BIEE-010

B.Tech. IN ELECTRICAL ENGINEERING (BTELVI)

Term-End Examination

December, 2013

BIEE-010 : MICRO CONTROLLERS

Time : 3 hours   Maximum Marks : 70

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

1.   Discuss the evolution of microcontrollers upto   **10** 32 bit giving examples.

2.   Draw and explain the block diagram of   **10** 8051 microcontroller.

3.   Discuss the internal RAM organisation of   **10** 8051 along with stack and stack pointer.

4.   Enlist and discuss the bit-addressable control   **10** registers of 8051.

5.   Put the number $8D_H$ in RAM locations 30_H to 34_H **10** using four different methods.

6.   Discuss bit, byte and unconditional jumps with   **10** corresponding 8051 instructions as examples.

7. Write the steps required to program the timer T0 **10** to interrupt after 16ms using mode 1 and oscillator frequency is of 12MHz.

8. Write a C-program to write 0×75 at port 0 with **10** comments.

9. Write a C-program to set the band-rate equal to **10** 9600 in mode-3 for serial transmission using T1 in mode 2 for specifying band rate. Assume a 11.0592 MHz crystal. Reset SMOD bit.

10. Write short-notes on **any two :** **5x2=10**

    (a) Output Port 0 and Port 1 of 8051.

    (b) TCON and TMOD registers.

    (c) 8051 oscillator and clock.

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