

THIRD SEMESTER B.VOC. DEGREE EXAMINATION, NOVEMBER 2017**Software Development****SDC 3IT 10—INTRODUCTION TO RDBMS AND SQL**

Time : Three Hours

Maximum : 80 Marks

Section A

*Answer all questions.
Each question carries 1 mark.*

1. The language used in application programs to request data from the DBMS is referred to as the :
 - (a) DML.
 - (b) DDL.
 - (c) VDL.
 - (d) SDL.
2. Data independence means :
 - (a) Data is defined separately and not included in programs.
 - (b) Programs are not dependent on the physical attributes of the data.
 - (c) Programs are not dependent on the logical attributes of data.
 - (d) Both (b) and (c).
3. A data manipulation command that combines the records from one or more tables is called :
 - (a) SELECT.
 - (b) PROJECT.
 - (c) JOIN.
 - (d) PRODUCT.
4. Fifth normal form is concerned with :
 - (a) Functional dependency.
 - (b) Multivalued dependency.
 - (c) Join dependency.
 - (d) Domain-key.
5. The HAVING clause does which of the following ?
 - (a) Acts like a WHERE clause but is used for groups rather than rows.
 - (b) Acts like a WHERE clause but is used for groups rather than columns.
 - (c) Acts like a WHERE clause but is used for columns rather than groups.
 - (d) Acts EXACTLY like WHERE clause.
6. When SQL statements are embedded inside 3GL, we call such a program as ?
 - (a) Nested query.
 - (b) Nested programming.
 - (c) Distinct query.
 - (d) Embedded SQL.

Turn over

7. Which command is used to display the structure of a table?
- (a) LIST. (b) SHOW.
(c) DESCRIBE. (d) STRUCTURE.
8. A functional dependency of the form $x \rightarrow y$ is trivial if :
- (a) $y \subseteq x$. (b) $y \subset x$.
(c) $x \subseteq y$. (d) $x \subset y$.
9. How many types of DML triggers are present in SQL server ?
10. ——— is the key used for referential integrity.

(10 × 1 = 10 marks)

Section B

*Answer any **eight** questions.
Each question carries 2 marks.*

11. What is meant by data abstraction ?
12. What is meant by degree of relationship set ?
13. Define two levels of data independence.
14. What is first normal form ?
15. What is functional dependency ?
16. Define relational algebra.
17. Define the syntax of ALTER table command.
18. What is the difference between 3NF and BCNF ?
19. Write the syntax of renaming the column of a view.
20. What is the use of group by clause ?
21. Define two-phase locking protocol.
22. What are the two parts of a procedure ?

(8 × 2 = 16 marks)

Section C

*Answer any **six** questions.*

Each question carries 4 marks.

23. What are the three keys applicable to an entity set ? Define.
24. Explain about Database languages and its users.
25. Write a note on Division and Join operations.
26. Explain three different groups of data models with examples.
27. Define SQL insert statement, Delete statement and Update statement.
28. What is the syntax of GRANT and REVOKE ? Explain with example.
29. What are the conditions satisfied to update the view ? How can you drop the view ?
30. Create procedure to find the sum of natural numbers.
31. What are cursors ? How can you use cursors in a program ? Demonstrate with an example.

(6 × 4 = 24 marks)

Section D

*Answer any **two** questions.*

Each question carries 15 marks.

32. Explain the architecture of DBMS in detail.
33. How can you create, modify, delete and view the structure of the table ? Demonstrate each with example.
34. Explain different logical operators and set operators in SQL. How can you search the pattern and range in data base.
35. Describe different control structures in procedures with example.

(2 × 15 = 30 marks)