BICS-012

B.Tech. – VIEP – COMPUTER SCIENCE AND ENGINEERING (BTCSVI)

Term-End Examination

00375

December, 2014

BICS-012 : MICROPROCESSOR

Time : 3 hours   *Maximum Marks : 70*

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

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1. (a) Write on 16 bit microprocessors.   *5*

   (b) Define code segment, data segment and explain with neat diagrams.   *5*

2. (a) What are the registers used in 8086 ?   *5*

   (b) Define assembly language. Explain it with suitable example.   *5*

3. (a) With examples write down the 8086 condition flags.   *5*

   (b) What are the different flow chart symbols ? Draw the flow chart for a program to read in 24 data samples from a port, correct each value and store each in a memory location.   *5*

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4. (a) What is a recursive procedure ? Explain with example. *5*

(b) Explain the program development algorithm, with the help of a neat diagram. *5*

5. (a) What is an interrupt ? What are the major actions of interrupt ? Draw the diagram of interrupt response. *5*

(b) Draw the interrupt-pointer table and explain it. *5*

6. (a) Define Hardware Interrupt. What are its applications ? *5*

(b) Write a short note on Interrupt for timing. *5*

7. What are the methods of parallel data transfer ? Draw the block diagram of 8255A system connections. *10*

8. Draw the block diagram and pin descriptions for the Intel 8251A USART. *10*

9. (a) Compare the 8086 and 8087 architectures and circuit connections. *5*

(b) What are the clock cycles for instructions in 8087 ? *5*

10. (a)   What is paging mode ?   *5*

   (b)   Explain and draw the diagram showing
          80386 system addressing (when paging
          mode is enabled).   *5*