

Enroll No

K.E.Society's  
**Rajarambapu Institute of Technology, Rajaramnagar**  
 (An Empowered Autonomous Institute, affiliated to SUK)

Q.P.Code
UT2972

**Unit Test -I ( 2025-26)**

T.Y.B.Tech.-Electrical Engineering

**Course Code: EE315**

**Course Name: Microcontroller & its Applications**

Day & Date: Tuesday 12/08/2025

Time: 11.45 am To 12.45 pm

Max Marks- 25

- Instructions:**
- 1) All questions are compulsory.
  - 2) Figures in rounded ( ) brackets within the question, indicate the scheme of marking for respective part of the question, whereas, figures in the first right column indicate total marks for that whole question.
  - 3) CO is the index number of the Course Outcome statement.
  - 4) The Bloom's taxonomy level (BL) for 1,2,3,4,5 and 6 is remember, understand, apply, analyze, evaluate and create respectively.
  - 5) Assume suitable data if necessary.
  - 6) Use of non-programmable calculators is allowed

		Marks	BT Level	COs
Q.1 A	Explain the function of the following pins of 8051. (each pin 02M)	06	02	CO1
	1) EA 2) ALE 3) PSEN			

**OR**

Explain the function of each bit in the PSW register of 8051.(Dig-01M, explanation 05M)

B	Difference between microprocessor and microcontroller.(each point 1M)	07	02	CO1
Q.2 A	Explain how the DA A (Decimal Adjust Accumulator) instruction works after BCD addition with example.( Conditions 02M, Example 04M)	06	02	CO2

**OR**

Explain all addressing modes of the 8051 microcontroller with instruction examples.( Explanation of each mode-03M, Examples 03M)

B	Write an assembly program to divide two 8-bit numbers (48H divided by 05H) and store the quotient in R7 and the remainder in R6. ( Step-by-Step Execution 05M, Output 01M)	06	03	CO2
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