[Total No. of CO's: 05] Seat No: [ ] [Total No. of Pages: 02]

G. H. Raisoni College of Engineering and Management, Pune.
(An Autonomous Institution affiliated to Savitribai Phule ,Pune University)
F.Y.B.TECH (Term- I)
ESE Winter 2020 (2020 Pattern)
Computer Programming (UCOL101)

[Time: 2 Hours] **[Max. Marks: 50]**

COURSE OUTCOME:

CO 1:-Design algorithms and flowcharts for solving Mathematical and Engineering Problems
CO 2:-Apply the suitable Control structures to solve the given problem
CO 3:-Investigate the problems and identify the use of Pointers and Functions in it.
CO 4:-Assess the programming structure and recommend the type of array to be useful to find a solution forapplications.
CO 5:-Synthesize various problems to develop logical thinking

Instructions to the candidates:

1. ***(CO1/CO2/CO….)at the beginning of question/sub question indicates the course outcome related to the question.***
2. ***All questions are compulsory.***
3. ***Neat diagrams must be drawn wherever necessary.***
4. ***Figures to the right indicate full marks.***
5. ***Assume suitable data, if necessary***

CO	*Sub Question*		*Marks*	*BL*
CO1	*a)*	***List derived datatypes in c programming.***	***[2]***	L2
	b)	***What is an operator? Explain the arithmetic, relational, logical, and assignment operators in C language.***	***[4]***	L3
	c)	***Design a flowchart and algorithm to calculate addition of two numbers.***	***[4]***	L3
		OR		
	c)	***Design a flowchart and algorithm to print user on console, take your name as input from console.***	***[4]***	L3
CO2	*a)*	***Apply the concept of if-else statement to find whether the person is eligible for COVID vaccine.(Age above 45 are eligible for vaccine)***	***[4]***	L3
	b)	***Write a program to print odd numbers within the range of 1 to 50 using while loop.***	***[6]***	L5
CO3	*a)*	***Define recursive function and find the solution to print factorial of given number using recursive function.***	***[5]***	L4

	b)	***Demonstrate the use of function with parameter passing and write a program to swap two numbers.***	***[5]***	L4
CO4	***a)***	***Apply the concept of array to store the value of students' roll no, name and display the record for 5 students***	***[5]***	L4
	c)	***Describe the concept of pointers and write a program to print size of pointer.***	***[5]***	L4
CO5	***a)***	***Design a C program to add two integer numbers.***	***[4]***	L4
	b)	***Design a C Program to Check Whether a Number is Prime or Not***	***[6]***	L5