



Ct2 - Ct2

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



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SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
Vadapalani, Chennai – 600 026

Register No:

CONTINUOUS LEARNING (THEORY) ASSESSMENT– II
ODD SEMESTER, 2020- 2021
B.Tech COMPUTER SCIENCE AND ENGINEERING
18CSS101J – PROGRAMMING FOR PROBLEM SOLVING

Date: 12:1:2021 Time: 90 Mins

SEMESTER-I

MAXIMUM MARKS:50

COURSE LEARNING RATIONALE:

CLR -1: Think and evolve a logically to construct an algorithm into a flowchart and a pseudo code that can be programmed

CLR -2: Utilize the logical operators and expressions to solve problems in engineering and real time

CLR -3: Store and retrieve data in a single and multidimensional array

CLR -4: Utilize custom designed functions that can be used to perform tasks and can be repeatedly used in any application

CLR -5: Create storage constructs using structure and union, create and utilize files to store and retrieve information

CLR -6: Create a logical mindset to solve various engineering applications using programming constructs in C

COURSE LEARNING OUTCOME:

CLO-1: Identify methods to solve a problem through computer programming. List the basic data types and variables in C.

CLO-2 : Apply the logic operators and expressions. Use loop constructs and recursion. Use array to store and retrieve data.

CLO-3 : Analyze programs that need storage and form single and multi-dimensional arrays. Use preprocessor constructs in C.

PART – A		CLO.	K.NO.
Answer the MCQ's (10*1=10 Marks)			
1.	Which of the following operator takes only integer operands? A) + B) / C) % D) None of these	CLO1	K1
2.	In an expression involving operator, evaluation I) Will be stopped if one of its components evaluates to false II) Will be stopped if one of its components evaluates to true III) Takes place from right to left IV) Takes place from left to right A) I and II B) I and III C) II and III D) II and IV	CLO2	K2

3.	Find the output of the following: <pre>void main() { int i=0, j=1, k=2, m; m= i++ j++ k++ ; printf(“%d %d %d %d”, m, i, j, k); }</pre> <p>A) 1 1 2 3 B) 1 1 2 2 C) 0 1 2 2 D) 0 1 2 3</p>	CLO2	K2
4.	What will be the output? <pre>void main() { int a=10, b=20; char x=1, y=0; if(a,b,x,y) printf(“EXAM”); }</pre> <p>A) XAM is printed B) EXAM is printed C) COMPILER ERROR D) Nothing is printed</p>	CLO2	K2
5.	Which operator from the following has the lowest priority? A) Assignment B) Division C) Comma D) Dot	CLO2	K1
6.	Array elements are always stored in ----- memory locations. A) Sequential B) Random C) Sequential and Random D) None of these	CLO3	K1
7.	Let x be an array. Which of the following operations are illegal (throws error)? I) ++x II) x+1 III) x++ IV) x*2 <p>A) I and II B) III and IV C) I, II and III D) I, III and IV</p>	CLO3	K1
8.	What is the output of C Program.? <pre>int main() { int a[3] = {10,12,14}; a[1]=20; int i=0; while(i<3) { printf(“%d ”, a[i]); i++; } }</pre> <p>A) 20 12 14</p>	CLO3	K2

	B) 10 20 14 C) 10 12 20 D) Compiler error		
9.	What is the Format specifier used to print a String or Character array in C Printf or Scanf function? A) %c B) %C C) %s D) %w	CLO3	K1
10.	What is the output of this C code? <pre>int main() { void foo(), f(); f(); } void foo() { printf("2 "); } void f() { printf("1 "); foo(); }</pre> A. Compile time error as foo is local to main B. 1 2 C. 2 1 D. Compile time error due to declaration of functions inside main	CLO3	K2
PART – B			
Answer ANY FOUR questions(4 x 4 = 16 Marks)			
11.	Write C program to input a sequence of characters from user and check whether given character array has an alphabet or digit or special character using if else.	CLO2	K2
12.	Discuss about the Conditional iterators in C language.	CLO2	K1
13.	Write short notes on: strev, strcpy, strstr, strtok	CLO3	K1
14.	How an array construction is done for real-time application and what are the common programming errors in it?	CLO3	K1
15.	Compare the call by value and reference in function call with an example.	CLO3	K2
PART – C			
Answer the following		(2 x 12 = 24 Marks)	
16. (a)	Enumerate and compare for loop syntax with while loop using an example in C language. Discuss the common problems in loops.	CLO2	K2

(OR)			
(b)	Write a C program to find maximum and minimum between two numbers using functions	CLO3	K2
17. (a)	Write a C program to compute addition of two matrices.	CLO2	K3
(OR)			
(b)	Write a C program to convert given uppercase string to lowercase and viceversa.	CLO3	K3

K1- Remember, K2 - Understand, K3 – Apply, K4- Analyse, K5 – Evaluate, K6 - Create
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