KANPUR INSTITUTE OF TECHNOLOGY

(An Autonomous Institute of AKTU, Lucknow)

A-1, UPSIDC Industrial Area, Rooma, Kanpur-208001 (U.P.) India

ODD SEM SUMMATIVE EXAM , AY: 2024-25	PROGRAM : B.TECH	ROLL NO :
SUBJECT CODE : CS11030	BRANCH : CS/AI-ML/IT	SECTION: A/B/C/D
SUBJECT NAME : PROGRAMMING FOR PROBLEM SOLVING IN C	SEMESTER : 1ST	FACULTY NAME :

Time: 2hrs　　　　　　　　　　　　　　　　　　　*Total Marks: 30*

Note: Attempt all Sections

Attempt any one set of questions for CO1.

Attempt all questions		02 x 01=02
1a.	Write any 5 features of C Programming.	1
1b.	Define printf() and scanf().	1

Attempt any one question		01x 04=04
2a.	Write a program of global and local variable in C.	4
2b.	Describe formatted and unformatted input/output function with example.	4

OR

Attempt all questions		02 x 01=02
1a.	Define predefined and user-defined datatype.	1
1b.	Define the syntax of C Programming language.	1

Attempt any one question		01x 04=04
2a.	Explain the complete compilation process with diagram.	4
2b.	Difference between implicit and explicit conversion with example.	4

Attempt any one set of questions for CO2.

Attempt all questions		02 x 01=02
3a.	Define if-else statement.	1
3b.	Difference between break and continue.	1

Attempt any one question		01x 04=04
4a.	Write a program to make calculator using user defined function (using Switch statement).	4
4b.	Write a program to find whether the number is palindrome using while loop.	4

OR

Attempt all questions		02 x 01=02
3a.	Define Math function with example.	1

3b.	Difference between entry-controlled loop and exit-controlled loop	1

Attempt any one question		
4a.	Define Function. Write a program to pass an argument to a function with return type.	4
4b.	Write a program of star pattern. 1 2 3 4 5 1 2 3 4 1 2 3 1 2 1	4

Attempt any one set of questions for CO3.

Attempt all questions		02 x 01=02
5a.	What is Array? Define types of array.	1
5b.	Difference between character and string.	1

Attempt any one question		01x 04=04
6a.	Write a program to transpose a matrix using 2D array.	4
6b.	Write a program to concatenate 2 strings without using library-function	4

OR

Attempt all questions		02 x 01=02
5a.	Define any 2 ways to take input in string.	1
5b.	Define strlen() in C.	1

Attempt any one question		
6a.	Write a program to pass an array as argument to a function.	4
6b.	Write a program in C to find the maximum and minimum elements in an array.	4

Attempt any one set of questions for CO4

Attempt all questions		02 x 01=02
7a.	Define dot(.) operator and enum.	1
7b.	Name 4 storage classes.	1

Attempt any one question		01x 04=04
8a.	Define is Structure Padding explain with example.	4
8b.	Difference between anonymous structure and anonymous union with example.	4

Attempt all questions	02 x 01=02
	1
7a.	Define pragma directive.	
	1
7b.	Explain the use of typedef in C.	

Attempt any one question	
8a.	Write a program to define a structure Employee with fields id, name, salary, and department. Input details for 5 employees and display the details of employees who have a salary greater than 50,000.	4
8b.	Define an enum for traffic light signals (RED, YELLOW, GREEN). Write a program to print actions (e.g., "Stop" for RED, "Wait" for YELLOW, "Go" for GREEN) based on the signal.	4

Attempt any one set of questions for CO5

Attempt all questions	02 x 01=02
	1
9a.	Define Pointers.with example.	
	1
9b.	Difference between malloc() and calloc().	

Attempt any one question	01x 04=04
	4
10a.	Define Pointer Arithmetics and perform 2 operation with examples.	
	4
10b.	Write a program to perform swapping between 2 numbers using call by value and call by reference.	

Attempt all questions	02 x 01=02
	1
9a.	Define fopen().	
	1
9b.	Difference between getch() and getche().	

Attempt any one question	
	4
10a.	Write a program to declare function pointer.	
	4
10b.	Write a program of Double Pointer.	