B.C.A. (Part–II) Semester–III (Old) Examination

ELECTRONICS

Paper–3 ST5

Time : Three Hours] [Maximum Marks : 60

Note :— All questions are compulsory.

1. (a) Explain the instruction format of 8085 microprocessor. 6

   (b) Draw a block diagram of microcomputer and explain the function of each block. 6

OR

2. (p) With neat pin diagram explain the various signals of 8085 µp. 6

   (q) Explain the function of different flags of 8085 µp with suitable diagram. 6

3. (a) What is addressing mode ? List the addressing modes of 8085 µp. Explain any two modes with suitable example. 6

   (b) Write an ALP for subtraction of two 8-bit numbers and draw the flow chart. 6

OR

4. (p) Explain the operation of the following instructions with their word size and addressing modes: 6

   (i) MOV A,B

   (ii) RAR

   (iii) STA 8503 H

   (q) Explain Stack and Stack pointer with suitable example. 6

5. (a) Differentiate between memory mapped I/O and I/O mapped I/O scheme. 6

   (b) Explain the BSR control word format of 8255 PPI with suitable example. 6

OR

6. (p) Explain synchronous and asynchronous data transfer schemes. 6

   (q) Draw the block diagram of 8255 PPI and explain the function of each block. 6

7. (a) Explain the flag register of 8086 µp. 6

   (b) Explain the following : 6

   (i) Pointer register

   (ii) Index register

   (iii) Segment register

OR

8. (p) Explain the function of BIU and EU of 8086 μp with suitable diagram. 8

(q) What are the features of 8086 μp ? 4

9. (a) With suitable example explain addressing modes of 8086 μp. 6

(b) Explain the segment register of 8086 μp. 6

OR

10. (p) Write an ALP for addition of two 16-bit numbers and draw the flow chart. 6

(q) Explain the following instructions of 8086 μp : 6

(i) MOV

(ii) LDS

(iii) POP