No. of Printed Pages : **2**

MLI-003

00799

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

June, 2011

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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

1.1 What do you understand by the term 'systems approach' in the study of systems ? Discuss the main components of a system.

OR

1.2 Discuss the stages of system implementation, evaluation and documentation in the process of system development.

2.1 Explain 'Management Information System' (MIS). Discuss the structure of a Decision Support System (DSS).

OR

2.2 Discuss the criteria for evaluation of information retrieval systems.

3.1 Describe the steps involved in designing a database. Explain entity - relationship model and its role in database design process.

OR

3.2 Discuss hierarchical, network and relational data models with illustrations.

4.1 Discuss the major issues and challenges in the development of digital libraries.

OR

4.2 Discuss the evolution of Database Management Systems (DBMS) and the goals of a DBMS.

5.0 *Write short note on* ***any two*** *of the following (in about* ***250 words*** *each) :*

(a) Binary search

(b) Data integrity and data independence

(c) Inverted lists

(d) Artificial intelligence.

No. of Printed Pages : 2

MLI-003

00118

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

December, 2011

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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

1.1 What is an information system ? Discuss its components and types.

OR

1.2 Discuss the principles and process of system design.

2.1 Distinguish between known -item and unknown-item search. Describe the different types of unknown-item searches.

OR

2.2 Enumerate the different types of DBMS. Describe RDBMS.

3.1 Define a management information system. Discuss its design and development.

OR

3.2 What is a digital library ? Discuss its characteristics.

4.1 Distinguish between file organisation and access methods. Describe different file access methods.

OR

4.2 What is data definition language ? Describe its application with an example.

5.0 Write short notes on ***any two*** of the following (in about ***250*** words of each) :

(a) Conceptual schema

(b) Digitisation.

(c) Object-oriented data-model.

(d) Keys in query language.

No. of Printed Pages : 2

MLI-003

00092

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

June, 2012

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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

1.1 Explain the concepts 'system' and 'system approach'.

OR

1.2 Enumerate the different types of information retrieval models. Describe the linguistic and user models.

2.1 Discuss the criteria on the basis of which an information retrieval system can be evaluated.

OR

2.2 What is a decision support system ? How is it different from a management information system ? Describe its structural components.

3.1 Discuss the issues and challenges in the development of digital libraries.

OR

3.2 What are the advantages and disadvantages of normalization of relations ? Discuss the different normal forms.

4.1 Discuss the need for a DBMS. Describe various generations of DBMS.

OR

4.2 Explain different Boolean operators with examples.

5.0 Write short notes on *any two* of the following (in about *250* words) each :

(a) Role of a system analyst

(b) Recall and precision

(c) Data mining

(d) Inverted lists.

No. of Printed Pages : **2**

MLI-003

00794

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

December, 2012

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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

1.1 Explain the steps involved in system design. Describe the principles of a well-designed system.

OR

1.2 What is an information system ? Describe its different types.

2.1 Discuss the information retrieval models based on theories and tools.

OR

2.2 Explain the criteria for evaluation of an information retrieval system.

3.1 Describe the significant steps in the design of a database discussing the E-R diagram and its role in the design process.

OR

3.2 What is a digital library ? Discuss the major issues and challenges involved in its development.

4.1 Explain the concept of 'file organisation'. Discuss various file access methods.

OR

4.2 Describe in brief data definition language (DDL) and data manipulation language (DML).

5.0 Write short notes on **any two** of the following (in about 250 words each) :

(a) Expert systems

(b) Hierarchical data model

(c) Data warehousing and data mining

(d) Cost of a JOIN operation

No. of Printed Pages : 2

MLI-003

00553

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

June, 2013

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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

1.1 Discuss the basics of general systems theory. List some important facts of systems approach.

OR

1.2 Explain the process of system implementation.

2.1 Differentiate between 'known-item search' and 'unknown-item search'. Discuss the different methods of 'unknown-item search'.

OR

2.2 'The conceptualisation of the database management system starts with the definition of schema'. Explain the statement bringing out clearly the importance of logical schema and a physical schema.

3.1 Discuss the concept of "expert system". Explain the steps involved in its construction.

OR

3.2 Discuss the important points to be considered in developing a digital library.

4.1 Explain the architecture of a distributed database. Discuss the justifications and options for distributing data.

OR

4.2 Discuss the general strategies for query optimization.

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

(a) Data definition language (DDC)

(b) Normal forms

(c) Digital library

(d) Decision support system

No. of Printed Pages : **2**

MLI-003

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

December, 2013

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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

1.1 Define the term 'System'. Explain the process of system analysis and role of a systems analyst.

OR

1.2 What do you understand by system development cycle ? Explain the stages involved in system development.

2.1 What is an expert system ? Discuss its main components and methods of knowledge representation.

OR

2.2 What is the need for MIS ? Explain the process of implementation, evaluation and maintenance of an MIS.

3.1 Discuss different data models. What are the criteria for a DBMS to be relational ?

OR

3.2 What do you understand by normalization of relations ? Discuss its significance in database design. Explain third normal form.

