08/05/29

PRS/KS/24/20106

Bachelor of Science (B.Sc.) Semester–V (New) Examination

ELECTRONICS : INTRODUCTION TO MICROPROCESSOR

Paper—II

Time : Three Hours] [Maximum Marks : 50

N.B. :— (1) All questions are compulsory and carry equal marks.

(2) Draw neat diagrams wherever necessary.

EITHER

1. (A) Draw the pin diagram of 8085 I_c and state the function of following pins :

(i) Address bus

(ii) Data bus

(iii) ALE

(iv) IO/$\overline{M}$ 5+5=10

OR

(B) Explain the configuration of flag register of 8085 µp. Name all General purpose register in 8085. Explain function of Accumulator and HL pair register. 4+2+4=10

EITHER

2. (A) Explain the addressing modes of 8085 µp with suitable examples. 10

OR

(B) State the function of following instructions of 8085 and identify the group of insturction set in which it falls :

(i) STA 6050 H

(ii) INRA

(iii) MOV H, A

(iv) OUT FFH

(v) LXIH (Address) 10

EITHER

3. (A) How is stack initialized in 8085 µp ? Explain PUSH and POP operation related to Stack. 2+8=10

OR

(B) What is subroutine ? How is it called during the program ? Explain the delay subroutine formation using single register. 7+3=10

EITHER

4. (A) Draw the block diagram of 8255 PPI and state the function of flowing control pins of it :

   (i) $\overline{RD}$

   (ii) $\overline{WR}$

   (iii) A_1A_0

   (iv) RESET

   (v) $\overline{CS}$ 5+5=10

OR

(B) Explain the different modes of data transfer. State and explain hardware and software interrupts. 6+4=10

5. Attempt any **ten** :

   (a) What is multiplexing of Address and data bus ?

   (b) State the function of PC of 8085 µp.

   (c) What is instruction cycle ?

   (d) State subroutine related instructions.

   (e) What is the advantage of stack in 8085 ?

   (f) List the example of register indirect addressing.

   (g) Give an example of 3 byte instruction.

   (h) What is the difference between direct and register addressing ?

   (i) List any two machine control instructions.

   (j) List the I/O modes of operation of 8255 PPI.

   (k) What is the significance of control register of 8255 PPI ?

   (l) Which interrupt is having highest priority in 8085 ? 1×10=10

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