



(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 131503

Roll No.

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**B.Tech. (Semester-V)****SPL. THEORY EXAMINATION, 2014-15****MICROPROCESSOR****Time : 2 Hours]****[Total Marks : 50****Note:** Attempt all questions.

1. Attempt any three parts of the following:  $4 \times 3 = 12$
- Explain ALE, HOLD, READY, S<sub>0</sub>, S<sub>1</sub> SIGNALS for 8085 microprocessor.
  - Draw and explain the architecture of 8085 microprocessor.
  - Explain the demultiplexing technique of AD<sub>0</sub> – AD<sub>7</sub>.
  - Explain the flag format of flag register used in 8085. Explain each in brief.
2. Attempt any four parts of the following:  $4 \times 4 = 16$
- Interface 16k RAM and 16k ROM with 8085 microprocessor with starting address 0000H given IC are one 8 kb ram and three 8 kb Eprom.

- (b) Describe the various addressing modes of 8085.
- (c) Give the difference between:
  - (i) Static RAM and Dynamic RAM
  - (ii) RAM and ROM
- (d) What is subroutine? How is it useful? Explain the use of stack in CALL and RETURN instructions.
- (e) Define:
  - (i) Instruction cycle
  - (ii) Machine cycle
  - (iii) T cycle

3. Attempt any two parts of the following:  $5 \times 2 = 10$

- (a) Write a program for binary to ASCII conversion for 8085 microprocessor.
- (b) Sixteen bytes of data are stored in memory locations at XX50H to XX5FH. Write a program to transfer the entire block of data to new memory locations starting at XX70H.
- (c) What are interrupt? Explain how INTR is executed by RST.

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4. Attempt any two parts of the following:  $6 \times 2 = 12$

- (a) Describe the functional block diagram of 8086 microprocessor.
- (b) With the help of block diagram, describe 8237 DMA controller.
- (c) Describe the interfacing of 8255 with 8085 microprocessor. Explain its control word also.

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