B.Tech. ELECTRICAL ENGINEERING (BTELVI)

Term-End Examination

December, 2013

BIEEE-004 : MECHATRONICS

Time : 3 hours   *Maximum Marks : 70*

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

1.   Explain the construction of P.L.C. with neat sketch.   **10**

2.   Draw the neat sketch of a Microcontroller and Explain.   **10**

3.   Explain the operational Amplifier in detail.   **10**

4.   Explain the Co-ordinate system of Industrial Robot.   **10**

5.   (a)   Differentiate between transducer and sensor.   **5**

   (b)   Describe any two type of sensors.   **5**

6.   (a)   What is time Delay value ? Explain with neat sketch.   **5**

   (b)   Write a short note on Relay.   **5**

7. Explain Automobile Engine Control System. **10**
Explain it's different component and specific
criteria used for Engine Control.

8. (a) Describe the different Register of Intel 8086 **6**
Microprocessor.

(b) What is the full form of P.I.D. Controller ? **4**
Explain briefly.

9. Explain the construction and working principle **10**
of Brush type and Brush less type of D.C. motor.

10. Write short notes on the following (**any two**) :

(a) V.C.R. **5x2=10**

(b) N.C. Machine

(c) Computer printer

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