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

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May-June 2025		
(B. Tech) Program: EXTC		Scheme : IIB
Regular Examination: SY		Semester:IV
Course Code: EXC402	and	Course Name: Microcontrollers
Date of Exam: 21/05/25	Duration: 02.5 Hours	Max. Marks: 60

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

Q. No.	Question	Max. Marks	CO	BT level
Q 1	**Solve any two questions out of three: (05 marks each)**	10		
a)	Compare RISC and CISC		1	U
b)	Explain different types of Semiconductor memories		2	U
c)	Comparison of 8051 family members		3	U
Q 2	**Solve any two questions out of three: (05 marks each)**	10		
a)	List 8051 Data types and directives		4	U
b)	Explain ARM 7 operating modes		5	U
c)	Write note on GIPO for ARM		6	U
Q.3	**Solve any two questions out of three. (10 marks each)**	20		
a)	Explain concept of Interrupts in 8051		1	U
b)	Explain Virtual Memory Concept with Memory Management Unit with Segmentation and Paging.		2	U
c)	Explain Serial Communication in 8051		3	U
Q.4	**Solve any two questions out of three. (10 marks each)**	20		
a)	WAP to find smallest and Largest number in series		4	Ap
b)	Explain ARM 7 Load Store Model Distinguish between Thumb state and ARM state		5	U
c)	Explain CORTEX A, CORTEX R and CORTEX M		6	U

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Seat No.: