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**MLI-003**

**POST GRADUATE DIPLOMA IN  
LIBRARY AUTOMATION AND  
NETWORKING (PGDLAN)**

**Term-End Examination**

**December, 2023**

**MLI-003 : INFORMATION SYSTEMS**

*Time : 2 Hours*

*Maximum Marks : 50*

*Weightage : 40%*

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**Note :** *Answer all questions. All questions carry equal marks. Illustrate your answers with suitable examples and diagrams, wherever necessary. Write relevant question number before writing the answer.*

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1. Describe the basic phases of a system's life cycle. Discuss the various stages of system development.

*Or*

What are the procedural components of systems analysis ? Draw a flowchart illustrating its use as a tool in the process of systems analysis.

**P. T. O.**

2. Describe different information retrieval models based on theories and tools.

*Or*

What is a Relational Database Management System (RDBMS) ? List the characteristics of a relation and explain the concept of normalisation of relations.

3. Explain 'E-R diagram' and its role in data modelling.

*Or*

What is a transaction ? Explain serial and concurrent execution of transactions and their role in database maintenance.

4. What are Boolean operators ? Explain their use with suitable examples.

*Or*

What is data manipulation language ? Discuss *five* SQL commands for data manipulation giving examples.

5. Write short notes on any *two* of the following in about **250** words each :

- (a) Data Warehousing and Data Mining
- (b) Structure of Expert Systems
- (c) Inverted Lists
- (d) Major issues/challenges of Digital Libraries.