   | Total Marks |
|--------------------|----------|----------|---------------|----------|------------|-------------|
| <b>L</b>           | <b>T</b> | <b>P</b> | <b>L+T+P</b>  | -        | <b>100</b> | <b>100</b>  |
| <b>0</b>           | <b>0</b> | <b>2</b> | <b>02</b>     |          |            |             |

**(A) INTERNSHIP-50marks**

To place students in a working Library & Information Centre environment approved / recommended by the Department to enable them to be exposed to the various sections / divisions to gain practical knowledge and to give them working experience.

Internship shall be for one month (30 days).

A Report shall be submitted by each student along with a certificate from the Head of the library concerned for the completion of Internship. The Internship report will be evaluated by the department faculty and marks will be sent to the Controller of Examinations.

**(B) Content Management Software Practice 50 marks**

- Hands-on practice on Joomla/Drupal.
- Hands-on practice on Greenstone Digital Library Software (GSDL), D-Space.

End term examination (100 Marks)

**A-Internship 50 Marks: Report Submission (30 Marks) + Presentation (20 Marks)**

**B- Content Management Software Practice 50 Marks:** Record Assignment & Computer Practice (30 marks) + Viva-Voce (20 marks)

| <b>PAPERCODE-LIS-305InternshipandContentManagementSoftwarePractice</b> |      |      |      |      |      |      |      |       |       |       |       |
|--|------|------|------|------|------|------|------|-------|-------|-------|-------|
|  | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1   | 1    | 2    | 1    | 2    | 1    | 1    | 1    | 2     | 1     | 3     | 1     |
| CO-2   | 3    | 2    | 3    | 3    | 2    | 1    | 3    | 2     | 2     | 2     | 3     |
| CO-3   | 2    | 3    | 2    | 1    | 2    | 3    | 2    | 1     | 3     | 1     | 2     |
| CO-4   | 3    | 2    | 1    | 1    | 3    | 2    | 1    | 3     | 1     | 3     | 1     |

**PaperNo: 306-A**

**Paper Name: INTELLECTUALPROPERTYRIGHTS&COPYRIGHT**

| CreditDistribution |          |          | Total Credits | Mid-Term  | End-Term  | Total Marks |
|--------------------|----------|----------|---------------|-----------|-----------|-------------|
| <b>L</b>           | <b>T</b> | <b>P</b> | <b>L+T+P</b>  | <b>30</b> | <b>70</b> | <b>100</b>  |
| <b>3</b>           | <b>1</b> | <b>0</b> | <b>04</b>     |           |           |             |

**Objective-** To make the students aware of the intellectual property & copyright concepts and other issues related to patents, trade rights etc.

CourseOutcomes: After completion of the course students will be able

CO1 Remember and understand the fundamental concepts of intellectual property and copyright.

CO2 Analyse the different IPR Acts and conventions and its application in the electronic environment.

CO-3 Apply the principles of Indian copyright Act, Creative Commons licence and Plagiarism. CO-

4 Evaluate Copyright and Patent laws of different countries.

**Unit 1: Intellectual Property Rights**

- IPR: Meaning, Concept, Genesis, and Development
- Categories of IPR
- Enforcement of Intellectual Property Rights & Role of WIPO,
- IPR Acts and its Application in Electronic Environment
- Berne Convention; Universal Copyright Convention; Stockholm Conference; Paris Conference; WIPO Copyright treaty; GATT; TRIPS.

**Unit 2: Copyright**

- Copyright: Meaning and Scope
- Rights to Copyright Owner, Open access journals and repositories
- Licensing of Copyright

- Copyright and Protection of Electronic Resources
- Copyright Laws, Creative Commons; Plagiarism

### **Unit3: Patents**

- Concept and Scope
- Patent Laws in India & Abroad and its amendments
- Protection of Inventions

