

SECOND SEMESTER B.Sc. DEGREE EXAMINATION, MAY 2018

(CUCBCSS-UG)

MBY 2C 07—C LANGUAGE, DATABASE MANAGEMENT SYSTEM AND SQL

Time : Three Hours

Maximum : 64 Marks

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

1. The loop in which the statements within the loop are executed at least once is called :
(a) do-while. (b) while.
(c) for. (d) goto.
2. Which of the following is not a correct variable type ?
(a) float. (b) real.
(c) int. (d) double.
3. Which one of the following is a valid identifier ?
(a) _ident. (b) auto.
(c) bignumber. (d) g42277.
4. The statement that transfers control to the beginning of the loop is called _____.
5. The database is a collection of _____.
(a) Records. (b) Tables.
(c) Files. (d) Queries.
6. The database schema is expressed using _____.
(a) DDI. (b) HLL.
(c) DML. (d) DCL.
7. The person responsible for identifying the data to be stored and for selecting appropriate structures to represent and store this data in the database is _____.
(a) DBA. (b) Database designers.
(c) System analyst. (d) Sophisticated end users.
8. In SQL, the COUNT command is used for _____.
9. Entity types that do not have key attribute of their own are called _____.

(9 × 1 = 9 marks)

Turn over

Section B*Answer all questions.**Each question carries 2 marks.*

10. Define algorithm and flowchart.
11. Write the precedence and order of evaluation of operators.
12. What are the various ways to assign values to members of structure declared in C ?
13. Write the syntax of SELECT command in SQL.
14. Define set union operation in relational algebra.

(5 × 2 = 10 marks)**Section C***Answer any five questions.**Each question carries 5 marks.*

15. Write a program in C to find whether a year is leap year or not.
16. Explain bit-wise operators with examples.
17. Write a program to display the odd numbers from 1 to 100 using while loop.
18. Explain about different string manipulation functions available in C.
19. Explain about the advantages of using a DBMS.
20. What are the responsibilities of DBA and database designers ?
21. List various aggregate functions in SQL.
22. Create a STUDENT table and write SQL statements for the following queries :
 - (a) List all student names having age > 18.
 - (b) Display the details of students whose average mark in all subjects >=60 %.
 - (c) Display the name and address of students studying in either Computer Science or Mathematics department.

(5 × 5 = 25 marks)**Section D***Answer any two questions.**Each question carries 10 marks.*

23. Explain the different looping structures available in C with examples.
24. Explain about various data models used to describe the design of a database.
25. Write short notes on :
 - (a) Break and continue statements available in C.
 - (b) Importance of auto and static variables in C.
 - (c) Relational algebra and relational calculus.
 - (d) Normalization in DBMS and various normal forms.

(2 × 10 = 20 marks)