

S.No. : 173

BCADS 1204

No. of Printed Pages : 03

Following Paper ID and Roll No. to be filled in your Answer Book.

**PAPER ID : 15804**

Roll  
No.

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**B. C. A. Examination 2021-22**

**(Even Semester)**

**RELATIONAL DATABASE MANAGEMENT  
SYSTEM USING SQL**

*Time : Three Hours]*

*[Maximum Marks : 60*

**Note :-** Attempt all questions.

**SECTION - A**

1. Attempt all parts of the following : 8 × 1 = 8
- (a) Define schema.
  - (b) List four advantages of DBMS.
  - (c) Define database instance.
  - (d) List any four advantages of normalizing a database.

**[ P. T. O.**

- (e) Define entity set.
- (f) What are the disadvantages of file processing system?
- (g) What is functional dependency?
- (h) What is database recovery?

### SECTION – B

2. Attempt any two parts of the following :  $6 \times 2 = 12$
- (a) Define normalization. Explain 1st NF.
  - (b) Define data models. Explain relational data model.
  - (c) Explain file organisation and its types.
  - (d) Explain Dr. E. F Codd's rule for RDBMS.

### SECTION – C

**Note:-** Attempt any two parts of the following. Each part carry equal marks.  $8 \times 5 = 40$

3. (a) What are different types of languages that are available in DBMS? Explain any two.

- (b) Explain entity, entity type and entity set in DBMS.
  - (c) How to recover from transaction failure? Explain.
- 4.
- (a) What are different types of relationship in DBMS?
  - (b) What are the 3 levels of data abstraction? Explain.
  - (c) Differentiate between truncate and drop command in SQL.
- 5.
- (a) What is transaction? Define its properties.
  - (b) What is dirty read problem in DBMS?
  - (c) Explain 2NF and 3NF in detail.
- 6.
- (a) What is E-R model? Draw E-R model of hospital management system.
  - (b) Write Armstrong rules.
  - (c) Explain operations of transactions in detail.

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