Printed Pages : 3

EEC-503

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

PAPER ID : 131503

Roll No.

B. Tech.

(SEM. V) (ODD SEM.) THEORY EXAMINATION, 2014-15

MICROPROCESSORS

Time : 2 Hours] [Total Marks : 50

Note :- Attempt **all** questions.

1 Attempt any **TWO** parts : **(6×2=12)**

(a) Draw the block diagram of microprocessor 8085. Explain the function of each block and pin diagram.

(b) Explain the basic operation of microprocessor 8085 during execution of an instruction.

(c) Give the differences between:

(i) Static RAM and Dynamic RAM

(ii) RAM and ROM.

2 Answer any **FOUR** parts: **(4×4=16)**

(a) Explain the interfacing of Input devices with all diagrams.

(b) Explain the addressing modes of 8085.

(c) Calculate the Time Delay in following program

```
        MVI   C,    FF H    (7 T states)
LOOP:   DCR   C             (4 T states)
        JNZ   LOOP          (10/7 T states)
```

(d) Explain all the Data Transfer instructions.

(e) Write a program to divide 10H by 04H.

(f) Explain the Memory structure and its requirements in memory Interfacing.

3 Answer any **THREE** parts: **(4×3=12)**

(a) Explain Binary to BCD code conversion techniques and write 8085 assembly language program for the same.

(b) Explain how 8085 responds to INTR interrupt.

(c) What is subroutine? How is it useful? Explain the use of stack in CALL and RETURN instructions.

(d) Write an assembly language program to multiply the two numbers stored in memory locations 2000 H and 2001 H respectively and place the result in memory location 2002 H.

4 Answer any **TWO** parts: **(5×2=10)**

(a) Explain the facilities available in 8259.Explain the fixed and rotating priority properly. How does 8259 identify its own status as master or slave? How does it identify its own number while on job?

(b) What do you understand by DMA? Discuss the internal block diagram of 8237A.

(c) Draw internal architecture of 8086 and explain each component. What do you mean by pipelining?
