SNIST Sreenidhi Institute of Science and Technology AUTONOMOUS

H.T No

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(An Autonomous Institution)

Regulations: A15

Code No: 5D408 **Date: 19-Aug-2023 (FN)**

B.Tech II-Year II- Semester External Examination, Aug - 2023 (Supplementary)

COMPUTER ORGANIZATION AND MICROPROCESSOR & INTERFACING (CSE)

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

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.

Bloom's Cognitive Levels of Learning (BCLL)

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

Part - A Max.Marks:25

ANSWER ALL QUESTIONS

		BCLL	CO(s)	Marks
1	Explain about Floating Point representation.	L2	CO1	[2M]
2	Explain about logic micro-operations.	L2	CO2	[2M]
3	Define micro program.	L1	CO3	[2M]
4	Discuss about Special function Registers in 8086.	L2	CO4	[2M]
5	Explain TEST and READY Signals in 8086.	L2	CO5	[2M]
6	Explain the function of Interrupt vector table.	L2	CO6	[3M]
7	Explain about Arithmetic logic shift unit.	L2	CO1	[3M]
8	Discuss any two assembler directives of 8086.	L2	CO4	[3M]
9	Write an 8086 program for adding two numbers.	L1	CO5	[3M]
10	Explain the interrupt structure of 8086.	L2	CO6	[3M]

Part – B Max.Marks:50

ANSWER ANY FIVE QUESTIONS. EACH QUESTION CARRIES 10 MARKS.

			BCLL	CO(s)	Marks
11.	a)	Apply 2's complement to perform the arithmetic operation (+35) – (- 15)	L3	CO1	[5M]
	b)	Analyze the binary word 10110 into 9 bits with odd parity hamming code.	L4	CO1	[5M]
12.	a)	Distinguish between RISC and CISC Architecture.	L2	CO2	[5M]
	b)	Explain about the STACK Organization and instructions used for stack operation.	L2	CO2	[5M]
13.	a)	Explain about Micro programmed Control unit design.	L2	CO3	[5M]
	b)	Draw and explain the flow chart for any two logical operations.	L2	CO3	[5M]
14.	a)	Explain about any two Branching instructions of 8086 microprocessor with examples.	L2	CO4	[5M]
	b)	Draw and explain the architecture of 8086 microprocessor.	L2	CO4	[5M]
15.	a)	Discuss in detail about the maximum mode signals of 8086 microprocessor.	L2	CO5	[5M]
	b)	Write an 8086 program for sorting numbers in descending order.	L1	CO5	[5M]
16.	a)	Explain the architecture of 8255 PPI with neat diagram.	L2	CO6	[5M]
	b)	Explain in detail how 7- segment displays are interfaced with 8086 with neat diagram.	L2	CO6	[5M]
17.	a)	Apply 2's Complement to perform the arithmetic operation (+33) + (-25)	L3	CO1	[4M]
	b)	Write a short note on Shift micro-operations.	L1	CO2	[3M]
	c)	Draw and explain the flow chart for Division operation.	L1	CO3	[3M]
18.	a)	Draw and explain the flag register of 8086 microprocessor.	L2	CO4	[4M]
	b)	Write an 8086 program for Reverse of a string.	L1	CO5	[3M]
	c)	Explain about DOS & BIOS interrupts.	L2	CO6	[3M]

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