RV College of Engineering®

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Academic Year 2023-2024 (ODD Semester)

USN:

Department of Artificial Intelligence and Machine Learning

Course Code: AI234AI
Sem: III Semester
Duration: 90 Minutes

Date: 22 Feb 2024
Maximum Marks: 50

CIE-II
Foundation of Cyber-Physical Systems

SL. No		Questions	M	BT	CO
1	a)	Discuss the bit and byte-organized schemes with an example.	5	2	1
	b)	Define Direct Memory Access (DMA) and discuss types of DMA.	5	2	1
2	a)	Consider array of elements [10, 20, 30, 40, 50, 60, 70, 80, 90, 100] and illustrate the sum of the array elements using the concept of Parallel computing.	5	3	2
	b)	Discuss the Services in a Stereovision Tracking System.	5	3	1
3	a)	Summarize Processor and I/O Interconnection in Stereovision Tracking System.	5	2	3
	b)	Illustrate PCI Express Byte Lane Network Architecture.	5	3	2
4	a)	Discuss the fundamental and extended services offered by RTOS in Embedded Systems.	5	2	1
	b)	Illustrate Common Physical Memory Hierarchy for an Embedded System.	5	3	2
5	a)	With a neat sketch discusses SIMD and MIMD Computers.	10	3	2

Course Outcome	
CO1	Understand and apply the knowledge of engineering specialization to address the complex engineering problems
CO2	Analyze the various Cyber-Physical components used in solving the real-world problem
CO3	Design solution for complex engineering problem using Cyber Physical Systems
CO4	Communicate effectively and collaborate in group to carryout Cyber Physical System activities
CO5	Demonstrate design skills to solve inter-disciplinary problems using modern tools effectively by exhibiting teamwork through oral presentation and written reports.

M-Marks, BT-Blooms Taxonomy Levels, CO-Course Outcomes

	Particulars	CO1	CO2	CO3	CO4	L1	L2	L3	L4	L5	L6
Marks Distribution	Max Marks	20	25	05	-	-	20	30			

---------- ALL THE BEST ----------