

Roll No. :

Total No. of Questions : 11]

[Total No. of Printed Pages : 3

BPP-1113

M.Sc. (Previous) Examination, 2022

INFORMATION TECHNOLOGY

Paper - MIT-106

(Relational Database Management System)

Time : 3 Hours]

[Maximum Marks : 50

Section-A

(Marks : 2 × 10 = 20)

Note :- Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

Section-B

(Marks : 3 × 5 = 15)

Note :- Answer all *five* questions. Each question has internal choice (Answer limit **200** words). Each question carries **3** marks.

Section-C

(Marks : 5 × 3 = 15)

Note :- Answer any *three* questions out of five (Answer limit **500** words). Each question carries **5** marks.

Section-A

1. (i) What is DBMS ?
- (ii) What do you understand by E-R Model ?

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- (iii) Explain the structure of Relational Database.
- (iv) What do you mean by Tuple Relational Calculus ?
- (v) What are Constraints ?
- (vi) Explain Referential Integrity.
- (vii) What do you understand by PL/SQL ?
- (viii) What are Database Triggers ?
- (ix) What is Buffer Management Serializability ?
- (x) Discuss concurrency control in brief.

Section-B

2. What do you understand by Hierarchical Data Model ?

Or

Explain Codd's Rules.

3. Discuss file organization in brief.

Or

How is index sequential file organization differ from sequential file organization ?

4. Explain Insert, Update and Delete SQL commands with examples.

Or

What is Granting Privilege ? Explain with suitable example.

5. Discuss composite data types and cursors.

Or

Differentiate the following :

- (i) Tables Vs Array
- (ii) Query Vs Sub-queries

6. Explain types of failures and audit trails with examples.

Or

Explain recovery and security of database with examples.

Section-C

7. What is Normalization ? Discuss types of normal forms.

8. Explain Hash-Indexing and B-tree file organization.

9. Explain DDL, DML and DCL in detail.

10. Discuss character set and control structure of PL/SQL.

11. Explain Locking Scheme, Deadlock Detection and Avoidance.