

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

Sub. Code :

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Exam. Code :

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Bachelor of Computer Applications 4th Semester

(2053)

DATABASE MANAGEMENT SYSTEM

Paper-BCA-16-405

Time Allowed : Three Hours] [Maximum Marks : 65

Note :— Attempt **five** questions, selecting **one** question from each Section. Section-A is compulsory.

SECTION—A

(Compulsory)

1. Write in short :

- | | |
|---|---|
| (i) Define Commit and RollBack. | 3 |
| (ii) Data Independence. | 3 |
| (iii) What are Cursors ? Write their types. | 3 |
| (iv) Null values. | 2 |
| (v) Explain Functional dependencies. | 2 |

SECTION—B

2. (a) Write characteristics of Database approach. Differentiate between File system and DBMS. 6
- (b) Explain the architecture of DBMS system along with its various components. 7

3. What are ER diagrams ? Why are they required ? Design an ER Diagram on Hospital. Make required assumptions. 13

SECTION—C

4. (a) Differentiate between Network and Hierarchical model. 6
(b) What is the use of Relational Algebra ? Explain its basic operations. 7
5. (a) What is Normalization ? Explain 1NF, 2NF and 3NF. 7
(b) What are 12 Codd's Rule ? 6

SECTION—D

6. (a) What are Tables ? Explain various table related commands. 6
(b) What are privileges ? How privileges are managed by Grant and Revoke command ? Explain with example. 7
7. (a) What is query ? Explain the complete syntax for performing a query in SQL. 6
(b) What are functions ? Explain aggregate functions and group functions. Give examples. 7

SECTION—E

8. (a) Explain various types of set operators with help of example. 6
(b) Explain the block structure of PL/SQL. Give an example. 7
9. (a) What are database Triggers ? Explain different types of triggers with example of each. 7
(b) How is exception handling performed in PL/SQL ? Explain. 6