

**Time : 3 Hours!**

**[Max. Marks : 70]**

1. (A) Answer the following : (any two) 6
- (1) Difference between DDL and DML, give example in support of your answer.
  - (2) Explain IN and EXISTS operator giving example.
  - (3) Explain the significance of table level constraints with example.
  - (4) What is a virtual table ? State its purpose using syntax and example.
- (B) Answer the following : (any two) 8
- (1) Using examples, explain the functions : COUNT, MAX, SUM and AVG.
  - (2) What are Aliases ? How are they used in SQL queries ? Explain giving example.
  - (3) Explain the use of ORDERBY and GROUPBY with example.
  - (4) Explain how can you ADD and DROP column in SQL with example.
2. (A) Answer the following : (any two) 6
- (1) Write a note on characteristics and benefits of DSS.
  - (2) Explain advantages and disadvantages of Data Mining.
  - (3) Differentiate between Operational and Data Warehouse systems.
  - (4) Explain Decision Support Database requirements.
- (B) Answer the following : (any two) 8
- (1) Explain Data Mining with its phases.
  - (2) Explain Online Analytical Processing (OLAP).
  - (3) What is Data Warehouse ? Explain its characteristics.
  - (4) Explain the main components of business intelligence architecture.
3. (A) Answer the following : (any two) 6
- (1) Explain components of DDBMS.
  - (2) Explain Distributed concurrency control.
  - (3) What do you understand by Remote Transaction ?
  - (4) Explain Static and Dynamic Query Optimization.

(B) Answer the following : (any two)

- (1) Write a note on Distribution transparency.
- (2) Differentiate between Multiple-site processing, Multiple-site Data (MPMD) and Multiple-site processing, Single-site Data (MPSD).
- (3) Explain Distributed database and Distributed process in detail.
- (4) Explain two-phase Commit Protocol.

4. (A) Answer the following : (any two)

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- (1) What is Cross Join ? Give example of its syntax.
- (2) Explain TO\_DATE, CEIL and SUBSTRING functions in ORACLE.
- (3) Write a note on JOIN ON and JOIN USING clause using example.
- (4) Explain using example the difference between UNION and UNION ALL.

(B) Answer the following : (any two)

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- (1) Explain INTERSECT AND MINUS relational set operators.
- (2) Differentiate between subquery and correlated subquery giving an example.
- (3) What three join types are included in OUTER JOIN ?
- (4) Write a note on ORACLE SEQUENCE.

5. Answer the following :

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- (1) The \_\_\_\_\_ SQL keyword is used delete the data in a table.
- (2) To remove duplicate rows from the result of a query specify the SQL qualifier \_\_\_\_\_.
- (3) Like Operator uses \_\_\_\_\_ and \_\_\_\_\_ symbols for pattern matching.
- (4) \_\_\_\_\_ is the keyword to restore the data to their pre-change condition.
- (5) SPSPD stand for \_\_\_\_\_.
- (6) \_\_\_\_\_ is a framework that allows business to transform data into information, knowledge and wisdom.
- (7) In the \_\_\_\_\_ phase data mining findings are used to predict future behaviour of a business.
- (8) \_\_\_\_\_ allows the integration of several different local DBMSs under a common, or global, schema.
- (9) Query optimization algorithms are classified as \_\_\_\_\_ and \_\_\_\_\_.
- (10) \_\_\_\_\_ is a small, single-subject data warehouse subset that provides decision support to small group of people.
- (11) \_\_\_\_\_ Function returns today's date.
- (12) Cross Join is also known as \_\_\_\_\_.
- (13) SELECT substr('SYBCASEM4',3,3) from DUAL; gives \_\_\_\_\_ output.
- (14) \_\_\_\_\_ Function returns a character string or a formatted string from a date value.