Program Specific Outcomes (PSOs)
At the end of the program, the student learns:

PSO₁: The research basics of library and information science in terms of theory and practice will be achieved
PSO₂: Lean to achieve, the different types of research and its practical utility in the society and the course further helps in knowing the recent trends in the field also
PSO₃: The uniqueness of the course is so diversified new research techniques i.e., bibliometrics and scientometrics will be achieved
PSO₄: The students are trained to handle all kinds of statistical techniques including the primary and advanced level including managerial skills
PSO₅: The usability of the research methods is so high that similar methods can be used in different situations other than library and information environment
PSO₆: Training in research ethics will help in future when the students do research on community, ethnic and health related field

Scheme of Examination
PhD Course Work in Library and Information Science

(As per credit system w.e.f. the academic year 2016-17)

Note: The course work will be of one semester. Each student has to earn 12 credits in the course.

<table>
<thead>
<tr>
<th>Sem</th>
<th>Paper Code</th>
<th>Nomenclature</th>
<th>L-T-P</th>
<th>Marks</th>
<th>Duration</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17LIBPC11C1</td>
<td>Research Methodology</td>
<td>4-0-0</td>
<td>20</td>
<td>3 hrs</td>
<td>4+0+0=4</td>
</tr>
<tr>
<td></td>
<td>17LIBPC11C2</td>
<td>Computer Applications in Library and Information Science</td>
<td>4-0-0</td>
<td>20</td>
<td>3 hrs</td>
<td>4+0+0=4</td>
</tr>
<tr>
<td></td>
<td>17LIBPC11C3</td>
<td>Emerging Trends in Library and Information Science</td>
<td>4-0-0</td>
<td>20</td>
<td>3 hrs</td>
<td>4+0+0=4</td>
</tr>
</tbody>
</table>

Credits: C=12

Total Credits: 12
17LIBPC11C1: RESEARCH METHODOLOGY

Course Outcomes (COs)
The students will be able to know:

- **CO1:** the basics of research methods in terms of types, category and its usability;
- **CO2:** how to examine major concepts of research approach in terms of qualitative, quantitative and mixed;
- **CO3:** information about different types of statistical methods and usability;
- **CO4:** research ethics and applicability in different situations;
- **CO5:** the use of special software to handle the complex statistical situation.

Maximum marks: 80
Pass marks: 32
Time: 3hrs.

**Note**
The paper is divided into 4 units. The candidates are required to attempt 5 questions in all, selecting 1 question from each unit, out of two internal choices. Question 1 is compulsory consisting of 8 short answer type questions, spread over the whole syllabus. All questions carry equal marks.

---

**Unit 1: Research**

- Research: Meaning, Definition, Importance, Characteristics
- Types of Research: Pure, Applied and Action Research
- Research Ethics
- Literature search – Print, Non-print and Electronic sources

**Unit 2: Research Design**

- Research Design: Concept, Need and Purpose
- Types of Research Design
- Hypothesis formulation

**Unit 3: Research Methods, Tools and Techniques**

- Research Methods: Scientific, Historical, Case Study, Survey, Experimental
- Research Tools: Questionnaire, Interview, Schedule, Observation
- Sampling Techniques

**Unit 4: Statistical Techniques**

- Measures of Central Tendency: Mean, Median, Mode
- Measures of Dispersion, Variance and Covariance
- Standard Deviation
- Presentation of Data: Tabular, Graphic, Bar Diagram, Pie Chart, etc.
- Data Analysis: Use of SPSS
Suggested Reading:

17LIBPC11C2: COMPUTER APPLICATIONS IN LIBRARY AND INFORMATION SCIENCE

Course Outcomes (COs)
The students will be able to know:
  CO1: the computer basics in terms of software and hardware;
  CO2: major areas of computer applications in handling library operations;
  CO3: about software handling;
  CO4: about use of internet and e-resources;
  CO5: about modern computing techniques used in blog, websites and other social networking platforms.

Maximum marks: 80
Pass marks: 32
Time: 3hrs.

Note
The paper is divided into 4 units. The candidates are required to attempt 5 questions in all, selecting 1 question from each unit, out of two internal choices. Question 1 is compulsory consisting of 8 short answer type questions, spread over the whole syllabus. All questions carry equal marks.

Unit 1: Library Automation

- Library Automation: Definition, Need and Purpose
- Planning and Implementation of Library Automation
- Automation of Library Housekeeping Operations
- Library Application Software Packages: SOUL, LIBSYS, WINISIS

Unit 2: Communication Technology

- Communication Technologies: Media and Mode
- Network Types: LAN, MAN, WAN
- Network Topologies
- Components of LAN: Servers, PCs etc., Network Interface Card, Hubs, Routers, Modems, UPSs

Unit 3: Library Networks and Consortia

- Library Networks in India- DELNET, INFLIBNET
- Library Networks at International Level: OCLC, JANET, RLIN
- Library Consortia in India: UGC-INFONET, INDEST

Unit 4: Internet

- Internet Services
- Internet Protocols: FTP, HTTP
• Standards: OSI Reference Model
• Web Tools: Web browsers (Netscape, Internet Explorer, etc.), Search Engines (Google, Yahoo), E-mail
• Internet Security

Suggested Reading:

17LIBPC11C3: EMERGING TRENDS IN LIBRARY AND INFORMATION SCIENCE

Course Outcomes (COs)
The students will be able to know:

CO1: the general trend in which the discipline of LIS is moving;
CO2: to identify major areas in which the researchers are doing research;
CO3: the doctoral contribution in the field in terms the research guide and their field of research;
CO4: the professional developments in the profession;
CO5: the employability areas and to thrive on it.

Maximum marks: 80
Pass marks: 32
Time: 3hrs.

Note
The paper is divided into 4 units. The candidates are required to attempt 5 questions in all, selecting 1 question from each unit, out of two internal choices. Question 1 is compulsory consisting of 8 short answer type questions, spread over the whole syllabus. All questions carry equal marks.

Unit 1: Digital Libraries and Institutional Repositories

- Digital Library- Genesis, Definition, Objectives and Scope
- Digitization process: Input Capture Devices
- Digital Library Software: Greenstone and Dspace
- Metadata: Types, Dublin Core
- Institutional Repositories: Concept, Need

Unit 2: Information Society

- Information Society- Genesis, Characteristics and Implications
- Changing Role of Library and Information Centres in Society
- Information Industry: Generators, Providers and Intermediaries

Unit 3: Electronic Resources

- Electronic Resources- Concept, Features, Characteristics
- Types of Electronic Resources
- Collection Development of Electronic Resources
- Access Channels for Electronic Resources

Unit 4: Information Services and Information Literacy

- Information services: Concept, Definition, Need
- Alerting services: Computerized CAS and SDI
- Information Literacy: Concept, Definition, Need
- ACRL Standards for Information Literacy
Information Literacy Models

Suggested Reading: