### Code No: 114CN

## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD B.Tech II Year II Semester Examinations, October/November - 2016 **COMPUTER ORGANIZATION**

## (Computer Science and Engineering)

## **Time: 3 Hours**

## Max. Marks: 75

Note: This question paper contains two parts A and B. Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

#### PART - A (25 Marks)

1.a)	Describe BUN instruction.	[2]
b)	$X = (A+B)^*(C+D)$ write the zero address instruction.	[3]
c)	Describe I/O command.	[2]
d)	Differentiate vectored and non vectored interrupt.	[3]
e)	Define content addressable memory.	[2]
f)	Differentiate write through and write back.	[3]
g)	Discuss the purpose of INTR in 8086.	[2]
h)	Write the memory read statements in 8086.	[3]
i)	Explain sorting instructions in 8086.	[2]
j)	Write instructions to Load space character into register CX.	[3]

#### PART - B (50 Marks)

2.	Explain Addressing mode with numeric example.	[10]
	OR	
3.a)	Construct circuit for program control status bit condition.	
b)	Describe memory reference instruction.	[5+5]
4.a)	Differentiate isolated I/O and memory mapped I/O.	
b)	Design parallel priority interrupt hardware for a system with eight	interrupt
,	sources.	[5+5]
	OR	L ]
5.	Explain DMA controller and DMA transfer with diagram.	[10]
6	Describe virtual memory in detail.	[10]
	OR	
7.a)	How many lines must be decoded for chip select? Specify the size decoders.	ze of the
b)	Design a block diagram, how multiple matched words can be read ou associate memory	t from an
c)	Describe associate mapping in cache memory.	4+3+3]

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8.	Describe concepts of pipelining in 8086.	[10]
	OR	
9.	Explain 8086 CPU with pin diagram.	[10]
10.a)	Write a program to multiply 2 numbers (16-bit data) for 8086.	
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b) Find number of times letter 'e' exist in the string "exercise", Store the count at memory. [5+5]

## OR

- 11.a) Write a 8086 AL Program For Displaying The String using Library Functions.
  - b) Write a 8086 AL Program For Arithmetic and Logic Instructions. [5+5]

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