C 15770

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Name

Reg. No. · · · · · · · · · · · · · · · · ·

SECOND SEMESTER B.Sc. DEGREE EXAMINATION, MAY 2011

(CCSS)

Microbiology

MB2 C07—LANGUAGE, DATABASE MANAGEMENT SYSTEM AND SQL

(For Biostatistics and Computer Application)

Maximum : 30 Weightage

Time : Three Hours

Section A

Answer **all** *questions.*

1. The keyword void is a

2. Consider the statement :

$$z = (x = 5, y = x + 3);$$

   (a) This is an invalid c statement.

   (b) It will assign 5 to x, 8 to y and 13 to z.

   (c) It will assign 5 to x, 8 to y and 0 to z.

   (d) It will assign 5 to x, 8 to y and 8 to z.

3. A   statement can always be replaced by a series of if .... *else* statements.

4. The return type of a function, is   by default.

5. The variables declared in a structure definition are called its

6. A   can be added to a pointer.

   (a) An integer.

   (b) a pointer.

   (c) Both (a) and (b).

   (d) None of the above.

7. The keyword   is to define a data type.

8. A data dictionary contains

9. An "entity" is a

Turn over

10. Given the relation stud :

No.	Name	Age
202	Ritu	23
204	Gomez	24
208	Binu	25
210	Shijo	22

What would be the output of $\sigma_{age > 24}$ (Stud)..

11. _____ are functions that take a collection of values as input and return a single value.

12. A relation schema **R** is in _____ if the domain of all attributes of R are atomic.

(12 x _ = 3 weightage)

Section B

*Answer **all** questions.*

13. Define algorithm.

14. List and explain logical operators in C.

15. Give the syntax of while and do-while statements.

16. What is a recursive function ?

17. What is a pointer ?

18. Define "relational model".

19. Define BCNF.

20. Define the relational algebra operation "Difference".

21. What is an embedded SQL ?

(9 x 1 = 9 weightage)

Section C

*Answer any **five** questions.*

22. Write a program to evaluate first n terms of the series :

$$i + 2^2 + 3^3 + ...$$

23. Write a program / function to sort an array of integers.

24. Write functions to (a) reverse a string, (b) concatenate two strings.

25. Write note on "structures".

26. Write note on "data abstraction".

27. With suitable example, explain second and third normal forms.

28. With suitable example, explain basic structure of SQL.

(5 x 2 = 10 weightage)

Section D

Answer any **two** *questions.*

29. Write a function to add two matrices. Use pointers to access the 2D array elements.

30. (a) What is a view ? What are the advantages of view ? Explain how a view can be created ?

    (b) Explain Weak entity sets.

31. Explain the following : —

    (a) Mapping constraints.

    (b) Keys.

    (c) Nested sub queries.

    (d) Derived relations.

(2 x 4 = 8 weightage)