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**Reg. No. :** .....

**Code No. : 30593 E      Sub. Code : SEMA 6 F**

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2020.

Sixth Semester

Mathematics

Major Elective IV – PROGRAMMING IN C

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — ( $10 \times 1 = 10$  marks)

Answer ALL questions.

Choose the correct answer :

1. C Programs are converted into machine language with the help of
  - (a) An Editor
  - (b) A Compiler
  - (c) An Operating System
  - (d) None of the above

2. Every program statement must terminated with
  - (a) Colon
  - (b) Semicolon
  - (c) Underscore
  - (d) Comma
3. Which operator from the following has the lowest priority?
  - (a) assignment
  - (b) division
  - (c) comma
  - (d) conditional
4. Relational operators cannot be used on \_\_\_\_\_.
  - (a) Structure
  - (b) Long
  - (c) String
  - (d) Float
5. Which of the following cannot be checked in a switch case statement?
  - (a) character
  - (b) integer
  - (c) float
  - (d) enum
6. \_\_\_\_\_ statement is used to exit the switch statement.
  - (a) If
  - (b) Break
  - (c) Else
  - (d) Nested

7. Set of consecutive memory locations is called as  
(a) loop (b) array  
(c) pointer (d) function
8. The maximum number of dimension an array can have in C is \_\_\_\_\_.  
(a) 3 (b) 4  
(c) 5 (d) Compiler dependent
9. A function which calls itself is called a \_\_\_\_\_ function.  
(a) self (b) auto  
(c) recursive (d) static
10. How many functions are required to create recursive functionality?  
(a) one (b) two  
(c) more than two (d) none of the above

PART B — ( $5 \times 5 = 25$  marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Explain in detail about constants with example.

Or

- (b) Describe about C character set with example.

12. (a) Write a brief account on special operators.

Or

- (b) Write a C program to calculate factorial of a given number.

13. (a) Explain in detail about switch statement with example.

Or

- (b) Write a brief note on formatted input with example.

14. (a) Write a C program to print the numbers in ascending order.

Or

- (b) Describe in detail about string handling functions with example.

15. (a) Define function. Discuss about functions with example.

Or

- (b) Write a brief note on Recursion.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Describe in detail about data types with example.

Or

- (b) Write a brief account on assigning values to variables with example.

17. (a) Elaborate note on operators and its types with example.

Or

- (b) Explain about precedence of arithmetic operators with example.

18. (a) Detail account on if statement and its types with example.

Or

- (b) Discuss about looping statements with example.

19. (a) Illustrate about two dimensional arrays with example.

Or

- (b) Describe in detail about reading strings from terminal.

20. (a) Explain in detail about category of functions with example.

Or

- (b) Write a brief account on scope, visibility and lifetime of variables.
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