A **Reg. No. :** | | | | | | | | | | |

Question Paper Code: 51207

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

First Semester

Computer Science Engineering

15UCS107 - COMPUTER PROGRAMMING

(Regulation 2015)

Duration: Three hours Maximum: 100 Marks

Answer All Questions

PART A - (10x 1 = 10 Marks)

1. Algorithm and Flow chart help us to_____ CO1- R

   (a) Know the memory capacity (c) Direct the output to a printer

   (b) Identify the base of a number system (d) Specify the problem completely and clearly

2. Which of the following is not an advantage of a flowchart? CO1- R

   (a) Better Communication (c) Systematic testing

   (b) Efficient Coding (d) Improper documentation

3. Which of the following special symbol allowed in a variable name? CO2- R

   (a) * (asterisk) (c) - (hyphen)

   (b) | (pipeline) (d) _ (underscore)

4. Out of fgets() and gets() which function is safe to use? CO2- R

   (a) gets() (b) fgets() (c) both (a) and (b) (d) None

5. What will be the data type of the expression (a < 50) ? var1 : var2; provided a = int, var1 = double, var2 = float CO3- R

   (a) int (b) float (c) double (d) char

6. The keyword ‘break’ cannot be simply used within: CO3- R

   (a) do-while (b) if-else (c) switch-case (d) for

7. If the two strings are identical, then strcmp() function returns CO4- R

(a) -1 (b) 1 (c) 0 (d) Yes

8. In C, static storage class cannot be used with: CO4- R

(a) Global variable (b) Function parameter

(c) Function name (d) Local variable

9. If a1 = &x and a2 = &a1, what will be the output generated by the expression **a2? CO5- R

(a) Address of a2 (b) Address of a1

(c) Value of x (d) Address of x

10. Which of the following are themselves a collection of different data types? CO5- R

(a) String (b) Structures

(c) Char (d) Array

PART – B (5 x 2= 10Marks)

11. What are the languages used in computer generations. CO1- U

12. List out some of the rules used for 'C' programming. CO2- U

13. What is the difference between if and while statement? CO3- U

14. Define Strings with example. CO4- U

15. What is NULL pointer? CO5- U

PART – C (5 x 16= 80Marks)

16. (a) Explain pseudo code with an example and briefly discuss the different pseudo code structures. Differentiate algorithm and flowchart. CO1-U (16)

Or

(b) (i) Mention the various guidelines to be followed while drawing a flowchart with a suitable example. CO1 -U (8)

(ii) Draw the flowchart to find the greatest among three numbers. CO1 -App (8)

17. (a) Explain in detail about Operators in C with suitable example CO2 -U (16)

Or

(b) Describe about managing Input and Output operations with an example. CO2 -U (16)

18.	(a)	The Fibonacci sequence is a set of numbers that starts with a one or a zero, followed by a one, and proceeds based on the rule that each number is equal to the sum of the preceding two numbers. First few numbers of series are 0, 1, 1, 2, 3, 5, 8 etc., Create a C program to develop Fibonacci series	CO3- U	(16)
		Or		
	(b)	(i) With an example explain the Branching and Looping mechanism in C.	CO3- App	(8)
		(ii) Write a menu driven program which has following options: (i) Factorial of a number (ii) Prime or not (iii) Odd or even (iv) Exit.	CO3- App	(8)
19.	(a)	Interpret about call by value and call by reference with suitable example	CO4-App	(16)
		Or		
	(b)	(i) Write a C program to read n numbers in an array and split the array into two arrays even and odd such that the array even contains all the even numbers and other is odd. So the output will be as follows: Original array is 7,9,4,6,5,3,2,10,18 Odd array is 7,9,5,3 Even array is 4,6,2,10,18	CO4 -App	(8)
		(ii) Define functions. Write the advantages and disadvantages of function in C.	CO4 -U	(8)
20.	(a)	Paraphrase the concept of Dynamic memory allocation with its advantages and disadvantages	CO5- U	(16)
		Or		
	(b)	Describe pointers? When and why they are used? Explain in detailwith sample programs.	CO5- U	(16)