4.1 What is a transaction ? Explain the serial or concurrent executions of transactions and their role in database maintenance

OR

4.2 Explain the architecture of a distributed database system. What are the justifications and options for distributing data ?

5.0 Write short notes on **any two** of the following (in about **250** words each) :

(a) Boolean operators

(b) Flow charts

(c) Indexes

(d) Digital libraries and their uses

No. of Printed Pages : 2

MLI-003

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

00692

June, 2014

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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.*

1.1 Discuss the evaluation methodology and criteria of an Information Retrieval System (IRS).

OR

1.2 Define a Decision Support System (DSS). Illustrate the structure of DSS and discuss its components.

2.1 Discuss the architecture of a Database Management System (DBMS) with illustration. Explain the purpose of views in database architecture.

OR

2.2 Enumerate the characteristics of a relation. Discuss second normal form with an example.

3.1 Discuss the general strategies for query optimization. Explain the role of JOIN operator in query formulation.

OR

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

4.1 What are the principles of a well-designed system ? Discuss the steps involved in the system design process.

OR

4.2 What is file organization ? Enumerate its methods and discuss any two of them.

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

(a) Object-oriented data model

(b) MIS

(c) Data warehousing and Data mining

(d) Proximity operators

No. of Printed Pages : **2**

MLI-003

00185

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

December, 2014

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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

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

OR

1.2 What do you understand by system development cycle ? Discuss different stages involved in system development.

2.1 Why there is a need for MIS ? Discuss the tasks related to implementation, evaluation and maintenance of an MIS.

OR

2.2 What is an expert system ? Explain the structure of an expert system with illustration.

3.1 Describe the architecture of a Database Management System (DBMS) with illustration. Explain the purpose of views in the database architecture.

OR

3.2 What are the criteria for a DBMS to be relational ? Discuss different types of keys and their functions.

4.1 Discuss the general strategies for query optimization. Explain the role of Join operator in query formulation.

OR

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

5.0 Write short notes on **any two** of the following (in about **250 words** each) :

(a) Structured Query Language (SQL)

(b) Data models

(c) Artificial intelligence

(d) Distributed database systems

No. of Printed Pages : 3

MLI-003

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

00218

Term-End Examination

June, 2015

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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.*

1.1 Discuss the basics of the general systems theory. Explain the concept of 'systems approach' and enumerate the elements of this approach.

OR

1.2 Discuss the different search strategies employed in bibliographical information retrieval environment and list the basic search tools used in such an environment.

2.1 What is a Decision Support System (DSS) ? Illustrate the structure of DSS and explain how a DSS differs from an MIS.

OR

2.2 Discuss the chronological evolution of Database Management System (DBMS) and the goals of a DBMS.

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

OR

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

4.1 Discuss the cost of operators SELECT, PROJECT and JOIN in the structured query formulation. Explain the difference between physical and logical query optimisation.

OR

4.2 What is a Venn diagram ? Explain Boolean operators using Venn diagrams.

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

(a) Data Definition Language (DLL)

(b) Characteristics of Digital Libraries

(c) Object-oriented Data Model

(d) Internet Searching

No. of Printed Pages : 2

MLI-003

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

10450

Term-End Examination

December, 2015

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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

1.1 What do you understand by the term 'systems approach' ? Discuss the main components of a system.

OR

1.2 Discuss the principles and process of system design.

2.1 Distinguish between file organisation and access methods. Describe different file access methods.

OR

2.2 What is Database Management System (DBMS) ? Discuss the functions and components of a DBMS.

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

OR

3.2 Define a Decision Support System (DSS). Illustrate its structure and discuss the components.

4.1 What is artificial intelligence ? Discuss its areas of application.

OR

4.2 Explain the use of Boolean operators in searching, using Venn diagrams.

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

(a) Normalization of Relations

(b) Memory Hierarchy

(c) Structured Query Language

(d) Inverted Lists

No. of Printed Pages : 2

MLI-003

00359

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

June, 2016

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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

1.1 What is an information system ? Discuss its different types.

OR

1.2 What do you understand by 'information retrievial' ? Discuss the techniques and processes involved in it.

2.1 'The concept of database has evolved from file management system'. Justify the statement discussing the structure and design of a database.

