H.T No

Regulations: A18

(An Autonomous Institution)

Code No: 7D408 **Date: 28-July-2022 (FN)**

B.Tech II-Year II- Semester External Examination, July/August - 2022 (Supplementary)

COMPUTER ORGANIZATION (CSE and IT)

Time: 3 Hours **Max.Marks:70**

Note: *a) No additional answer sheets will be provided.*
b) All sub-parts of a question must be answered at one place only, otherwise it will not be valued.
c) Missing data can be assumed suitably.

ANSWER ANY 5 OUT OF 8 QUESTIONS. EACH QUESTION CARRIES 14 MARKS.

Bloom's Cognitive Levels of Learning (BCLL)

Remember	L1	Apply	L3	Evaluate	L5
Understand	L2	Analyze	L4	Create	L6

			BCLL	CO(s)	Marks
1.	a)	What is bus explain it in detail?	L2	CO1	[7M]
	b)	Describe the operational concepts between the processor and memory.	L1	CO1	[7M]
2.	a)	Explain the design of micro-programmed control unit in detail.	L1	CO2	[7M]
	b)	Explain about shift micro operation.	L2	CO2	[7M]
3.	a)	Explain the design of ALU in detail.	L2	CO3	[7M]
	b)	Explain in detail the different instruction formats with examples.	L2	CO3	[7M]
4.	a)	Explain in detail with a neat figure the working of the internal architecture of the 8086MP.	L2	CO4	[7M]
	b)	Briefly explain various multipurpose registers in 8086.	L1	CO4	[7M]
5.	a)	What are assembler directives? Explain following assembler directives with an example i) PUBLIC ii) ORG iii) DW iv) ASSUME.	L1	CO5	[7M]
	b)	Explain different signals of 8255 PP and control words.	L3	CO5	[7M]
6.	a)	With format explain rotate instructions. Give examples to rotate right by 1-bit and rotate Left by 5-bits.	L3	CO6	[7M]
	b)	What are the sources of interrupts? Briefly explain the steps taken by a processor to execute an interrupt instruction.	L2	CO6	[7M]
7.	a)	Explain memory unit functions.	L2	CO1	[5M]
	b)	Explain the following: i. Address sequencing in control memory. ii. Micro program sequencer.	L2	CO2	[5M]
	c)	Derive and explain an algorithm for adding and subtracting two floating point binary numbers.	L3	CO3	[4M]
8.	a)	Write and explain machine code for instruction MOV DL, [BX]	L3	CO4	[5M]
	b)	Briefly explain various multipurpose registers in 8086.	L1	CO5	[5M]
	c)	Explain command word format of 82C55 in mode-0. Write the control word format to initialize to set PC3 and reset PC7.	L3	CO6	[4M]

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