### **Unit4: Copyright & Patent Violation and Infringement**

- India
- USA
- UK

### **RECOMMENDED BOOKS**

1. Bouchoux, D. E. (2016). *Intellectual property: The law of trademarks, copyrights, patents, and trade secrets, loose-leaf version*. Cengage Learning.
2. Correa, C. M., & Yusuf, A. A. (2016). *Intellectual property and international trade: The TRIPS Agreement: The TRIPS Agreement*. Kluwer Law International B.V.
3. Fishman, S. (2020). *The Copyright Handbook: What Every Writer Needs to Know*. Nolo.
4. Freeman, L., & Peace, A. G. (2005). *Information ethics: Privacy and intellectual property*. IGI Global.
5. Grant, J., Ashworth, C., & Charmasson, H. (2008). *Patents, registered designs, trademarks and copyright for dummies*. For Dummies.
6. Litman, J. (2006). *Digital copyright*. Prometheus Books.
7. Munari, F., & Oriani, R. (2011). *The economic valuation of patents: Methods and applications*. Edward Elgar Publishing.
8. Murray, A. (2019). *Information technology law: The law and society*. Oxford University Press, USA.
9. Narayanan, P. (2007). *Law of copyright and industrial designs*. Eastern Law House (ELH).
10. Parulekar, A. (2006). *Indian Patents Law: Legal and business implications*. Macmillan India Ltd.
11. Tian, Y. (2009). *Re-thinking Intellectual Property: The Political Economy of Copyright Protection in the digital era*. Routledge Cavendish.
12. Umeh, J. (2007). *The World Beyond Digital Rights Management*. BCS, the Chartered Institute.

13. Wadehra, B.L. (2004). *Law relating to patents, trademarks, copyright, designs and geographical indications*. University Law Publishing Pvt. Ltd.

| <b>PAPER CODE-LIS-306(A) Intellectual Property Rights &amp; Copyright</b> |      |      |      |      |      |      |      |       |       |       |       |
|---|------|------|------|------|------|------|------|-------|-------|-------|-------|
|   | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1  | 1    | 3    | 1    | 3    | 2    | 2    | 3    | 2     | 1     | 1     | 2     |
| CO-2  | 3    | 2    | 1    | 1    | 3    | 2    | 1    | 3     | 1     | 3     | 1     |
| CO-3  | 2    | 1    | 2    | 1    | 2    | 1    | 3    | 2     | 3     | 2     | 1     |
| CO-4  | 3    | 2    | 1    | 1    | 3    | 2    | 1    | 3     | 1     | 3     | 1     |

**Paper No:** 306-B  
**Paper Name:** INTERNET & ITS' APPLICATIONS

| Credit Distribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|---------------------|---|---|---------------|----------|----------|-------------|
| L                   | T | P | L+T+P         | 30       | 70       | 100         |
| 3                   | 1 | 0 | 04            |          |          |             |

**Objective-** To make the students aware of the Internet and its related technologies in teaching, learning and research.

**Course Outcomes:** After completion of the course students will be able CO1

To remember the basic concepts of internet in Libraries.

CO2 To create professionals as per the requirement of latest technologies of internet.

CO3 To analyze the experience, knowledge and challenges of various Professionals in internet applications.

CO4 To evaluate the challenges and trends in internet.

### 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

- SearchTools:Gopher,Veronica,Jughead,Archie,SearchEngines
- ContentEnrichingServices: Blogs,Wikis, SocialCommunity Websites

## RECOMMENDEDBOOKS

1. Bates, C. (2007). *Web Programming: Building Internet Applications, 3rd Ed.* John Wiley & Sons.
2. Crumlish, C. (1997). *The abc's of the internet.* Sybex Incorporated.
3. Hartl, M., & Prochazka, A. (2007). *RailsSpace: Building a social networking website with ruby on rails.* Addison-Wesley Professional.
4. Kalbach, J. (2007). *Designing web navigation: Optimizing the user experience.* "O'Reilly Media, Inc."
5. Miller, J. B. (2014). *Internet technologies and information services, 2nd edition.* ABC-CLIO.
6. Morville, P., & Rosenfeld, L. (2006). *Information architecture for the worldwide web: Designing large-scale web sites.* "O'Reilly Media, Inc."
7. Nair, R. R. (2002). *Internet for information services.* EssEss Publications.
8. Robbins, J. N. (2012). *Learning web design: A beginner's guide to HTML, CSS, javascript, and web graphics.* "O'Reilly Media, Inc."
9. Sehgal, R. L. (2000). *Intranet & Internet Applications For Librarians (Set Of Two Volumes)*. ESS ESS.
10. Stallings. (2003). *Computer networking with internet protocols and technology.* Pearson Education India.
11. Weinberg, T. (2009). *The new community rules: Marketing on the social web.* "O'Reilly Media, Inc."

