Code No:**R32044** **R10** **Set No. 1**

III B.Tech II Semester Supplementary Examinations, November - 2017
MICRO PROCESSORS AND MICRO CONTROLLERS
(Common to Electronics and Communications Engineering, Electronics and Instrumentation Engineering, Bio-Medical Engineering, Electronics and Computer Engineering)

Time: 3 hours **Max. Marks:75**

Answer any FIVE Questions
All Questions carry equal marks
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1	a)	List out the different Minimum mode pins of 8086 microprocessor and explain each one in detail.	[8M]
	b)	What is segmentation and explain different segmentations in 8086 microprocessor? How to calculate Physical address of 8086 microprocessor?	[7M]
2	a)	Draw the interrupt vector table of 8086 microprocessor and list out different mask able and non-mask able interrupts of a processor.	[8M]
	b)	Write an assemble language program to find the number of EVEN and ODD numbers in an 8-bit array.	[7M]
3	a)	Draw the block diagram of 8255 PIO and explain different modes of operation.	[8M]
	b)	Interfacing of 8086 microprocessor with IC AD0800 convertor and explain its operation with one example.	[7M]
4	a)	What is DMA? Explain its need along with block diagram of 8257 DMA.	[8M]
	b)	Explain different methods of communications and draw the 8251 USART block diagram in detail.	[7M]
5	a)	Draw the different register organization of 80386 and explain each register in detail.	[8M]
	b)	Explain following terms in detail of 80386 microprocessor (i)protected mode (ii) real address mode	[7M]
6	a)	Draw the block diagram of 8051Microcontroller and explain its operation in detail	[7M]
	b)	Explain the following registers of 8051 microcontroller (i)SCON (ii)TCON (iii)PCON (iv)TMOD	[8M]
7	a)	Draw the block diagram of PIC16C61 controller and explain its operation.	[8M]
	b)	List out the features of PIC16C71 microcontroller with examples.	[7M]
8	a)	Explain the different operating modes of ARM processor and explain each one in detail.	[8M]
	b)	Draw the Program Status Register of ARM processor and explain each bit with example.	[7M]

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