

AT-439

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

Time : Three Hours]

[Maximum Marks : 60

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

EITHER

1. (A) Draw block diagram of micro computer and explain each block. 6
- (B) Explain instruction cycle, machine cycle and T-State. 3
- (C) Explain the function of following signals of 8085 : 3
 - (i) $\overline{IO/\overline{M}}$
 - (ii) READY
 - (iii) ALE.

OR

2. (P) Draw block diagram of 8085 and explain the function of each block. 6
- (Q) Explain the function of following pins in 8085 : 4
 - (i) $\overline{RD}$
 - (ii) HOLD
 - (iii) RESET
 - (iv) $\overline{INTA}$.
- (R) Draw pin diagram of 8085. 2

EITHER

3. (A) Explain various addressing modes of 8085 with example. 6
- (B) Explain stack operation related to PUSH and POP instruction. 6

OR

4. (P) Define :
 (i) Algorithm
 (ii) Flowchart. 2
- (Q) Write assembly language program for addition of two 8-bit numbers placed at memory location 2500 H and 2501 H. 4
- (R) Classify instructions and explain arithmetic group of instructions with suitable example. 6

EITHER

5. (A) Explain memory mapped I/O and I/O mapped I/O scheme. 6
- (B) Explain different operating modes of 8255 PPI. 6

OR

6. (P) Explain BSR control word format with suitable diagram. 6
- (Q) Draw the block diagram of 8255 PPI and explain the function of each block. 6

EITHER

7. (A) Explain BIU and EU units of 8086. 6
- (B) Draw and explain various flags of 8086 μ p. 6

OR

8. (P) Explain general purpose registers of 8086 μ p. 6
- (Q) Draw the block diagram of 8086 and explain the function of each block. 6

EITHER

9. (A) Write an ALP for multiplication of two numbers for 8086 and draw flowchart. 6
- (B) Explain various addressing modes of 8086 with suitable example. 6

OR

10. (P) Explain logical instruction of 8086 with suitable example. 6
- (Q) Write an ALP for addition of two 16-bit numbers and draw flowchart. 6