

7238

BOARD DIPLOMA EXAMINATION, (C-20)

FEBRUARY/MARCH — 2022

DCME - THIRD SEMESTER EXAMINATION

DATABASE MANAGEMENT SYSTEM

Time: 3 hours [Total Marks: 80

PART—A

 $3 \times 10 = 30$

Instructions: (1) Answer **all** questions.

- (2) Each question carries three marks.
- (3) Answers should be brief and straight to the point and shall not exceed five simple sentences.
- 1. Define Database Administrator (DBA).
- **2.** List the properties of candidate keys.
- 3. How do you create a self-join in SQL?
- **4.** Give the syntax of basic CREATE TABLE statement and give an example.
- **5.** What is a sub-query? Give an example.
- 6. List any four PL/SQL LOB data types.
- 7. Write the syntax for if-then-else statement in PL/SQL.
- **8.** Define %FOUND and %ISOPEN attributes in PL/SQL.
- 9. List any four characteristics of NoSQL.
- **10.** List the properties of ACID system.

PART—B 8×5=40

Instructions: (1) Answer **all** questions.

- (2) Each question carries eight marks.
- (3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.
- 11. (a) Explain different mapping cardinalities in DBMS.

(OR)

- (b) Explain the components of ER diagram in DBMS.
- 12. (a) Explain any five DML commands in SQL with syntax.

(OR)

- (b) Explain any five arithmetic and any five relational operators available in SQL.
- **13.** (a) Explain the usage of user defined functions in PL/SQL with example.

(OR)

- (b) Explain declaration and naming convention of variables in PL/SQL.
- **14.** (a) Explain creation of database trigger with example in PL/SQL.

(OR)

- (b) Explain propagation and re-raising of exceptions in PL/SQL.
- **15.** (a) Compare NoSQL with RDBMS.

(OR)

(b) Explain any four data types of mongoDB.

PART—C $10 \times 1 = 10$

Instructions: (1) Answer the following question.

- (2) The question carries ten marks.
- (3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.
- **16.** Can you develop a PL/SQL program to check whether the inputted number by the user is even or odd without using simple if. If no, justify your answer and if yes, write the appropriate code using PL/SQL block with proper exceptions.

