

Reg. No. : .....

**6550**                    **Q.P. Code : [11 SC 01/11 CA 01/  
11 IT 01/11 CTG 01/  
11 SS 01/11 MM 01/  
19 HSN 01/20 BSA 01]**

(For the candidates admitted from 2011 onwards)

B.Sc./B.C.A. DEGREE EXAMINATION, APRIL 2021.

First Semester

Part III – Computer Science/Computer  
Applications/Information Technology/Computer  
Technology/Software Systems/Multimedia and  
Web Technology/ Hardware Systems and  
Networking

COMPUTING FUNDAMENTALS AND C  
PROGRAMMING

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Fifth generation computers are based on \_\_\_\_\_
  - (a) Artificial Intelligence
  - (b) Programming Intelligence
  - (c) System Knowledge
  - (d) VVLSI

2. Which one of the following is not an input device?
- (a) Keyboard                      (b) Joystick  
(c) MICR                            (d) Projector
3. All keywords in C are in \_\_\_\_\_
- (a) Lowercase                      (b) Uppercase  
(c) Sentence Case                (d) Toggle Case
4. Which data type is most suitable for storing a number 65000 in a 32-bit system?
- (a) signed short  
(b) unsigned short  
(c) long  
(d) int
5. \_\_\_\_\_ is an invalid if-else statement.
- (a) `if (if (a == 1)){}`   
(b) `if (func 1 (a)){}`   
(c) `if (a){}`  
(d) `if ((char) a){}`
6. The C code 'for (; ; )' represents an infinite loop. It can be terminated by
- (a) `break`                            (b) `exit(0)`  
(c) `abort()`                            (d) `terminate`

7. \_\_\_\_\_ is a correct format for declaration of function.
- (a) return-type function-name(argument type);
  - (b) return-type function-name(argument type){ }
  - (c) return-type (argument type)function-name;
  - (d) all of the mentioned
8. The value obtained in the function is given back to main by using \_\_\_\_\_ keyword.
- (a) new                      (b) static
  - (c) volatile                (d) return
9. How many number of pointer (\*) does C have against a pointer variable declaration?
- (a) 7                         (b) 127
  - (c) No limits               (d) 255
10. Which of the following declaration will result in run-time error?
- (a) int \*\*c = &c;
  - (b) int \*\*c = &\*c;
  - (c) int \*\*c = \*\*d;
  - (d) None of the above

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Explain about the generations of computers.  
Or  
(b) Write a note on any two output devices.
12. (a) How do you declare a variable in C? Explain.  
Or  
(b) Summarize about the logical operators in C.
13. (a) With an example, discuss about if-else statement in C.  
Or  
(b) How do you make a while loop in C? Explain.
14. (a) Write a C function to return factorial of a number passed as an argument.  
Or  
(b) What is recursion? What data structure is used in recursive calls?
15. (a) Discuss how to access the address of a variable.  
Or  
(b) Write short notes on array of pointers.

SECTION C — (5 × 8 = 40 marks)

Answer ALL questions.

16. (a) Discuss about the basic anatomy of a computer system with suitable illustration.

Or

- (b) Elaborate about the various types of software.

17. (a) Describe the various data types in C with an example for each.

Or

- (b) Explain about operator precedence and associativity in C.

18. (a) Illustrate the switch statement in C with appropriate example.

Or

- (b) What is an array in C? Explain about two dimensional array with an example.

19. (a) Write a C program to reverse a string.

Or

- (b) Compare and contrast, structures with unions.

20. (a) How do you access a variable through its pointer? Explain.

Or

(b) Write a detailed note on file management in C.

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