

Internal Assessment (Assignment)

Course Code: 23OMC103

Last Date of Submission: 04-Dec-2023

Course Title: Programming and Problem-Solving

Assignment Marks: 30

Assignment No.: 1

Note:

1. The assignment has two parts: **A** and **B**.
2. Part A has ten MCQs carrying one mark each. Answer **ALL** ten MCQs.
3. Part B has eight descriptive questions carrying four marks each. Attempt **any FIVE** questions out of eight.

Part A (10 × 1 = 10 Marks)

Answer **all** questions MCQ 1 to MCQ 10

MCQ No.	Question	Course Outcome
1	What is the output of the following program? <pre>int main() { int a=10,b=20,c=30; printf("%d %d %d"); return 0; }</pre>	CO-1
Answer Choices:	<input checked="" type="checkbox"/> a. Garbage Value <input type="checkbox"/> b. Compilation error <input type="checkbox"/> c. Run-time error <input type="checkbox"/> d. None of the options	
2	What is the output of the following program? <pre>#include<stdio.h> int main() { void *ptr; int num = 10; ptr = &num; printf("%d", ptr); return 0; }</pre>	CO-1
Answer Choices:	<input type="checkbox"/> a. 10 <input checked="" type="checkbox"/> b. Address Value <input type="checkbox"/> c. 0 <input type="checkbox"/> d. Compilation Error	
3	What is the output of the following program?	CO-1

	<pre>#include<stdio.h> int main(){ int num = - -20; printf("num = %d", num); return 0; }</pre>	
Answer Choices:	a. -20 b. 0 <input checked="" type="checkbox"/> c. 20 d. Compilation Error	
4	What will be the output of the C program? <pre>#include<stdio.h> int main() { float a = 5.0; printf ("Result is = %d ", (24 / 5) * a); return 0; }</pre>	CO-1
Answer Choices:	a. 20 b. 1 <input checked="" type="checkbox"/> c. 0 d. 25	
5	What will be the output of the C program? <pre>#include<stdio.h> int main() { 10; printf("%d", 10); }</pre>	CO-1
Answer Choices:	<input checked="" type="checkbox"/> a. 10 b. 20 c. Run-time error d. Compile-time error	
6	C Programming is a -----Programming style.	CO-1
Answer Keys:	a) Bottom-up <input checked="" type="checkbox"/> b) Top-down c) Object-oriented d) Application	
7	What will be the output of the following C Program? <pre>#include<stdio.h> int main() { printf("%d",3 * 2--); }</pre>	CO-2
Answer Keys:	a) 6 b) 3 <input checked="" type="checkbox"/> c) Compiler Error d) 9	
8	What will be the output of the following C Program?	CO-1

	<pre>#include<stdio.h> int main() { char *ptr = "helloworld"; printf(ptr + 4); return 0; }</pre>	
Answer Keys:	a) helloworld b) oworld c) Garbage Value d) world	
9	The fastest loop in C programming is -----.	CO-1
Answer Keys:	a) while b) do-while c) for d) All the options	
10	What will be the output of the following program? <pre>int main() { int a=25; while(a <= 27) { printf("%d ", a); a++; } return 0; }</pre>	CO-1
Answer Key	a) 27 27 27 b) 25 26 27 c) 25 25 26 d) 26 26 27	

Part B (5 × 4 = 20 Marks)

Attempt ANY FIVE questions from Q 1 to Q 8.

Q No.	Question	Course Outcome
1	Explain the preprocessor directives used in the C program.	CO-1
2	Illustrate for, while, and do-while loops with suitable examples.	CO-1
3	Illustrate the nested if-else statement with an example.	CO-1
4	Demonstrate a C program using call-by-value and call-by-reference methods.	CO-1
5	What is the need for user-defined functions? Explain with an example.	CO-1
6	Write a C program with functions to search for the largest number in an array. Print the position of the number.	CO-1
7	Determine the number of vowels in an array of characters using a C program	CO-1
8	Compare the following: <ol style="list-style-type: none"> Global and local variables Actual and Formal Parameters 	CO-1

Course Outcomes:

- CO-1.** Describe the fundamental concepts of computational thinking and problem-solving strategies. [L-1]
- CO-2.** Demonstrate the use of arrays, strings, structures, and unions in the 'C' programming language. [L-3]
- CO-3.** Demonstrate the use of re-useable code using functions in 'C'. [L-3]
- CO-4.** Describe and implement file handling mechanism in 'C' programs. [L-3]