

(6 pages)

Reg. No. :

Code No.: 10460 E Sub. Code: CMCS 11/
CMSE 11

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2023.

First Semester

Computer Science/ Software Engineering

PROGRAMMING IN C

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Which of the following denotes the smallest individual units of a C program?
(a) Expressions (b) Tokens
(c) Arrays (d) Structures
2. Which of the following is an unary operator?
(a) ++ (b) +
(c) && (d) ?:

3. Which of the following is equivalent to $!(x \& \& y \ || \ !z)$
(a) $!x \& \& !y \ || \ z$ (b) $!x \& \& y \ || \ !z$
(c) $!x \ || \ !y \& \& z$ (d) $!x \ || \ !y \ || \ z$
4. What does goto require in order to identify the place where the branch is to be made?
(a) expression (b) value
(c) variable (d) label
5. Which of the following is a fixed size sequenced collection of elements of the same datatype?
(a) union (b) structure
(c) array (d) pointer
6. Which of the following terminates its input on the first white space it finds?
(a) `scanf("%s", s);` (b) `scanf("%[^\n]", s);`
(c) `gets(s);` (d) `getch(s);`
7. Which of the following is not part of function declaration?
(a) function name
(b) function type
(c) return statement
(d) terminating semicolon



8. Which of the following is the region of a program in which a variable is available?

- (a) Scope (b) visibility
(c) lifetime (d) memory

9. Which of the following function sets the position to the beginning of the file?

- (a) moveptr (b) ftell
(c) rewind (d) setptr

10. What is the value of *P++ in the following code?

```
int x=10, *p;
```

```
p = &x;
```

- (a) 10 (b) 11
(c) *P++ (d) address of x+1

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 250 words.

11. (a) What are the different storage classes available in C?

Or

(b) Write notes on getchar() and putchar().

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12. (a) Briefly explain if-else statement with an example.

Or

(b) Compare While and Do statement.

13. (a) How is one-dimensional array declared and initialized?

Or

(b) How are strings declared and initialized?

14. (a) What are the different categories of functions?

Or

(b) Compare structure and union.

15. (a) Write a C program to interchange two numbers using pointers.

Or

(b) Write a note on input/output operations in files.

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PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)
Each answer should not exceed 600 words.

16. (a) What are the different operators available in C? Give their precedence.

Or

- (b) Briefly explain formatted input statement.

17. (a) Explain switch statement with an example.

Or

- (b) Explain FOR statement with an example.

18. (a) Write a C program to sort the given numbers in ascending order.

Or

- (b) Explain any four string handling functions.

19. (a) What is recursion? Explain with an example.

Or

- (b) Explain the scope, visibility and lifetime of a variable.

20. (a) Briefly explain how pointer variables are declared, accessed and used in expressions?

Or

- (b) Explain Error handling during I/O operations.

