# POST-GRADUATE DEGREE PROGRAMME
## Term End Examination : December, 2024
## MASTER OF LIBRARY & INFORMATION SCIENCE
## PAPER - VI
## INFORMATION TECHNOLOGY : APPLICATIONS

Time : 4 hours                    Full Marks : 100

( Weightage of Marks : 80% )

**Special credit will be given for precise and correct answer. Marks will be deducted for spelling mistakes, untidiness and illegible handwriting. The figures in the margin indicate full marks.**

### GROUP – A

Answer any ***two*** of the following questions :               18 × 2 = 36

1.  What do you understand by search algorithm ? Discuss different sorting algorithms to manage library records.                    4 + 14

2.  Explain the role of 'client-server' architecture in modern library management system. Discuss how 'cloud-based' network architecture enhance library services.                    8 + 10

3.  Explain the 'relational data' model with example of tables for 'Book', 'Member' and 'Transaction' in a library. Enumerate '12 Rules' that define the basic characteristics of a 'relational detabase'.                    10 + 8

4.  Describe how the essential core modules of an integrated library system contribute to efficient library operations with example. Discuss the role of MARC-21 standard to facilitate bibliographic data exchange between libraries.                    12 + 6

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## GROUP – B

Answer any **three** of the following questions :    12 × 3 = 36

5.  Explain the significance of the Z39·50 Protocol in library automation. How does it enable federated searching across multiple library catalogue ? 6 + 6

6.  Describe 'record structure' as given by ISO-2709. How ISO-2709 facilitates the exchange of MARC bibliographic records between library automation systems ?    8 + 4

7.  State different phases of Retrospective Conversion in a library.

8.  Describe the salient features of 'PostgreSQL' database. Which standards are supported by SOUL ?    9 + 3

9.  Enumerate the typical default directories found in UNIX/LINUX operating system. What are the various file permissions can be set in UNIX/LINUX that defines whether certain action can be carried out or not ?    6 + 6

10. Discuss various types of Network cabling and Network topologies.    6 + 6

## GROUP – C

Write short notes on any **four** of the following questions :    7 × 4 = 28

11. Pros & Cons of flowchart

12. HTTP/HTTPs

13. Packet switching

14. Computer *vs* Interpreter

15. NTFS file systems

16. Wild Card Characters

17. Open URL Resolution

18. UNICODE.

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