

00974

**B.Tech. IN ELECTRICAL ENGINEERING
(BTELVI)**

Term-End Examination

June, 2013

BIEE-010 : MICRO CONTROLLERS

Time : 3 hours

Maximum Marks : 70

Note : Attempt any seven questions. All questions carry equal marks.

1. Compare microprocessors and microcontrollers with the help of block diagrams and explain. 10
2. Draw and explain the block diagram of 8051 microcontroller. 10
3. Discuss the internal RAM Organisation of 8051 along with stack and stack pointer. 10
4. Explain the addressing modes of 8051 with suitable examples. 10
5. Put the number 34H in registers R5, R6 and R7 using four different methods. 10

6. Discuss the Jump and Call Program range in detail with an illustration. **10**
 7. Write the steps required to program timer T1 to interrupt after 8 ms using mode 'O' and oscillator of 12 MHz with 8051. **10**
 8. Discuss the memory constitution used in 8051 C computer mentioning the respective variables. **10**
 9. Explain how 8051 can be connected to RS 232 C of a computer for serial communication ? Why is the IC MAX 212 required as an interface ? **10**
 10. Write short notes on *any two* : **5x2=10**
 - (a) Timer Modes of 8051
 - (b) SFR's of 8051
 - (c) Interrupts of 8051
-