| PAPER CODE-LIS-306(B) Internet & Its Applications |      |      |      |      |      |      |      |       |       |       |       |
|---|------|------|------|------|------|------|------|-------|-------|-------|-------|
|   | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1  | 1    | 2    | 1    | 2    | 1    | 1    | 1    | 2     | 1     | 3     | 1     |
| CO-2  | 3    | 2    | 3    | 3    | 2    | 1    | 3    | 2     | 2     | 2     | 3     |
| CO-3  | 2    | 3    | 2    | 1    | 2    | 3    | 2    | 1     | 3     | 1     | 2     |
| CO-4  | 3    | 2    | 1    | 1    | 3    | 2    | 1    | 3     | 1     | 3     | 1     |

**PaperNo: 306-C**

**Paper Name: ELECTRONIC PUBLISHING (E-PUBLISHING)**

| Credit Distribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|---------------------|---|---|---------------|----------|----------|-------------|
| L                   | T | P | L+T+P         | 30       | 70       | 100         |
| 3                   | 1 | 0 | 04            |          |          |             |

**Objective:**To make the students aware of different types of e-publishing consisting of electronic books, journal articles, reports etc. which facilitate easy access and use by the students for learning and research and its importance in the realm of e-learning.

Course Outcomes: After completion of the course students will be able CO1:

Understand the kinds of electronic publishing.

CO2: Familiarize the components of electronic publishing.

CO3: Learn the methods of E-Publishing Technology.

CO4: Attain the concept and various types and models of e-publishing.

### **Unit 1: Basics of Electronic Publishing**

- History of scholarly publishing, Types of e-publications
- Migration of peer reviewed journals from print to electronic
- Role of Internet in accessing such resources
- Digital publishing as a catalyst to interdisciplinary communication
- Peer review process; Archival options for short and long-term preservation

### **Unit 2: Stakeholders of Electronic Publishing**

- Universities, research institutions, university presses;
- Libraries and commercial publishers in scholarly communication
- Newspapers and the transformation of journalism.
- Open Access Publishing
- Large scale digitization projects at the international level.

### **Unit 3: E-Publishing and E-Learning**

- Digital publishing-Models
- E-Publishing in the realm of e-learning
- E-publishing tools and evaluation techniques

### **Unit 4: E-Publishing Technology**

- Technology supports such as, hardware, software for e-publishing
- DTP software
- Copyright

## **RECOMMENDED BOOKS**

1. Gastel, B., & Day, R. A. (2016). *How to write and publish a scientific paper*. Greenwood.
2. Rose, M. J., & Adair-Hoy, A. (2007). *How to publish and promote online*. St. Martin's Griffin.
3. Singh, V. P. (2008). *Simplified dtp coursebook*. Asian books.
4. Spring. (1991). *Electronic printing and publishing: The document processing revolution*. CRC Press.

| <b>PAPERCODE-LIS-306(C)ElectronicPublishing(E-Publishing)</b> |      |      |      |      |      |      |      |       |       |       |       |
|---|------|------|------|------|------|------|------|-------|-------|-------|-------|
|   | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1  | 1    | 2    | 2    | 2    | 1    | 2    | 2    | 1     | 2     | 1     | 2     |
| CO-2  | 3    | 3    | 2    | 1    | 3    | 3    | 1    | 2     | 1     | 3     | 1     |
| CO-3  | 2    | 1    | 3    | 3    | 2    | 2    | 2    | 3     | 3     | 2     | 3     |

