

B.C.A. (Part—II) Semester—III Examination
3ST5 : ELECTRONICS

Time : Three Hours]

[Maximum Marks : 60

- N.B. :—** (1) All questions are compulsory.
(2) All questions carry equal marks.

1. (a) Draw block diagram of microcomputer system and explain the functions of each block. 6
(b) Explain instruction format of 8085 microprocessor. 6

OR
2. (p) Draw and explain timing diagram of memory read bus cycle. 6
(q) What is Flag ? Explain the functions of different flags of 8085 microprocessor with suitable diagram. 6
3. (a) Write an ALP using 8085 mp for multiplication of two 8 bit numbers and draw flow chart. 6
(b) Explain stack and stack pointer with suitable example. 6

OR
4. (p) Give the classification of instruction set and explain the arithmetic group of instruction with suitable example. 6
(q) What is addressing mode ? List the addressing modes of 8085. Explain any two modes with suitable example. 6
5. (a) Explain synchronous and asynchronous data transfer scheme. 6
(b) Explain control word format in I/O and BSR mode of 8255 PPI with suitable diagram. 6

OR
6. (p) Differentiate between memory mapped I/O and I/O mapped I/O scheme. 6
(q) Draw the block diagram of 8255 PPI and explain the function of each block. 6
7. (a) Explain the status flag of 8086 microprocessor. 6
(b) Explain the following : 6
 (i) Pointer register
 (ii) Index register
 (iii) Segment register.
- OR**
8. (p) Draw and explain pin diagram of 8086 microprocessor. 6
(q) Explain operating modes of 8086 microprocessor. 6
9. (a) Explain various addressing modes of 8086 microprocessor with suitable example. 6
(b) Write ALP for subtraction of two 8-bit numbers and draw flow chart. 6

OR
10. (p) Write ALP using 8086 mp for multiplication of two numbers and draw flow chart. 6
(q) Explain the following instructions : 6
 (i) MOV
 (ii) LDS
 (iii) POP