## **B.Tech. DEGREE EXAMINATION, MAY - 2015**

## (Examination at the end of Third Year)

## **ELECTRONICS & COMMUNICATIONS**

## Paper - II: Microprocessors & Interfacing

Time: 3 Hours			Maximum Marks : 75
		Answer question No.1 compulsory	(15)
		Answer ONE question from each unit	$(4 \times 15 = 60)$
1)	a)	What is Register?	
	b)	Why Address Bus is unidirectional?	
	c)	Write the Parts of Microcomputer?	
	d)	What is WAIT Instruction?	
	e)	Define T-State.	
	f)	Write Minimum mode Signals (pins).	
	g)	Define Software.	
	h)	What is the function of Direction Flag(DF)?	
	i)	What is Operand?	
	j)	What is the difference between CALL and INT Instruction?	
	k)	Define Assembler.	
		<u>UNIT - I</u>	

- 2) a) Discuss about special functions of general purpose registers of 8086.
  - b) Explain the different types of flags available in 8086 with neat flag register format.

Discuss about the multiplexing in 8086? 3) a) Explain the following instructions with an example b) i) **MOV** ii) DAA iii) ROL AL, CL iv) IN and OUT **CMPSB** v) UNIT - II 4) a) Write an ALP to generate the FIBONOCI series. b) Write an ALP in 8086 to find 1's complement of a 16 bit hexadecimal number. OR Write an ALP to find minimum number from the given array. Array length is 5) a) N-bytes. Write an ALP to find the given number is Positive or Negative. b) **UNIT - III** *6*) Discuss the sequence of operations performed in the interrupt acknowledge cycle. a) What is the address map of interrupt address vector table? How many interrupts that table b) can serve? OR With relevant pin diagram explain the maximum mode operation of 8086. *7*) a) b) What is the difference between minimum and maximum modes of 8086? <u>UNIT - IV</u> 8) a) What is DMA? Explain need of DMA. Explain the Control Word Register format of 8253. b) OR 9) Draw the Command register of 8251 and explain each bit. a) Explain the Modem signals of 8251. b) φφφ