Code No: 126VM

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech III Year II Semester Examinations, July/August - 2021
MICROPROCESSORS AND MICROCONTROLLERS
(Common to ECE, ETM)

Time: 3 hours

Max. Marks: 75

Answer any five questions
All questions carry equal marks
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1.a)	Explain Minimum mode and maximum mode of operation in 8086 in detail.	
b)	What do you mean by pipelined operation?	[8+7]
2.a)	Explain in detail about the system bus timing of 8086.	
b)	Explain the register organization of 8086.	[7+8]
3.a)	Briefly explain the addressing modes of 8086 with suitable examples.	
b)	Write a note about stack, procedures and macros.	[8+7]
4.a)	Write an ALP to find the largest number and smallest number in the array.	
b)	Write a short note on Loop, NOP and HLT instructions.	[8+7]
5.a)	Explain interrupt structure of 8086 family microprocessor.	
b)	Draw and discuss the status word format of 8251.	[8+7]
6.a)	Explain the different modes of operation of 8255.	
b)	Interface 16k × 8 ROM to the 8086 microprocessor.	[7+8]
7.a)	Discuss the advantages of microcontroller systems over microprocessor systems.	
b)	Explain the register set of 8051 microcontroller.	[8+7]
8.a)	Write an ALP to generate 1kHz square wave on P2.1 pin. Assume XTAL=11.0592 mHz.	
b)	Explain the importance of the TI and RI bits in serial communication.	[7+8]

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