OR

2.2 What is a digital library ? Discuss its characteristics.

3.1 Discuss the need and objectives of a DBMS. Describe their chronological evolution.

OR

3.2 Discuss the general strategies for query optimization. Explain the role of JOIN operator in query formulation.

4.1 Discuss the criteria for evaluation of an information retrievial system.

OR

4.2 What is a normal form ? Describe its different types.

5.0 Write short notes on **any two** of the following (in about **250** words each) :

(a) Expert systems

(b) Need of MIS

(c) RAID Technology

(d) Data Definition Language

No. of Printed Pages : 2

MLI-003

00342

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

December, 2016

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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.*

1.1 Define a 'system'. What are the major components of a 'system' ? Describe role of each of these components. **2+8=10**

OR

1.2 What is an 'information system' ? Discuss the use of General Systems Theory in designing an 'information system'. **2+8=10**

2.1 Define Normalization. Why is it required ? Explain different 'forms of normalization' with example. **1½+1½+7**

OR

2.2 Differentiate between 'data definition language' and 'data manipulation language'. Explain with the help of an example, the following commands of RDBMS : **4+6**

(a) CREATE

(b) INSERT

(c) UPDATE

3.1 Explain the role of DBMS as decision support tool. Illustrate the architecture of distributed database systems. **4+6**

OR

3.2 Make a comparative study of 'data retrieval' and 'information retrieval'. Describe the 'user model' in information retrieval. **6+4**

4.1 What is 'Boolean Search' ? Explain the 'AND gate' and 'OR gate' with suitable examples. **2+8**

OR

4.2 Define a Data structure. Make a comparison between 'Linked Lists' and 'Inverted Lists'. **2+8**

5.0 Write short notes on **any two** of the following (in about **250** words each) : **5+5**

(a) Expert system

(b) Flow charting and its symbols

(c) Data mining

(d) Object-oriented data model.

No. of Printed Pages : 2

MLI-003

00661

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

June, 2017

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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.*

1.1 Define 'system analysis' ? Analyze library house keeping operations through system analysis techniques. 3+7

OR

1.2 What do you mean by 'General systems theory' ? Discuss the principles of system design. 2+8

2.1 What are the components of an Information retrieval system ? Illustrate design of Information retrieval system. 5+5

OR

2.2 Describe the general structure of a DBMS. Discuss the feature of RDBMS. 5+5

3.1 What is Entity - Relationship diagram ? Illustrate the model with a suitable example. 2+8

OR

3.2 Enumerate advantages of MIS. Write down the steps for designing a MIS. 3+7

4.1 What is SQL ? Explain the use of SELECT and UNION in SQL query formulation. 2+8

OR

4.2 What are the major areas of AI techniques ? Explain the role of Inference engine in expert systems. 2+8

5.0 Write short notes on **any two** of the following (in about **250** words each) : 5+5

(a) System Development Life Cycle

(b) System Design

(c) Boolean Operators

(d) Array Data Structure

No. of Printed Pages : **2**

MLI-003

00471

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

December, 2017

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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

1.1 What is an information system ? Describe briefly major features of different types of information systems. **10**

OR

1.2 What is information retrieval system ? Describe 'data retrieval' and 'information retrieval'. **10**

2.1 What do you mean by DBMS ? Explain with illustration logical schema and physical schema of a DBMS. **10**

OR

2.2 What is distributed database system ? Explain with illustration architecture of a distributed database system. **10**

3.1 What is SQL ? Explain any four SQL commands with example (taking two for data definition and two for data manipulation). **2+8**

OR

3.2 What is an expert system ? Describe the architecture of an expert system with illustration. **10**

4.1 What is a digital library ? Discuss different views related to the potential properties of digital library. **10**

OR

4.2 Define relational data model. Enumerate the criteria for a DBMS to be relational. **10**

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

(a) MIS : planning and strategies.
(b) Object oriented data model.
(c) Data structure : Inverted lists.
(d) System Life Cycle.

No. of Printed Pages : 2

MLI-003

00105

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

June, 2018

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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

1.1 Define a System. Give an overview of the system with the help of a diagram. **10**

OR

1.2 Describe different information retrieval models based on theories and tools. **10**

2.1 Define DBMS. Discuss characteristic features of three major types of DBMS. **10**

OR

2.2 Discuss the steps related to 'planning' and 'designing' of MIS. **10**

3.1 What is 'Data structure' ? Explain 'B-Trees' as a form of data structure. **10**

OR

3.2 Explain with examples any five major SQL commands. **10**

4.1 Explain the use of 'Selection' and 'Join' in SQL. **10**

OR

4.2 What do you mean by 'search strategy' ? Describe different types of 'Proximity Operators' applicable in Internet Searching. **10**

