MATH/VI/CC/12c

Student's Copy

2022

(CBCS)

(6th Semester)

MATHEMATICS

TWELFTH (C) PAPER

(Computer Programming in C)

(Theory)

Full Marks: 75

Time: 3 hours

The figures in the margin indicate full marks for the questions

(SECTION: A-OBJECTIVE)

(Marks: 10)

Tick (\checkmark) the correct answer in the brackets provided : $1 \times 10 = 10$

1. The number of keywords available in C is

(a) 30 *(b)* 31 () () (d) 33 () *(c)* 32 () **2.** The value of 9 ((8%2) 4%2) 1 is (a) -1 (b) –2) (() (d) 2 ((c) 1 ()) **3.** What will be the output of the code b = ++c + ++c; if c is 10 initially?

(a)	0	()	(k	<i>b)</i>	25	()
(C)	26	()	(0	1)	27	()

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[Contd.

4.	In an exit controlled loop, if body is executed n times, test condition is evaluated times.							
	(a) n (b) n 1 (c)							
	(c) $n \ 1$ () (d) n^2 ()							
5.	Array is a collection of							
	(a) identical data objects ()							
	(b) different data objects ()							
	(c) Both (a) and (b) ()							
	(d) All of the above ()							
6.	int testarray [3][2][2] = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12};							
	The value of testarray [2][1][0] in the sample code is							
	(a) 9 () (b) 10 ()							
	(c) 11 () (d) 12 ()							
7.	If the two strings are identical, then strcmp() function returns							
	(a) -1 () (b) 1 ()							
	(c) 0 () (d) 2 ()							
8.	What is the similarity among structure, union and enumeration?							
	(a) All of them let you define new data types ()							
	(b) All of them let you define new values ()							
	(c) All of them let you define new pointers ()							
	(d) All of them let you define new structures ()							
9.	Which of the following is used to move the file position to the beginning of a							
	file?							
	$\begin{array}{c} (a) \text{itell} () \\ (b) \text{free1} () \end{array}$							
	$\begin{array}{c} (b) \text{iseek} (b) \\ (c) \text{rewind} (c) \\ \end{array}$							
10	(a) goto () File monimulation functions in C and available in which of the following							
10.	header files?							

(a)	streams.h()		()	(b)	stdlib.h()	()
(C)	stdio.h()	()		(d)	files.h()	()

(SECTION : B—SHORT ANSWER)

(Marks: 15)

Answer the following questions :

3×5=15

UNIT—I

1. What do you understand by constant?

OR

2. What do you understand by identifiers?

Unit—II

3. What is conditional operator? **OR**

4. What is function prototype?

UNIT—III

- What are the advantages and disadvantages of pointers?
 OR
- 6. Explain strncpy().

UNIT—IV

7. How does structure differ from union?OR

8. Explain self-referential structures.

UNIT-V

9. Explain (i) rewind() and (ii) rename().

OR

10. What are the various operations on files?

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[Contd.

(SECTION : C-DESCRIPTIVE)

(*Marks* : 50)

Answer the following questions :

10×5=50

Unit—I

1. What do you understand by C? Explain the structure of C programming with a neat diagram.

OR

2. Differentiate between operators and operands. Discuss the commonly used operators in C programming.

Unit—II

3. Write a simple program to differentiate 'if' and 'if-else' statements. Mention the relationship between 'switch' statement and 'break' statement with example. 5+5=10

OR

4. Explain call by value and call by reference by giving suitable examples.

UNIT—III

5. State four storage classes in C. Explain all of them in brief.

OR

6. How do two-dimensional arrays allocate in the memory? Explain with suitable example.

UNIT-IV

7. What is an array of pointer? Write a program to illustrate array of pointer and explain.

OR

8. What is structure within structure? Write C program to demonstrate structure within structure and explain in brief.

UNIT—V

9. Explain the different categories of functions with appropriate example.

OR

10. Explain the functions fprintf() and fscanf(), and write complete example of file management.

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