PGDCA

Term End Examination, 2019-20

Paper-V

RDBMS (Oracle)

Time : Three Hours]   [Maximum Marks : 100

[Minimum Pass Marks : 40

Note : Answer any **two** questions from each unit and Question Number 1 is compulsory. The figures in the right-hand margin indicate marks.

1. Choose the correct answer of the following questions:-   [2 x 15]

   (a) DBMS manages the interactions between _____ and database.

       (i) users   (ii) clients (iii) End users (iv) Stake holders

   (b) The _____ level helps application programs hide the details of datatypes.

       (i) physical   (ii) logical (iii) user (iv) view

   (c) Which of the following is the oldest database model?

       (i) Relational   (ii) Hierarchical (iii) Physical (iv) Network

   (d) What is the minimal super key?

       (i) Primary key   (ii) Candidate key (iii) Alternate key (iv) Unique key

   (e) In SQL which command is used to change a table's storage characteristics?

       (i) Alter table   (ii) Update table (iii) Modify table (iv) All of the Above

   (f) The UPDATE SQL Clause can-

       (i) update only one row at a time   (ii) update more than one row at a time

       (iii) delete more than one row at a time (iv) None of these

   (g) Which of the following is not a valid SQL data type?

       (i) Decimal   (ii) Numeric (iii) Float (iv) Character

   (h) A function that has no partial functional dependencies is in-

       (i) 3 NF   (ii) 2 NF (iii) 4 NF (iv) BCNF

   (i) Third normal form is based on the concept of-

       (i) Join dependency   (ii) Transitive dependency

       (iii) Functional dependency (iv) Normal dependency

   (a) The file organization that provides very fast access to any arbitrary record of a file is-

       (i) Ordered file   (ii) Unordered file (iii) Hashed file (iv) B - tree

   (k) How many types of join operation is in relational algebra.

       (i) 2   (ii) 3   (iii) 4   (iv) 5

   (l) Which of the following is not an integrity constraint?

       (i) not null   (ii) unique (iii) identical (iv) check

   (m) A _____ is a statement that the system executes whenever a database is modified.

       (i) Trigger (ii) Function   (iii) Package   (iv) Protocol

   (n) The entity relationship set is represented in E – R diagram as-

       (i) Double diamonds (ii) Rectangles (iii) Dashed lines   (iv) Diamond

   (o) SQL is-

       (i) Relational model   (ii) Network model (iii) Hierarchical mode (iv) None of these

Unit – I

2. Explain in details DBMS architecture with diagram. [7]
3. Write short notes on the following:- [7]
   (i) Database users   (ii) Client/server database
4. What is Database Management System? Explain the role of Database Administration. [7]

Unit – II

5. Explain the process of specialization and Aggregation. [7]
6. What is E – R diagram? Construct E – R diagram for Bank management system. [7]
7. Write the difference between following:- [7]
   (i) Weak entity and strong entity set   (ii) Primary key of Unique key

Unit – III

8. What is set operation? Explain different set operations with example. [7]
9. What is join? Explain natural Join, equi join and outer join with example. [7]
10. Explain the following clauses with example:- [7]
    (i) From   (ii) Where (iii) Group by (iv) Order by

Unit – IV

11. What is objective of Normalization? Explain 4 NF and 5 NF normal form. [7]
12. Explain functional dependency, compare BCNF and 3 NF. [7]
13. Write short notes on the following:- [7]
    (i) File organization for relational tables (ii) Clustering indexes

Unit – V

14. What is integrity constraints? Explain Referential integrity. [7]
15. Explain the security specification and authorization in SQL. [7]
16. What is query processing? Explain parsing, translation, optimization an evaluation in query processing.
    [7]