



## PPS CT Paper

Programming For Problem Solving (SRM Institute of Science and Technology)



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Registration Number

SRM Institute of Science and Technology  
College of Engineering and Technology  
School of Computing

SET B

SRM Nagar, Kattankulathur – 603203, Chengalpattu District, Tamil Nadu

Academic Year: 2024-25 (EVEN)

Test: CT1

Course Code & Title: 21CSS101J Programming for Problem Solving  
Year & Sem: 1/1

Date: 24-02-2025

Duration: 1hr 40 mins

Max. Marks: 50

Course Articulation Matrix: (to be placed)

S.No	Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1	CO1	2	3										
2	CO2	2	3										2
3	CO3	2	3										2
4	CO4	2	3										2
5	CO5	2	3										2

**Course Outcomes (CO):****CO-1:** Solve problems through computer programming. Express the basic data types and variables in C**CO-2:** Use appropriate data types in simple data processing applications. To create programs using the concept of arrays.**Part A (10\* 1 = 10 Marks)**

Sl.No	Question	Marks	BL	CO	PO	PI Code
1	Which of the following is a valid way to write a multi-line comment in C? A) // This is a multi-line comment // B) /* This is a multi-line comment */ C) # This is a multi-line comment # D) -- This is a multi-line comment --	1	1	1	1	1.4.1
2	Which function is used to take user input in a C program? A) printf() B) input() C) scan() D) scanf()	1	1	1	1	1.3.1
3	What is the scope of a variable declared inside a function in C? A) Global B) Local C) Static D) Register	1	2	1	2	2.2.3
4	Which storage class in C retains the value of a variable between function calls? A) auto B) static	1	2	1	2	2.2.4



	C) extern D) register					
5	Which of the following is a valid variable name in C? A) int B) lvar C) var_name D) #var	1	2	1	2	2.4.1
6	Which of the following loops in C executes at least once, even if the condition is false? A) for loop B) while loop C) do-while loop D) Nested for loop	1	2	2	2	2.1.2
7	Which of the following operators has the highest precedence in C? A) + (Addition) B) * (Multiplication) C) && (Logical AND) D) = (Assignment)	1	2	2	2	2.4.2
8	Which statement is used for multiple conditional choices in C? A) if B) if-else C) switch D) while	1	2	1	2	2.4.2
9	What is the output of 5 % 2 in C? A) 1 B) 2 C) 0 D) 5	1	2	1	2	2.4.2
10	Which data type is used to store a single character in C? A) int B) char C) float D) double	1	2	1	2	2.4.2

**Part-B (5 x 4= 20 Marks)**  
**Answer all the questions**

Sl. No	Question	Marks	BL	CO	PO	PI Code
11	Devise an algorithm to read the age of two of your friends and find the sum, product and difference of their ages.	4	2	1	1	1.3.1
12	You are tasked with devising an algorithm for a basic calculator for a small grocery store to help the cashier to calculate the total price of two items. The cashier will input the price of both items, and your algorithm should calculate and display the total cost.	4	3	1	1	1.4.1
13	Debug the code given below so as to generate the desired output "Better Luck"  #include <stdio.h> int main() {	4	4	2	2	2.4.2



	<pre> int i; printf("Enter any number\n"); scanf("%d", i); switch(i) { case 1: printf("Do\n"); break; case 2: printf("Well\n"); break; case 3: printf("Do Better\n"); break; case: printf("Better Luck\n"); } } </pre>					
14	<p>Complete the program by filling in the missing parts in some statements.</p> <pre> #include&lt; _____ &gt; void main() { int m; printf("Input m value"); scanf(_____, &amp;m); _____(m) { case 9: printf("Autumn"); break; case 6: printf("Summer"); break; case 5: printf("Spring"); _____; case 1: printf("Winter"); } } </pre>	4	4	2	2	2.4.2
15	Create a tax calculator program that applies different tax rates based on income brackets and marital status.	4	3	1, 2	2	2.1.3

Part C (2 \* 10 = 20 Marks)