R18

Code No: 153AH

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech II Year I Semester Examinations, February - 2024

COMPUTER ORGANIZATION AND MICROPROCESSOR

(Information Technology)

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

Note: i) Question paper consists of Part A, Part B.
ii) Part A is compulsory, which carries 25 marks. In Part A, answer all questions.
iii) 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

(25 Marks)

1.a)	What are instruction codes?	[2]
b)	Illustrate Control Memory of Computer Organization.	[3]
c)	List the addressing modes of 8086.	[2]
d)	What are the signals involved in memory bank selection of 8086 microprocessor?	[3]
e)	What does signal INTL does in 8086?	[2]
f)	Discuss about macros.	[3]
g)	Define synchronous data transfer.	[2]
h)	Discuss about peripheral devise.	[3]
i)	What is need of Cache Memory?	[2]
j)	Discuss about parallel processing.	[3]

PART – B

(50 Marks)

2.a)	Explain the block diagram Of Digital Computer.	
b)	With neat sketch explain Computer Architecture.	[5+5]
	OR	
3.a)	Explain Computer Registers in Computer Organization.	
b)	With neat sketch explain timing and control of Computer Organization.	[5+5]
4.a)	With neat sketch explain Register organization of 8086.	
b)	Explain Physical memory organization of 8086.	[5+5]
	OR	
5.a)	Explain Bus generation operation in 8086.	
b)	Explain Assembler Directives in 8086.	[5+5]
6.a)	Write an ALP to move 10 blocks of data from one memory to another.	
b)	With neat sketch explain stack structure of 8086.	[5+5]
	OR	
7.a)	Explain Interrupt Cycle of 8086.	
b)	Explain Macros in 8086.	[5+5]

8.a) Explain Floating Point Arithmetic Operations.
b) Explain modes of transfer. [5+5]

OR

9.a) Explain Direct Memory Access(DMA).
b) Explain Intel 8089 IOP. [5+5]

10.a) Explain Main memory.
b) Explain Instruction pipeline in detail. [5+5]

OR

11.a) Explain Associate memory.
b) Explain Vector Processing. [5+5]

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