(B. Tech) Program: EXTC ~~Regular~~ Examination: SY (supplementary) July/Aug ~~May-June~~ 2025 Course Code: EXC402, and Date of Exam: 30/07/25 Duration: 02.5 Hours	Scheme : II-B Semester:IV Course Name: Microcontrollers 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)	Distinguish between Von Neumann and Harvard Architecture.		1	U
b)	Classify Memory: Primary and Secondary		2	U
c)	Discuss the Special Function Registers (SFRs) of 8051		3	U
Q 2	**Solve any two questions out of three: (05 marks each)**	10		
a)	Explain the need of Assembler & Cross Assemble, Assembler Directives		4	U
b)	Explain ARM 7 Features		5	U
c)	Explain Timer Mode in ARM		6	U
Q.3	**Solve any two questions out of three. (10 marks each)**	20		
a)	Explain concept of timers and counters in 8051		1	U
b)	Explain different types of Semiconductor memories Classify Memory: Primary and Secondary		2	U
c)	Explain serial data input and output concept in 8051		3	U
Q.4	**Solve any two questions out of three. (10 marks each)**	20		
a)	WAP to sort numbers using 8051		4	Ap
b)	Explain ARM 7 Programmers Model		5	U
c)	Write Short Note on LPC2148		6	U

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Seat No.: