U.S.N.										

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

December 2023 Supplementary Examinations

Programme: B.E. **Semester: IV**
Branch: Industrial Engineering and Management **Duration: 3 hrs.**
Course Code: 22IM4PCFPT **Max Marks: 100**
Course: Fundamentals of Programming Tools

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

		UNIT - I	*CO*	*PO*	Marks
1	a)	Explain the basic requirements of a programming language.	CO1 CO2	PO1	**10**
	b)	Name and explain some Industrial Applications where Sensing or Programming is applicable	CO1 CO2	PO1	**10**
		OR			
2	a)	Explain the Solution Engineering Process with help of a suitable Block Diagram	CO1 CO2	PO1	**10**
	b)	List and Explain the components of Enterprise Engineering	CO1 CO2	PO1	**10**
		UNIT - II			
3	a)	With help of a block diagram, Explain the basic Architecture of Arduino boards	CO2	PO2	**10**
	b)	Explain the IDE Environment used in Arduino Boards.	CO2 CO3	PO2	**10**
		UNIT - III			
4	a)	List and Explain the Industrial Applications of Raspberry Pi	CO1 CO2	PO1	**10**
	b)	What are the types of OS used in Raspberry Pi board? Explain.	CO1 CO2	PO1	**10**
		UNIT - IV			
5	a)	Design an Algorithm for Regula False Position Method, also include a suitable flow chart.	CO4	PO3	**10**
	b)	Develop the Python Code for the method worked as a solution for Question 5(a).	CO3 CO4	PO3	**10**

			OR			
	6	a)	Solve the equation $x^3-x-1 = 0$ manually by Newton Raphson Method	CO4	PO3	**10**
		b)	Develop a Python code to find Fibonacci numbers for the first 30 terms. 10	CO3 CO4	PO3	**10**
			UNIT - V			
	7	a)	Justify the following: "Python is an Interpretive Language and doesn't require a compiler".	CO4	PO3	**10**
		b)	Explain the use of "If Loop" in Python with a suitable example.	CO4	PO3	**10**

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