**PaperNo.:306-D**

**PaperName:OpenAccess&Scholarly Communications**

| <b>CreditDistribution</b> |          |          | <b>Total Credits</b> | <b>Mid-Term</b> | <b>End-Term</b> | <b>Total Marks</b> |
|---------------------------|----------|----------|----------------------|-----------------|-----------------|--------------------|
| <b>L</b>                  | <b>T</b> | <b>P</b> | <b>L+T+P</b>         | <b>30</b>       | <b>70</b>       | <b>100</b>         |
| <b>3</b>                  | <b>1</b> | <b>0</b> | <b>04</b>            |                 |                 |                    |

**Course Objectives:** This course introduces the students with broad understanding of the multidisciplinary field of scholarly communication and impact of technology in digital driven research and its policy challenges.

CourseOutcomes-Thestudents, aftercompletionofthecourse,will beinaposition

CO-1Rememberthebasicconceptof openaccessandscholarlycommunication.

CO-2Analyzetheneedandimportanceofopenaccessandscholarlycommunication. CO-3

Design the integrated policy to avoid plagiarism and detect Predatory Journals.

CO-4 Implementation of the open access policy, development of various kinds of databases Bibliographic databases, Citation Databases, Full-text Databases, E-Journal Gateways, Online Directories.

### **UNIT-1:IntroductionToScholarlyCommunication**

- Scholarlycommunication –itsgenesis
- Importanceandethicsofacademic publishing
- Differentcommunicationchannelsinacademic publishing
- Processofscholarlycommunications

### **UNIT-2:PublishingInAcademic Journals**

- AcademicJournalsandtheir functions
- ThePeerReview Process
- TheImportanceofScientificandProfessionalSocietiesin Journal
- Publishing



- Publishing in Conferences

### **UNIT-3:Academic Integrity**

- Academicintegrity:definition,meaningimportanceineducationallives
- Academicintegritypolicyandroleof university
- Plagiarismandconsequenceofindulgencein plagiarism
- Avoidingplagiarism:paraphrasing,referencingand citing

### **UNIT-4:ElectronicJournals andDatabases**

- Emergenceofe-Journals
- MigrationofPeer ReviewedJournals fromPrint toOnline Platforms
- Electronic Databases (Bibliographic Databases, Citation Databases, Full-text Databases, E-Journal Gateways, Online Directories
- PredatoryJournals
- 

### **RecommendedReadings:**

1. UNESCO.(2015).Scholarlycommunication. UNESCO.
2. Borgman,C.L.(Eitherversionisfine-2007or2010).ScholarshipintheDigitalAge: Information, infrastructure, and the Internet. Cambridge, Massachusetts: The MIT Press.
3. The2007versionofthisworkisavailabledigitallyatnocosttoyouviaIUCAT:  
<http://site.ebrary.com/lib/iupui/docDetail.action?docID=10194165>
4. Bohannon, J. (2013). Who's Afraid of Peer Review? *Science*, 342(6154), 60-65. DOI:10.1126/science.342.6154.60 Retrieved from [www.umass.edu/preferen/You%20Must%20Read%20This/BohannonScience2013.pdf](http://www.umass.edu/preferen/You%20Must%20Read%20This/BohannonScience2013.pdf)
5. Cargill, M., & O'Connor, P. (2013). *Writing Scientific Research Articles:Strategy and Steps*. Wiley-Blackwell.De Groote, S. L., &Dorsch, J. L. (2001). Online Journals: Impact on Print Journal Usage. *Bulletin of the Medical Library Association*, 89(4), 372-378. Retrieved from [www.ncbi.nlm.nih.gov/pmc/articles/PMC57966/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC57966/)
6. Elsevier (2012). *Understanding the Publishing Process in Scientific Journals*. Retrieved from [http://biblioteca.uam.es/sc/documentos/understanding\\_the\\_publishing\\_process.pdf](http://biblioteca.uam.es/sc/documentos/understanding_the_publishing_process.pdf)
7. Harter,S. P. (1998).Scholarly Communication and ElectronicJournals: An Impact Study. *Journal of the American Society for Information Science*,49(6), 507-516.
8. Monbiot,George(2011).AcademicPublishersMakeMurdochLookLikeaSocialist: Academic PublishersChargeVast Feesto Access ResearchPaid forbyUs.The Guardian, 29 August 2011. Retrieved from [www.theguardian.com/commentisfree/2011/aug/29/academic-publishersmurdoch-socialist](http://www.theguardian.com/commentisfree/2011/aug/29/academic-publishersmurdoch-socialist).
9. Webster,P.J.(2008).*ManagingElectronicResources:NewandChangingRolesfor Libraries*. Oxford: Chandos Publishing.

