BIEE-015

# B.Tech. – VIEP – ELECTRICAL ENGINEERING (BTELVI)
## Term-End Examination
## June, 2016

00296

## BIEE-015 : MICROPROCESSOR AND ITS APPLICATIONS

*Time : 3 hours*                                *Maximum Marks : 70*

*Note :*

*(i)*      *Attempt any **seven** questions.*

*(ii)*     *Assume missing data, if any.*

*(iii)*    *Use of scientific calculator is permitted.*

1.  (a)  Explain the function of an ALU and input and output devices in the operation of a microprocessor.                                    5

    (b)  Explain the working of tri-state bus and give its advantages.                                5

2.  (a)  Explain the operation of the following instructions :                                      5

         (i)   INR M

         (ii)  ADD M

    (b)  Explain various flag registers of 8085.        5

3. Explain the architecture of 8086 microprocessor with the help of a neat block diagram. *10*

4. Write short notes on the following : *2×5=10*
   (a) De-multiplexing of address data bus
   (b) Interfacing of Static RAM

5. Explain each group of instruction set and give one example for each group. *10*

6. Write a program to add two hex numbers which are at memory location 2400 and 2450 respectively. Store the result at memory location 2670. *10*

7. Sketch and explain 8259 PIC and its operating modes. *10*

8. Explain different data transfer techniques using 8155. *10*

9. Write short notes on the following : *2×5=10*
   (a) 8255 PPI
   (b) 8237 DMA

10. What are the different addressing modes used in the 8086 microprocessor ? Explain each with a suitable example. *10*

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