Sreenidhi Institute of Science and Technology
(An Autonomous Institution)

Code No: 5D408   **Date: 12-Aug-2022 (FN)**
B.Tech II-Year II- Semester External Examination, July/August - 2022 (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.*

ANSWER ANY 5 OUT OF 8 QUESTIONS. EACH QUESTION CARRIES 15 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)	Differentiate between multiprocessors and multicomputers.	L3	CO1	[8M]
	b)	Perform the Arithmetic operation **(+215) + (-113)** in decimal numbers using **2's** complement representation for negative numbers.	L3	CO1	[7M]
2.	a)	Define Instruction Cycle. Draw the flowchart of instruction cycle.	L1	CO2	[8M]
	b)	List any two similarities and differences among memory reference and register reference instructions.	L1	CO2	[7M]
3.	a)	Distinguish between Hardwired and Micro programmed control units.	L3	CO3	[8M]
	b)	Explain the division algorithm with flow chart.	L2	CO3	[7M]
4.	a)	Draw the architecture of 8086 microprocessor and mention its salient features.	L2	CO4	[8M]
	b)	Mention the different memory segments of 8086 and list its importance.	L1	CO4	[7M]
5.	a)	Write an assembly language program of 8086 to transfer an array of numbers to another location and store in reverse order.	L1	CO5	[8M]
	b)	Compare memory mapped I/O with I/O mapped I/O.	L3	CO5	[7M]
6.	a)	What are the different sources of 8086 interrupts? Briefly explain the steps taken by the processor to execute an interrupt.	L2	CO6	[8M]
	b)	Draw the circuit diagram of interfacing 8086 CPU to DAC0808 using 8255 PPI.	L1	CO6	[7M]
7.	a)	Explain instruction formats with examples.	L2	CO1	[8M]
	b)	Briefly explain Flag registers in 8086.	L1	CO2	[7M]
8.	a)	Write the 8086 assembly language program to check whether the number is Palindrome or not. If it is palindrome, set the carry otherwise clear the carry.	L1	CO4	[8M]
	b)	Discuss the interface of 8086 with keypad and Display device with a suitable diagram.	L3	CO5	[7M]

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