

**Faculty Code : 003****Subject Code : 003310****Time : 2½ Hours]****[Total Marks : 70**

- Instructions :** (1) There are 3 questions.  
(2) All questions are compulsory.

1. Give answers of following MCQs : 20

- (1) Which of the following are Data Models ?
  - (a) The Hierarchical Model
  - (b) The Network Model
  - (c) The Relational Model
  - (d) All
- (2) In E-R diagram \_\_\_\_\_ is used to represent relationship between entities.
  - (a) Rectangle
  - (b) Circle
  - (c) Diamond
  - (d) Oval
- (3) SQL means
  - (a) System Query Language
  - (b) Structured Query Language
  - (c) System Questioner Language
  - (d) None
- (4) \_\_\_\_\_ is not a Database Management System.
  - (a) SQL
  - (b) Oracle
  - (c) FoxPro
  - (d) Both (a) and (c)
- (5) Which of the following is not an SQL command type ?
  - (a) Transactional control commands
  - (b) Data Definition language
  - (c) Decision Control Language
  - (d) None
- (6) The category of Revoke command is
  - (a) DML
  - (b) TCL
  - (c) DDL
  - (d) DCL

- (7) The ORDER BY clause can only be used in \_\_\_\_\_ queries.
- (a) SELECT (b) INSERT  
(c) GROUP BY (d) All
- (8) \_\_\_\_\_ is a join with a join condition containing an equality operator (=)
- (a) Equijoins (b) Cartesian  
(c) Both (d) None
- (9) Which of the following are false about primary key ?
- (a) Contains null values (b) Contain duplicate values  
(c) Both (a) and (b) (d) None
- (10) \_\_\_\_\_ contain a pointer that keeps track of current row being accessed, which enables your program to process the rows at a time.
- (a) Pointer (b) Tracker  
(c) Cursor (d) Trigger
- (11) Which of the following are forms of SQL ?
- (a) Interactive (b) Embedded  
(c) Both (d) None
- (12) \_\_\_\_\_ command is used for removing a table and all its data from the database.
- (a) Create (b) Alter table  
(c) Drop table (d) None
- (13) Tables and indexes that are data of logical database structure that are stored physically in the form of \_\_\_\_\_.
- (a) Data files (b) Control files  
(c) Online Redo log files (d) All
- (14) Data dictionary kept in
- (a) Stack space (b) SYSTEM tablespace  
(c) Datafile (d) None
- (15) The \_\_\_\_\_ statement makes permanent any changes made to the database during the current transaction.
- (a) COMMIT (b) ROLLBACK  
(c) SAVEPOINT (d) Both (a) and (c)
- (16) Which type of index should be used on a fact table ?
- (a) A binary index (b) A bitmap index  
(c) A metadata index (d) A database schema index



- (17) The \_\_\_\_\_ records all changes made to data. ○
- (a) Redo log (b) Archive log  
(c) Data file (d) none
- (18) Which of the following object types below cannot be replicated ?
- (a) Data (b) Trigger  
(c) View (d) Sequence
- (19) The components of SGA are
- (a) Shared pool (b) Database buffers  
(c) Redo log buffer (d) All
- (20) Oracle creates an index for the \_\_\_\_\_ in the snapshot base table.
- (a) Primary key (b) Foreign key  
(c) Both (a) and (b) (d) None

2. (a) Attempt the following : (any 3)

6

- (1) What is the difference between varchar and varchar 2 ?
- (2) List aggregate function in Oracle. Where it is used ?
- (3) What is view ?
- (4) What is an integrity constraint ?
- (5) What is cluster ?
- (6) What is a shared pool ?

(b) Attempt the following : (any 3)

9

- (1) Differentiate SQL v/s. PLSQL.
- (2) Describe SELECT statement.
- (3) Explain GRANT and REVOKE in brief.
- (4) Explain procedure in Oracle.
- (5) Write a short note on SGA.
- (6) Write a code for trigger that check the stu\_name must be start with 'S'.

(c) Attempt the following : (any 2)

10

- (1) Explain Net8 with its features.
- (2) What is JOIN ? Explain its different types.
- (3) Discuss % TYPE AND %ROWTYPE with example.
- (4) Write a note on Backup facility available in Oracle.
- (5) Explain CURSOR in detail.



3. (a) Attempt the following : (any 3)

6

- (1) What is an Oracle Instance ?
- (2) What are Privileges and Grants ?
- (3) What is the difference between rename and alias ?
- (4) What is difference between SUBSTR and INSTR ?
- (5) List commands of DDL and DCL.
- (6) What is Package ?

(b) Attempt the following : (any 3)

9

- (1) What is an index ? Describe Bitmap indexes and B-tree indexes.
- (2) List out set operators. Explain any one with an example.
- (3) Explain the following functions :
  - (a) REPLACE
  - (b) SUM
  - (c) FLOOR
- (4) List out oracle background processes. Explain any one.
- (5) Explain Redo log file.
- (6) Write a code for function to display the reverse string of a given string.

(c) Attempt the following : (any 2)

10

- (1) Explain Data types available in Oracle.
- (2) Explain LIKE and BETWEEN with example.
- (3) Explain PL/SQL block structure in detail.
- (4) What is tablespaces ? Describes briefly.
- (5) Consider the following table :

Employee (EId, Ename, Designation, Salary, Deptno)

Write following queries for the above table :

- (a) Find out all details of employees whose name is start with "A".
- (b) List the name and salary of employees who salary is in the range of 3000-5000.
- (c) Find name of clerk from deptno 1.
- (d) Calculate total monthly salary for all employees.
- (e) Find designation whose salary is maximum.