5.0 Write short notes on **any two** of the following in about **250** words each. **10**

(a) Decision Support System

(b) Expert System

(c) E-R based data modelling

(d) Types of Information Systems

No. of Printed Pages : 2

MLI-003

00791

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

December, 2018

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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

1.1 Explain the steps involved in system design. Describe the principles of a well-designed system.

OR

1.2 What are the different data models ? Explain with illustration the network model.

2.1 What is Database Management System (DBMS) ? Discuss the functions and components of a DBMS.

OR

2.2 What do you understand by normalization of relations ? Explain the steps involved in designing databases.

3.1 Define a Management Information System. Discuss its design and development.

OR

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

4.1 Describe in brief Data Definition Language (DDL) and Data Manipulation Language (DML).

OR

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

5.0 Write short notes on **any two** of the following (in about **250** words each) :

(a) Artificial intelligence

(b) Data warehousing and data mining

(c) Recall and precision

(d) Keys in query language

No. of Printed Pages : 2

MLI-003

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

00493

Term-End Examination

June, 2019

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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

1.1. What do you understand by the term 'Systems approach' ? Discuss the main components of a system.

OR

1.2. Discuss the different search strategies employed in bibliographic information retrieval environment and list the basic search tools used in such an environment.

2.1. Discuss the information retrieval models based on theories and tools.

OR

2.2. Explain the criteria for evaluation of an information retrieval system.

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

OR

3.2. Discuss the concept of "expert-system". Explain the steps involved in its construction.

4.1. What is a Venn diagram ? Explain Boolean operators using Venn diagrams.

OR

4.2. Explain the architecture of a distributed database system. What are the justifications and options for distributing data ?

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

(a) Database Management System (DBMS)

(b) Memory Hierarchy

(c) Normalization of Relations

(d) Structured Query Language (SQL)

No. of Printed Pages : 1

MLI-003

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

December, 2019

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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.*

1.1 Explain the steps involved in system design. Describe the principles of a well-designed system.

OR

1.2 Distinguish between known item and unknown item search. Describe the different types of unknown item searches.

2.1 What is an expert system ? Explain the structure of an expert system with illustrations.

OR

2.2 Enumerate the different types of DBMS. Describe RDBMS.

3.1 Discuss the cost of operators SELECT, PROJECT and JOIN in the structured query formulation.

OR

3.2 Discuss hierarchical, network and relational data models with illustrations.

4.1 Distinguish between file organisation and access methods. Describe different file access methods.

OR

4.2 What is a Venn diagram ? Explain Boolean Operators using Venn diagrams.

5.0 Write short notes on **any two** of the following (in about 250 words each) :

(a) Need of MIS
(b) Inverted Lists
(c) Artificial Intelligence
(d) Proximity Operators

No. of Printed Pages : 3

MLI-003

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

June, 2020

MLI-003 : INFORMATION SYSTEMS

Time : 2 Hours *Maximum Marks : 50*

(Weightage : 40%)

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.*

1. What is an information system ? Discuss its different types. 10

Or

Explain the criteria for evaluation of an information retrieval system.

P. T. O.

2. Define a decision support system (DSS). Illustrate the structure of a DSS and discuss its components. 10

Or

Enumerate the characteristics of a relation. Discuss second normal form with an example.

3. Describe the steps involved in designing a database. Explain entity-relationship model and its role in database design process. 10

Or

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

4. Discuss the general strategies for query optimization. Explain the role of Join operator in query formalization. 10

Or

Describe in brief data definition language (DDL) and data manipulation language (DML).

5. Write short notes on any ***two*** of the following (in about ***250*** words each) : 10

(a) Role of a system analyst

(b) Characteristics of digital libraries

(c) Memory hierarchy

(d) Architecture of a DBMS

1000

No. of Printed Pages : 2

MLI-003

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

February, 2021

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours *Maximum Marks : 50*

(Weightage : 40%)

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

1.1 Explain the concept of System Analysis. Describe its procedural elements. *10*

OR

1.2 Explain the system implementation process in detail.

2.1 Explain the criteria for evaluating an information retrieval system. *10*

OR

2.2 What is the main role of Data Definition Language ? Discuss different features of Data Manipulation Language.

3.1 Discuss tools for the construction of an expert system. Give examples of such a system in Library and Information Science. *10*

OR

3.2 Discuss different characteristics and issues of a digital library.

4.1 What is 'Data Model' ? Explain 'Relational Model' as a form of data structure to represent the data in a real world. *10*

OR

4.2 What are Boolean Operators ? Explain their use with suitable examples.

5.0 Write short notes on any ***two*** of the following in about 250 words each : *2×5=10*

(a) Data Flow Diagram

(b) Recall and Precision

(c) B-Trees

(d) Artificial Intelligence