

(Q) What is Flag ? Explain the various status Flags of 8085 μ p. 6

(R) Explain the function of PC in 8085 μ p. 2

EITHER

6. (A) What is subroutine ? Write ALP for delay subroutine using one register. 4

(B) Draw the Flow chart and write ALP for addition of two 8-bit numbers. 6

(C) Explain LDA and STA instructions with example. 2

OR

(P) Draw the flow chart and write ALP for finding the maximum no. out of two numbers. 6

(Q) Explain classification of instruction sets of 8085 μ p with suitable example. 6

EITHER

7. (A) Explain various operating modes of 8255 PPI. 6

(B) Explain control word format for I/O mode with suitable diagram. 6

OR

(P) Draw the pin diagram of 8255 PPI and explain the function of each pins. 6

(Q) Explain various data transfer schemes of 8255 PPI. 6

B.Sc. Part-II (Semester-IV) Examination

4S : ELECTRONICS

(Communication Electronics and 8085 Microprocessor)

Time—Three Hours]

[Maximum Marks—80

Note :—(1) ALL questions are compulsory.

(2) Draw neat diagrams wherever necessary.

1. (A) Fill in the blanks :

(i) ROM stands for _____.

(ii) ALU stands for _____.

(iii) AM is _____.

(iv) The width of data bus in 8085 is _____.

2

(B) Choose correct alternative for the following :

(i) 8255 PPI have _____ operating modes.

(a) Four (b) Two

(c) Three (d) One

(ii) Demodulation is opposite process of _____.

(a) Rectification (b) Multiplexing

(c) Modulation (d) None

- (iii) PAM stands for ____.
- (a) Pulse Amplitude Modulation
 (b) Pulse Alternate Modulation
 (c) Pulse Position Modulation
 (d) None
- (iv) The instruction STA 6500H is ____ instruction.
- (a) Two byte (b) One byte
 (c) Three byte (d) Four byte 2

(C) Write answer in one sentence :

- (i) What is Demodulation ?
 (ii) What is fetch cycle ?
 (iii) What is LASER ?
 (iv) What is the meaning of LDA2500H ? 4

EITHER

2. (A) Draw and explain the block diagram of superheterodyne receiver. 8
 (B) Show that :

$$P_T = P_C \left(1 + \frac{m^2}{2} \right) \quad 4$$

OR

- (P) Explain theory of AM. 6
 (Q) Draw the block diagram of FM transmitter and explain the function of each block. 6

EITHER

3. (A) Explain jointer and coupler. 6
 (B) What are the different types of optical detectors ? Explain any one of them. 6

OR

- (P) Explain advantages and disadvantages of optical fibre communication system. 6
 (Q) Draw the block diagram of fiber optic communication system and explain the function of each block. 6

EITHER

4. (A) State in brief various types of pulse modulations and explain. 6
 (B) State and explain FDM with the help of suitable diagram. 6

OR

- (P) Explain PCM used in digital communication. 6
 (Q) What is multiplexing ? Explain TDM. 6

EITHER

5. (A) Draw the block diagram of microcomputer and explain the function of each block. 6
 (B) Explain general purpose registers of 8085 μ p. 4
 (C) State the function of \overline{RD} and \overline{WR} pins. 2

OR

- (P) Explain Instruction cycle, Fetch cycle and Execute cycle with suitable waveform. 4