

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

00114

**Term-End Examination**

**June, 2014**

**BICS-012 : MICROPROCESSOR**

*Time : 3 hours*

*Maximum Marks : 70*

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**Note :** Attempt any **seven** questions. Each question carries equal marks.

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1. Discuss the memory segmentation used in 8086 microprocessor programming. State the advantages of memory segmentation. 10
  
2. Show the location of data in memory, after execution of each of these instructions, if the content of registers are given as : 10  
DS = 1112<sub>H</sub>, AX = EE78<sub>H</sub> and BX = 3400<sub>H</sub>
  - (a) MOV [0422H], AL
  - (b) MOV [0424H], AX
  - (c) MOV [BX], AX
  
3. Interpret the following instructions : 10
  - (a) SUB CL, BYTE PTR [SI]
  - (b) DEC WORD PTR [SI]
  - (c) SAL dest, count
  - (d) IDIV L
  - (e) DAA

4. (a) Write down the steps required for the following conversions :
- (i) Primary to ASCII
  - (ii) ASCII to Primary
- (b) What is the role of the direction flag in string instructions ? Give an example.  $5 \times 2 = 10$
5. What is software interrupt and hardware interrupt ? How many hardware and software interrupts can 8086 support ? Describe in detail. *10*
6. With neat timing diagram explain the interrupt acknowledgement cycle of 8086 microprocessor. *10*
7. Discuss Mode-2 operation of 8255A. Give its Control word and Status word format. *10*
8. Discuss the salient features of 8279. Give its pinout diagram. *10*
9. Discuss the software and hardware features of 80486 microprocessor. *10*
10. Discuss the upgradations in Pentium processor over 80486 microprocessor. *10*
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