

K. J. Somaiya Institute of Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)

August 2023	(B. Tech.) Program: B.Tech. (Artificial Intelligence and Data Science)	Scheme II:
	Examination: SY Semester: IV	
	Course Code: AIC405 and Course Name: Microprocessor	
Date of Exam: 28/8/2023	Duration: 2.5 Hours	Max. Marks: 60

Instructions:

- (1) All questions are compulsory.
- (2) Draw neat diagrams wherever applicable.
- (3) Assume suitable data, if necessary.

		Max. Marks	CO	BT level
Q 1	Solve any six questions out of eight:	12		
i)	Explain the terms 'Offset Address' and 'Physical Address' with examples		CO1	Rem
ii)	Give the coding format for immediate to register MOV instruction. Explain in brief with suitable example.		CO2	U
iii)	List types of interrupts in microprocessor 8086		CO3	U
iv)	Explain in brief, mixed mode programming		CO4	U
v)	Discuss in brief concept of 'Pipelining'.		CO5	U
vi)	List five important features of Pentium Processor		CO6	R
vii)	List features of 8086 microprocessors		CO1	U
viii)	Compare 'Procedure' and 'Macros' in programming		CO2	U
Q.2	Solve any four questions out of six.	16		
i)	Write short note on BIU of microprocessor 8086		CO1	U
ii)	Classify the 'Instruction Set' of 8086 with at least two examples in each group		CO2	U
iii)	Give formats of Initialization Command Words(ICW)of PIC 8259		CO5	U
iv)	Compare I/O mapped I/O and memory mapped I/O		CO4	U
v)	Explain formats of I/O mode Control Words for PPI 8255		CO5	U
vi)	Write short note on Instruction and data cache in 32 bit microprocessors		CO6	U

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Q.3	Solve any two questions out of three.	16		
i)	Explain Minimum mode operation for microprocessor 8086. Draw a simple sketch for the same.		CO1	U
ii)	Explain with Block diagram, working of DMAC 8257		CO3	U
iii)	Draw the functional block diagram of 8259 and list few important features		CO5	Ap
Q.4	Solve any two questions out of three.	16		
i)	Discuss 'Instruction & Data Cache' concept		CO2	U
ii)	Describe 32-bit intel Pentium architecture		CO6	U
iii)	Describe address demultiplexing for microprocessor 8086		CO4	U
