

G H Raison College of Engineering and Management, Pune.*(An Empowered Autonomous Institute affiliated to Savitribai Phule, Pune University, NAAC Accredited "A+" Grade)***FY B.TECH (TERM/SEM- II)****ESE SUMMER 2025 (2023 Pattern)****Programming for Problem Solving (23UESL1102)**

[Time: 2.5 Hours]

[Max. Marks 60]

Instructions to the candidates:

- 1) All questions compulsory.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.
- 5) Other Instructions, if any.

Q. No.	Sub Question	Question	Marks	CO	BL
1	a)	Outline the process of problem solving with suitable example.	[5]	CO1	L2
	b)	Illustrate the types of operators used in C programming.	[5]	CO1	L2
2	a)	Differentiate between entry controlled loop and exit controlled loop using suitable example of each kind.	[5]	CO2	L3
	b)	Explain nested FOR loop. Write a program using nested FOR loop.	[5]	CO2	L3
3	a)	Illustrate use of break statement and continue statement.	[5]	CO2	L2
	b)	Write a program to find factorial of a given number using entry controlled loop.	[5]	CO2	L3
		OR			
	c)	Write a program to display following pattern. * *** ***** *****	[5]	CO2	L3
4	a)	Summarize the concept of function and its advantages.	[5]	CO3	L2
	b)	Write a program to perform addition of two numbers using function without parameter.	[5]	CO3	L3
	c)	Write a program to swap two numbers using Call by value and call by reference method.	[5]	CO3	L3
5	a)	Differentiate between array and structure with example.	[5]	CO4	L2
	b)	Explain designated initialization of array with one example.	[5]	CO4	L2
	c)	Write a program to find the minimum and maximum element of the array.	[5]	CO4	L3
		OR			
	d)	Write a program using array of structure for getting user input of 5 students Roll Number, Name and percentage and display all the details.	[5]	CO4	L3

- BL – Bloom's Taxonomy Levels (1- Remembering, 2- Understanding, 3 – Applying, 4 – Analyzing, 5 –Evaluating, 6 - Creating).