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Reg. No. :

**Code No. : 20597 E Sub. Code : SMCS 11/
SMSE 11/AMCS 11/
AMSE 11**

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2021.

First Semester

Computer Science/Software Engineering — Core

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. _____ are user defined word used to name of entities like variables, arrays, functions, structures etc.,
 - (a) Character Set
 - (b) Identifiers
 - (c) Constants
 - (d) Storage Class

2. What is the size of char datatype?
- (a) 8 Byte (b) 4 Byte
(c) 2 Byte (d) 1 Byte
3. When a loop written inside the body of another loop then, it is known as
- (a) if (b) if-else
(c) switch (d) nesting of loop
4. _____ statement is encountered loop is terminated and control is transferred to the statement, immediately after loop.
- (a) for (b) continue
(c) break (d) do
5. _____ is the collection of similar data types or collection of similar entity stored in contiguous memory location.
- (a) Struct (b) Union
(c) Array (d) Pointer

6. Array of character is a
- (a) string (b) float
(c) double (d) enum
7. Function declaration is also known as function _____.
- (a) model (b) view
(c) argument (d) prototype
8. Which of the following are themselves a collection of different data types?
- (a) String (b) Struct
(c) Char (d) Integer
9. In pointer _____ is a indirection operator or dereference operator.
- (a) > (b) ::
(c) & (d) *
10. _____ function is used to write a character into a file.
- (a) puts() (b) putc ()
(c) getc() (d) gets()

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) List out the rules for naming the identifiers.

Or

- (b) Explain the Relational and Conditional Operators.

12. (a) Discuss the working of Switch statement with an example.

Or

- (b) Write note on if-else statement with suitable statement.

13. (a) How to declare and initialize a one dimension array? Explain with an example.

Or

- (b) Write a C program to count total number of elements divisible by a specific number in a one dimensional array.

14. (a) What is the need for User-defined functions?

Or

- (b) Write a user defined function to calculate area of the square and area of triangle using no arguments and no return value.

15. (a) Mention the underlying concepts of Pointers.

Or

- (b) Write a program to print the address of a variable along with its value.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Write note on Arithmetic operators, Increment and Decrement Operators.

Or

- (b) Write a program to read three values using scanf function and print the following results :

- (i) Largest of the three
- (ii) Average of the three values.

17. (a) Discuss about Looping statements in C with an example.

Or

- (b) Write a program to sum of digits using while loop.

18. (a) Explain the String handling functions in C.

Or

(b) Write a C program to multiply two matrices.

19. (a) Describe the different categories of user defined functions.

Or

(b) Write a recursive function to calculate factorial value.

20. (a) Write a function using pointers to exchange the values stored in two locations in the memory.

Or

(b) Illustrate the file handling functions in C.
