

S.B. Roll No.....

**MICROCONTROLLER AND EMBEDDED SYSTEMS**  
**5<sup>th</sup> Exam/ECE/3610/Jan'2022**  
**(FOR 2018 BATCH ONWARD)**

**Duration: 1.15Hrs.**

**M.Marks:25**

**SECTION-A**

**Q1. Attempt any three questions.**

**3x5=15**

- i. Give the block diagram of 8051.Explain.
- ii. Discuss the different modes of the timer operation.
- iii. Describe the interfacing of Keyboard with Microcontroller 8051.
- iv. List down the various applications of Microcontroller.
- v. What is a Microcontroller?
- vi. Describe the I/O port structure of 8051.
- vii. What is Peripheral Interface Controller?

**SECTION-B**

**Q2. Attempt any one question.**

**1x10=10**

- a. Explain the Addressing modes of 8051 with the help of suitable examples.
- b. List the different types of instructions of 8051. Explain any one group with examples.
- c. Draw and explain the architecture of 8051.
- d. Draw the PIN diagram of 8051 Microcontroller. Explain the function of each pin.