| PAPERCODE-LIS-306(D)(OpenAccess&ScholarlyCommunications) |      |      |      |      |      |      |      |       |       |       |       |
|--|------|------|------|------|------|------|------|-------|-------|-------|-------|
|  | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1   | 1    | 2    | 1    | 2    | 1    | 1    | 1    | 2     | 1     | 3     | 1     |
| CO-2   | 2    | 2    | 3    | 2    | 2    | 1    | 1    | 2     | 2     | 2     | 3     |
| CO-3   | 2    | 3    | 2    | 1    | 2    | 3    | 2    | 1     | 3     | 1     | 2     |
| CO-4   | 3    | 2    | 1    | 1    | 3    | 2    | 1    | 3     | 1     | 3     | 1     |

**SEMESTER-IV  
PART-II**

**PaperNo: 401**  
**Paper Name: RESEARCHMETHODOLOGY**

| CreditDistribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|--------------------|---|---|---------------|----------|----------|-------------|
| L                  | T | P | L+T+P         | 30       | 70       | 100         |
| 3                  | 1 | 0 | 04            |          |          |             |

**Objective-** To make the students aware of the research methodology concepts, definitions, and various techniques used for data analysis in research and to achieve new insights or gain familiarity of a phenomenon.

**Course Outcomes:** After completion of the course students will be able

CO1 Recognize and understand the fundamental concepts of research, its types, research process, methods, designs, report writing and ethics.

CO2 Analyze the different types of research methods, data collection tools, data presentation style, bibliometrics laws and learn to use different statistical tools.

CO-3 Design research proposal, conduct literature review, identify variables and apply correct methodology for conducting research which is crucial for the success of any research project.

CO-4 Implement the knowledge of different types of research, literature review, research process, basic bibliometrics laws, data analytics techniques and research report writing.

**Unit1: 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

**Unit2: Research Methods**

- Scientific Method
- Historical Method

- SurveyandCaseStudyMethod
- ExperimentalMethod

### **Unit3:DataAnalysis and Interpretation**

- DataCollectionTechniques:Questionnaire,Interview,Observation,Samplingand Delphi
- PresentationofData-Tables,ChartsandGraphs
- InterpretationofData:FrequencyDistribution,MeasuresofCentralTendency, Analysis of Time Series, Correlation Studies and Analysis of Variance
- UseofStatisticalPackages

### **Unit4:BibliometricMethodsandReportWriting**

- BibliometricStudies:Meaning,ScopeandParameters
- BibliometricLawsandtheir Applications
- Informetrics,Scientometricsand Webometrics
- GuidelinesforandPreparationofWritingResearchReport(ThesisandDissertation)

### **RECOMMENDED BOOKS**

1. Arnab,R.(2017).*Survey samplingtheoryandapplications*.AcademicPress.
2. Booth,W.C.,Colomb,G.G.,Williams,J.M.,Bizup,J.,&FitzGerald,W.T.(2016). *The Craft of Research, fourth edition*. University of Chicago Press.
3. Brady,J. (1997).*Thecraft ofinterviewing*.Vintage.
4. Fadem,T.J.(2008). *The artof asking:Askbetterquestions,get betteranswers*.FT Press.
5. Gillham,B.(2001).*Researchinterview*.BloomsburyPublishing.
6. Mann, S. (2016). *The research interview: Reflective practice and reflexivity in research processes*. Springer.
7. Marshall,C.,&Rossman,G.B.(2011). *Designing qualitative research*.SAGE.
8. Nielsen,J.(2000).*Designingwebusability*.NewRiders Pub.
9. Raju, N. G. (2009). *Bibliometric applications: Study of literature use patterns*. Akansha Publishing.
10. Rea,L.M.,&Parker,R.A.(2014).*Designingandconductingsurveyresearch:A comprehensive guide*. John Wiley & Sons.
11. Reinard,J. C. (2006).*Communication research statistics*. SAGE.
12. Rowntree,D.(1983).*Statistics withouttears:A primerfor non-mathematicians*. Penguin.

13. Rubin, H.J., & Rubin, I.S. (2012). *Qualitative interviewing: The art of hearing data*. SAGE Publications.
14. Sudman, S. (1976). *Applied sampling*. Academic Press.
15. Wadsworth, Y. (2016). *Everyday evaluation on the run*. Routledge.
16. Williams, F., & Monge, P. R. (2001). *Reasoning with statistics: How to read quantitative research*. Wadsworth Publishing Company.
17. Willis, G. B. (2004). *Cognitive interviewing: A tool for improving questionnaire design*. SAGE Publications.

| PAPERCODE-LIS-401 Research Methodology |      |      |      |      |      |      |      |       |       |       |       |
|--|------|------|------|------|------|------|------|-------|-------|-------|-------|
|  | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1                                   | 3    | 3    | 2    | 0    | 3    | 1    | 3    | 2     | 3     | 2     | 1     |
| CO-2                                   | 3    | 3    | 2    | 0    | 3    | 1    | 3    | 2     | 3     | 2     | 1     |
| CO-3                                   | 3    | 3    | 2    | 1    | 3    | 1    | 3    | 2     | 3     | 2     | 2     |
| CO-4                                   | 3    | 3    | 2    | 1    | 3    | 1    | 3    | 2     | 3     | 2     | 2     |

**PaperNo: 402**  
**Paper Name: INFORMATION SYSTEM AND NETWORKS**

| Credit Distribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|---------------------|---|---|---------------|----------|----------|-------------|
| L                   | T | P | L+T+P         | 30       | 70       | 100         |
| 3                   | 1 | 0 | 04            |          |          |             |

**Objective-** To make the students aware of the different information systems and networks available at national and international level used for data and information exchange.

Course Outcomes: After completion of the course students will be able

CO-1. Understand the basic concept of different information systems and networks.

CO-2. Analyze the work and activities of the National and Global Information system. CO-3

Design the suitable networks and their use in information exchange.

CO-4 Implementation of network services for information exchange in education and research

### Unit 1: Information Systems

- Definition, Types and Characteristics
- Information Organizations and Systems
- Planning and Designing of Information System
- Evaluation of Information System

## Unit2:National Information Systems

- Environmental InformationSystem(ENVIS)
- PatentInformationSystem(PIS)

## Unit3:GlobalInformation Systems

- InternationalSystemforAgriculturalScienceand Technology(AGRIS)
- InternationalNuclearInformationSystem (INIS)
- Information,ServiceforPhysicsEngineeringandComputing(INSPEC)
- MedicalLiteratureAnalysisandRetrievalSystem(MEDLARS)

## Unit 4: Networks

- ResourceSharing andNetworking–ObjectivesandScope
- FeaturesandCharacteristicsofLibraryNetworks
- DataNetworks–NationalInformationCentreNetwork(NICNET),NationalResearch and Education Network (ERNET), National Knowledge Network (NKN)

## RECOMMENDED BOOKS

1. Kaul,H.K. (1999).*Libraryresourcesharingand networks*.Virgo Publications.
2. Lihitkar,S.R.(2012).*StudyofinformationsystemsandnetworksinIndia*.Todayand Tomorrow’s Printers and Publishers.
3. Neelameghan,A.,&Prasad,K.N.(1998).*Informationsystems,networks,andservicesin India: Developments and trends*. Indian Bibliographic Center.
4. Rowley,J.E.(1996). *Thebasicsofinformation systems*.LibraryAssnPub Limited.
5. Simon,R.C.(2018).*Issuesforlibrariesandinformationsscienceintheinternetage*. Libraries Unlimited Inc .
6. Tedd, L. A., & Large, J. A. (2005). *Digital libraries: Principles and practice in a global environment*. Walter de Gruyter.

### CO-PO&PSOMapping(P-402)

| PAPERCODE-LIS-402InformationSystemandNetworks |      |      |      |      |      |      |      |       |       |       |       |
|---|------|------|------|------|------|------|------|-------|-------|-------|-------|
|   | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1  | 1    | 2    | 2    | 2    | 1    | 2    | 2    | 1     | 2     | 1     | 2     |
| CO-2  | 3    | 3    | 2    | 1    | 3    | 3    | 1    | 2     | 1     | 3     | 1     |
| CO-3  | 2    | 1    | 3    | 3    | 2    | 2    | 2    | 3     | 3     | 2     | 3     |
| CO-4  | 3    | 2    | 1    | 2    | 3    | 1    | 3    | 2     | 1     | 3     | 1     |

PaperNo:

403

**Paper Name: KNOWLEDGE MANAGEMENT**

| Credit Distribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|---------------------|---|---|---------------|----------|----------|-------------|
| L                   | T | P | L+T+P         | 30       | 70       | 100         |
| 3                   | 1 | 0 | 04            |          |          |             |

**Objective-** To make the students aware of the need and concepts of knowledge management in the library.

**Course Outcomes:** After completion of the course students will be able

CO1 To remember the basic concepts of Knowledge management in Libraries. CO2

To create professionals as per the requirement of various organizations.

CO3 To analyze the experience, knowledge and challenges of various Professionals in their organization.

CO4 To evaluate the challenges and trends in Knowledge Management.

**Unit 1: Basics of Knowledge Management**

- Concept of Knowledge
- Types of Knowledge: Explicit Knowledge, 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

**RECOMMENDED BOOKS**

1. Anderson, P. (2016). *Web 2.0 And beyond: Principles and technologies*. CRC Press.
2. Atwood, C.G. (2009). *Knowledge management basics*. American Society for Training and Development.

3. Awad,E.M., &Ghaziri,H. M.(2004). *Knowledgemanagement*.PearsonEducation.
4. Becerra-Fernandez, I., & Sabherwal, R. (2014). *Knowledge management: Systems and processes*. Routledge.
5. Cappelli, P. (2010). *The performance effects of it-enabled knowledge management practices*. National Bureau of Economic Research.
6. Dalkir,K.(2017).*Knowledgemanagement intheoryandpractice*.MIT Press.
7. Easterby-Smith, M., & Lyles, M. A. (2011). *Handbook of organizational learning and knowledge management*. John Wiley & Sons.
8. Frappaolo,C.(2006). *Knowledgemanagement*. Capstone.
9. Hislop, D., Bosua, R., & Helms, R. (2018). *Knowledge management in organizations: A critical introduction*. Oxford University Press.
10. Hoffmann, A., Kang, B., Richards, D., & Tsumoto, S. (2006). *Advances in knowledge acquisitionandmanagement:PacificRimKnowledgeAcquisitionWorkshop,PKAW2006, Guilin, China, august 7-8, 2006, revised selected papers*. Springer.
11. Liebowitz, J. (2012). *Knowledge management handbook: Collaboration and social networking, second edition*. CRC Press.
12. Peter,J.P.,&Donnelly,J.H.(2007).*Marketingmanagement:Knowledgeandskills*.Irwin Professional Pub.

| PAPERCODE-LIS-403KnowledgeManagement |      |      |      |      |      |      |      |       |       |       |       |
|--------------------------------------|------|------|------|------|------|------|------|-------|-------|-------|-------|
|                                      | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1                                 | 3    | 2    | 2    | 2    | 1    | 1    | 2    | 2     | 2     | 3     | 2     |
| CO-2                                 | 3    | 2    | 2    | 1    | 2    | 1    | 2    | 2     | 2     | 2     | 2     |
| CO-3                                 | 2    | 2    | 2    | 1    | 2    | 3    | 2    | 1     | 3     | 2     | 2     |
| CO-4                                 | 3    | 2    | 1    | 1    | 1    | 2    | 3    | 3     | 2     | 3     | 2     |

**PaperNo: 404**  
**Paper Name: INFORMATION LITERACY**

| CreditDistribution |   |   | Total Credits | Mid-Term | End-Term | Total Marks |
|--------------------|---|---|---------------|----------|----------|-------------|
| L                  | T | P | L+T+P         | 30       | 70       | 100         |
| 3                  | 1 | 0 | 04            |          |          |             |

### Objective-

1. To introduce to the students the concept of information literacy and its importance in contemporary knowledge society.
2. To make the student familiar with the various models of information literacy and their application.

3. To create knowledge on Information Literacy standards and guidelines, forums and online resources.

Course Outcomes: After completion of the course students will be able: CO-1

Determine the nature and extent of information needed.

CO-2 Access information effectively and efficiently.

CO-3 Evaluate information and resources for their academic work.

CO-4 Develop, implement, and evaluate progress toward achieving personal, academic, career, and lifelong learning goals.

### **Unit 1: Emergence of Information Literacy**

- Information: Characteristics of information, Types of information
- 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,
- International and national initiatives, Policies and guidelines IFLA, ALA, UNESCO, Information literacy skills and best practices.

### **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

## **RECOMMENDED BOOKS**

1. ACRL Information. (2000, January 1). *Information literacy competency standards for higher education*. American Library Association. <http://hdl.handle.net/11213/7668>
2. Association of College and Research Libraries. (2006, July 24). *Presidential Committee on Information Literacy: Final report*. Association of College & Research Libraries (ACRL). <https://www.ala.org/acrl/publications/whitepapers/presidential>



3. Association, A. L. (2000). ACRL STANDARDS: Information literacy competency standards for higher education. *College & Research Libraries News*, 61(3), 207–215. <https://doi.org/19242>
4. AustraliaLibraryandInformationAssociation.(2021,June24).Statementoninformation literacy for all Australians. ALIA Library. <https://read.alia.org.au/statement-information-literacy-all-australians>
5. Bawden, D. (2001). Information and digital literacies: A review of concepts. *Journal of Documentation*, 57(2), 218–259. <https://doi.org/10.1108/eum0000000007083>
6. Bruce,C.S.(1997). *The sevenfacesof informationliteracy*.Auslib Press,.
7. Repplinger, J. (2021, August 31). *Research guides: Information literacy: Goals & objectives*. Willamette University. <https://libguides.willamette.edu/information-literacy>
8. Torras, M.-C., & Saetre, T. (2016). *Information literacy education: A process approach: Professionalising the pedagogical role of academic libraries*. Chandos Publishing.

| PAPERCODE-LIS-404InformationLiteracy |      |      |      |      |      |      |      |       |       |       |       |
|--------------------------------------|------|------|------|------|------|------|------|-------|-------|-------|-------|
|                                      | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | PSO-1 | PSO-2 | PSO-3 | PSO-4 |
| CO-1                                 | 1    | 2    | 2    | 2    | 1    | 2    | 2    | 1     | 2     | 1     | 2     |
| CO-2                                 | 3    | 3    | 2    | 1    | 3    | 3    | 1    | 2     | 1     | 3     | 1     |
| CO-3                                 | 2    | 1    | 3    | 3    | 2    | 2    | 2    | 3     | 3     | 2     | 3     |
| CO-4                                 | 2    | 3    | 2    | 2    | 1    | 1    | 3    | 3     | 1     | 1     | 1     |

**PaperNo: 405**

**Paper Name: DISSERTATION/PROJECTandVIVA-VOCE**

| CreditDistribution |   |   | Total Credits | Dissertation/Project | Viva-voce | Total Marks |
|--------------------|---|---|---------------|----------------------|-----------|-------------|
| L                  | T | P | L+T+P         | 80                   | 20        | 100         |
| 0                  | 4 | 0 | 04            |                      |           |             |

Every Student has to carry out a project work on a topic approved by the Departmental Council, under the guidance of a faculty member and prepare a Dissertation / Project Report. Studentsshould makeapresentation andappearfor aViva-Voceforevaluation and Grading.