Guru Nanak Dev Engineering College, Ludhiana				
Department of Information Technology				
Program	B.Tech.(ME,EE,CIVIL)	**Semester**		1st
Subject Code	ESC-104	**Subject Title**		PPS
Mid Semester Test (MST) No.	2	**Course Coordinator(s)**		Er,Goldendeep Kaur Er.Kuljeet Kaur, Er.Harkomalpreet Kaur Er.Ranjodh Kaur Er.Sidharth Jain
Max. Marks	24	**Time Duration**		1 hour 30 minutes
Date of MST	3 Feb, 2022	**Roll Number**		

Note: Attempt all questions

Q. No.	Question	COs, RBT level	Marks
Q1	a) Create a code for Finding the roots of equations.	CO8, L6	4
	b) Create a code for Parameter passing in functions.		4
Q2	a) Write a program to display the factorial of a number using recursion.	CO5, L6	4
	b) Compare call by value and call by reference.		4

Q3	a) Complete the following code or correct the following code if something missing.
	struct time{
	int hrs=10;
	int mts=20;
	int secs=35;
	}t1,t2,t3;
	
	How structures are different from an array?
	
	b) Write a pseudo-code for **Bubble sort , Insertion sort and selection sort algorithm and its concepts.**
		CO5, L6	4
			
			4

Course Outcomes (CO)
Students will be able to

1	To formulate simple algorithm for arithmetic and logical problems
2	To translate the algorithms to program(in c languages)
3	To test and execute the programs and correct syntax and logical errors
4	To implement conditional branching, iteration and recursion.
5	To decompose a problem into function and synthesize a complete program using divide and conquer approach.
6	To use array, pointer and structure to formulate algorithms and programs
7	To apply programming to solve matrix addition and multiplication problems and searching and sorting problems.
8	To apply programming to solve simple numerical method problems, namely rot finding of function, differentiation of function and simple integration.

RBT Classification	Lower Order Thinking Levels (LOTS)			Higher Order Thinking Levels (HOTS)		
RBT Level Number	L1	L2	L3	L4	L5	L6
RBT Level Name	Remembering	Understanding	Applying	Analyzing	Evaluating	Creating