

**DIPLOMA – VIEP – ELECTRONICS AND  
COMMUNICATION ENGINEERING (DECVI)**

**Term-End Examination  
December, 2014**

00513

**BIEL-036 : MICROPROCESSOR**

*Time : 2 hours*

*Maximum Marks : 70*

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**Note :** *Question no. 1 is compulsory. Attempt any four from the rest.*

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1. Choose the correct answer :  $7 \times 2 = 14$

(a) In 8085, name the 16-bit registers.

- (i) Stack pointer
- (ii) Program counter
- (iii) Both (i) and (ii)
- (iv) None of the above

(b) What is SIM ?

- (i) Select Interrupt Mask
- (ii) Sorting Interrupt Mask
- (iii) Set Interrupt Mask

- (c) Address line for RST3 is
- (i) 0020H
  - (ii) 0028H
  - (iii) 0018H
  - (iv) None of the above
- (d) Which interrupt is *not* level sensitive in 8085 ?
- (i) RST6.5 is a raising edge-triggering interrupt
  - (ii) RST7.5 is a raising edge-triggering interrupt
  - (iii) Both (i) and (ii)
  - (iv) None of the above
- (e) Can ROM be used as stack ?
- (i) Yes
  - (ii) No
  - (iii) Sometimes yes, sometimes no
- (f) Which interrupt has the highest priority ?
- (i) INTR
  - (ii) TRAP
  - (iii) RST6.5
  - (iv) None of the above

- (g) What does microprocessor speed depend on ?
- (i) Clock
  - (ii) Data bus width
  - (iii) Address bus width
2. (a) What do you mean by Program Control Instruction ? State two examples of it. 7
- (b) Explain string instructions supported by 8086 processor. 7
3. Draw the timing diagram for CALL instruction and explain. 14
4. Write a program to display 0, 1, ... 9 and repeat on a seven segment display through 8255. 14
5. With a neat diagram explain the different modes of operations of 8255. 14
6. (a) Explain the following :  $5 \times 2 = 10$
- (i) STAX B
  - (ii) ADD
  - (iii) PUSH PSW
  - (iv) DIV
  - (v) AAM
- (b) State the purpose of HOLD pin and RESET pin. 4

7. Write short notes on any **two** of the following :  $2 \times 7 = 14$

- (a) Multi tasking and Multi programming
  - (b) Programmable peripherals interface
  - (c) Interrupt structure of 8085  $\mu$ P
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