MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY AND MANAGEMENT
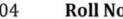(AN AUTONOMOUS INSTITUTION)
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III B. Tech I Sem Supply End Examination, December 2022
Microprocessors and Micro Controllers
(ECE)

Time: 3 Hours.   **Max. Marks: 70**

Note: 1. Question paper consists: Part-A and Part-B.
   2. In Part – A, answer all questions which carries 20 marks.
   3. In Part – B, answer any one question from each unit.
      Each question carries 10 marks and may have a, b as sub questions.

PART- A
                                              (10*2 Marks = 20 Marks)

1.	a)	Name the functional units of 8086 microprocessor.	2M	CO1	BL1
	b)	Demonstrate the 16- bit registers present in 8086.	2M	CO1	BL2
	c)	List the various interrupts supported by the 8051 microcontrollers.	2M	CO2	BL1
	d)	Show the highest priority interrupt of 8051.	2M	CO2	BL1
	e)	Defend how ADC is interfaced with 8051microcontroller.	2M	CO3	BL1
	f)	What are the tasks involved in keyboard interface?	2M	CO3	BL2
	g)	Show the ARM core data flow model.	2M	CO4	BL2
	h)	What is a CISC processor?	2M	CO4	BL2
	i)	Outline the classifications of OMAP Processor.	2M	CO5	BL2
	j)	Show the application of CORTEX-RX Processor.	2M	CO5	BL1

PART- B
                                              (10*5 Marks = 50 Marks)

2	a)	Investigate the Pin configuration in 8086.	5M	CO1	BL3
	b)	Evaluate how registers are organized in 8086 microprocessor?	5M	CO1	BL4

OR

3		Examine the different addressing modes of 8086 in detail.	10M	CO1	BL2

4	a)	List out few comparison of microprocessor and Microcontroller in detail.	5M	CO2	BL1
	b)	Write short notes on external hardware interrupts.	5M	CO2	BL1

OR

5		Explain any four arithmetic instructions of 8051 microcontroller with examples.	10M	CO2	BL2

6	a)	Explain about the architecture of UART to be connected to 8051 microcontroller.	5M	CO3	BL2
	b)	Differentiate between parallel and serial communications.	5M	CO3	BL2

OR

7	a)	Draw a neat sketch of the internal RAM of 8051 microcontroller.	5M	CO3	BL3
	b)	Analyze the interfacing of DAC with 8051 microcontroller.	5M	CO3	BL4

8		Summarize the architecture of ARM processor.	10M	CO4	BL2

OR

9	a)	List out different Data processing instruction of ARM processor	5M	CO4	BL2
	b)	Why exceptions are used in ARM processors?	5M	CO4	BL2

10	a)	Discuss the features of ARM CORTEX M Processor.	5M	CO5	BL2
	b)	Explain ARM CPSR register in detail.	5M	CO5	BL4

OR

11	a)	Describe the operating modes of Cortex-M3 Processor.	5M	CO5	BL2
	b)	Estimate the applications of ARM CORTEX–M processor	5M	CO5	BL5

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CO - Course Outcome   **BL - Blooms Taxonomy Levels**