



**KERALA STATE RUTRONIX**  
**System Engineering, RDBMS & SQL**  
(PGDCA)

Question code

**E5**

**Time: 2 hours**

**Maximum Marks: 100**

**Note: Write the answers for Questions from 1 to 30 in the MCQ answer sheet**

**Part - I Choose the most appropriate answer**

**(10 x 1 Mark = 10 Marks)**

- 1) Which SQL keyword is used to sort the result-set?  
a) ORDER                      b) SORT                      c) ORDER BY                      d) SORT BY
- 2) With SQL, how do you select all the columns from a table named "Persons"?  
a) SELECT Persons                      b) SELECT \*.Persons  
c) SELECT [all] FROM Persons                      d) SELECT \* FROM Persons
- 3) Which SQL statement is used to insert new data in a database?  
a) INSERT NEW                      b) ADD RECORD                      c) ADD NEW                      d) INSERT INTO
- 4) Which SQL statement is used to extract data from a database?  
a) OPEN                      b) SELECT                      c) GET                      d) EXTRACT
- 5) Which of the following testing certifies that the system is free of errors and is ready to be placed into operation?  
a) Alpha testing                      b) Audit testing                      c) Stress testing                      d) None of these
- 6) ..... is used to refer to a point where the cost of candidate system and that of the existing system are equal.  
a) Breakeven point                      b) Pay back point                      c) Net benefit point                      d) Present value point
- 7) Cost that are known to exist but whose financial value cannot be measured accurately are called  
a) Intangible cost                      b) Tangible cost                      c) Cost of operation                      d) None of these
- 8) Duplication of data in a database is called .....  
a) Data integrity                      b) Data packets                      c) Data redundancy                      d) Data isolation
- 9) E-R Modeling technique is a ..... approach.  
a) top-down                      b) bottom-up                      c) right-left                      d) None of these
- 10) Horizontal bar chart sometimes called a ..... chart.  
a) Column chart                      b) Pie chart                      c) Gantt Chart                      d) None of these

**Part - II Fill in the blanks**

**(10 x 1 Mark = 10 Marks)**

- 11) The ..... SQL operator is used to search for a specified pattern in a column.
- 12) The ..... SQL operator allows you to specify multiple values in a WHERE clause.
- 13) ..... is a formal document that summarizes findings and recommendations on the proposed system.
- 14) Top level management takes ..... decisions
- 15) ..... keyword to eliminate duplicate rows from the SQL query.
- 16) The view of total database content is ..... view.
- 17) In an E-R diagram attributes are represented by .....

- 18) ..... is the system in which occurrences of all events is perfectly predictable.
- 19) ..... decision follow a set of organization formulated rules and regulations.
- 20) The SQL command should be terminated with .....

**Part - III State whether True or False**

**(10 x 1 Mark = 10 Marks)**

- 21) All Candidate Keys excluding the Primary Key are known as Alternate Keys.
- 22) SQL cannot delete records from a database.
- 23) The **Count** operator selects values within a range.
- 24) Primary keys must contain unique values.
- 25) The DEL statement is used to delete rows in a table.
- 26) Control Flow Diagram is also called bubble chart.
- 27) Each individual view of a database is called a subschema.
- 28) The DELETE INDEX statement is used to delete an index in a table.
- 29) JOIN command is used to merge data from multiple files.
- 30) In E-R Diagram total participation is represented by single line.

**Part - IV Give Expansion of the following**

**(10 x 1 Mark = 10 Marks)**

- 31) SQL
- 32) RDBMS
- 33) ANSI
- 34) HTML
- 35) CSS
- 36) DML
- 37) DDL
- 38) MIS
- 39) SDLC
- 40) GIF

**Part - V Answer the following (Any Six)**

**(6 x 5 Marks = 30 Marks)**

- 41) Explain different types of SQL joins.
- 42) Explain SQL Queries.
- 43) What is aggregate function? Explain any five built-in aggregate functions in SQL.
- 44) Explain E-R modeling symbols.
- 45) Explain Normalization.
- 46) Explain Instances and Schema.
- 47) Cost Benefit Evaluation methods.
- 48) Explain File Access Modes.
- 49) Explain System Design Objectives.

**Part - VI Essay Question (Any Three)**

**(3 x 10 Marks = 30 Marks)**

- 50) Explain System Testing.
- 51) Name three ways of Changeover in System Engineering.

52) Explain Backup and Recovery in DBMS.

53) Read the table and answer the following questions

ProductID	ProductName	Price	Tax
20012	Ginger	705	10%
20013	Garlic	256	6%
20014	Potato	285	9%
20015	Onion	250	6%

- a. The structure and a few rows of a data table are shown above.
- b. Write SQL Queries to
  - a) add a new record (assume suitable values)
  - b) delete the record with ProductID=20014
  - c) list all products having a tax of 6%
  - d) revise the price of product having ProductID 20013 to 300
  - e) count the number of products having tax 6%
  - f) change the product name in the second record to 'Green Chilly'.
  - g) list product names in ascending order.
  - h) change all ProductName to UPPER CASE.
  - i) add one more column named **ID** as Primary Key and make it Auto-increment.
  - j) change the table name to 'Hypermarket'.