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Reg. No. :

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

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

Sixth Semester

Mathematics — Major Elective

PROGRAMMING IN C

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. In C, the first character of the variable should be
 - (a) an integer
 - (b) an alphabet
 - (c) a symbol
 - (d) All the above
2. Which of the following statement is wrong?
 - (a) $5+5=a;$
 - (b) $SS=12.25;$
 - (c) $st= 'm'+ 'b';$
 - (d) $is = 'A' +10;$

3. What is the value of !0?
- (a) 1 (b) 0
- (c) -1 (d) 10
4. Hierarchy decides which operator
- (a) is the most important
- (b) operator on large numbers
- (c) cannot be executed
- (d) is used first
5. What function is appropriate for accepting a string?
- (a) getch () (b) getche ()
- (c) gets () (d) scanf ()
6. The loop for (a=1; a<=5; a++) will be executed for _____ times.
- (a) 4 (b) 6
- (c) 5 (d) Infinite loop

7. `int x[5];` this array can hold values in between _____ to _____
- (a) -32768 to 32767
 - (b) 0 to 255
 - (c) -65564 to 65563
 - (d) -65564 to 65564
8. _____ copies one string to another
- (a) `strstr ()`
 - (b) `strcpy ()`
 - (c) `strcat ()`
 - (d) `strcmp ()`
9. Following one keyword is used for function not returning any value
- (a) `void`
 - (b) `int`
 - (c) `auto`
 - (d) None of the above
10. By default, function returns _____ value
- (a) binary
 - (b) integer
 - (c) float
 - (d) string

PART B — ($5 \times 5 = 25$ marks)

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

11. (a) Explain C keywords and identifiers.

Or

- (b) How do you define symbolic constants? Explain.

12. (a) Explain arithmetic operators.

Or

- (b) Discuss the bitwise operators.

13. (a) Explain If ELSE statement.

Or

- (b) Write a program to find the sum of numbers upto 'n' term.

14. (a) Write a note on multi dimensional arrays.

Or

- (b) Write a program to count the vowels present in a word

15. (a) Discuss the need for user defined functions.

Or

- (b) Write a program to find factorial of a number using recursion.

PART C — ($5 \times 8 = 40$ marks)

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

16. (a) Discuss on declaration of storage classes.

Or

- (b) Explain about declaring variables and constants.

17. (a) Describe the assignment, increment and decrement operators.

Or

- (b) Explain the evaluation of expressions.

18. (a) Write a program to find the sum of prime numbers below 100.

Or

- (b) Explain

- (i) WHILE statement
- (ii) Do statement

19. (a) Describe the string handling function.

Or

(b) Write a program to sum the odd numbers present in an array.

20. (a) Discuss the scope, visibility and lifetime of a variable.

Or

(b) Write a program to convert decimal number to binary number using the function.
