

AU-200

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 and explain timing diagram of memory read bus cycle. 6

(B) Explain the function of the following pins :

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|---------------------|----------------------|-------------------------|---|
| (i) $\overline{RD}$ | (ii) $\overline{WR}$ | (iii) $IO/\overline{M}$ | |
| (iv) ALE | (v) READY | (vi) HOLD | 6 |

OR

2. (P) Explain one byte, two byte and three byte instructions with suitable example. 6

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

EITHER

3. (A) Give the classification of instruction set and explain the arithmetic group of instruction with suitable example. 6

(B) Write ALP for subtraction of two 8 bit numbers and draw the flowchart. 6

OR

4. (P) Explain the CALL-RET structures of subroutine with suitable diagram. 6

(Q) Write an ALP for multiplication of two 8-bit numbers and draw flow chart. 6

EITHER

5. (A) Explain the BSR control word format of 8255 PPI with suitable diagram. 6

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

OR

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| 6. | (P) Draw the block diagram of 8253-PPI and explain the function of each block. | 6 |
| | (Q) Explain synchronous and asynchronous data transfer schemes. | 6 |

EITHER

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| 7. | (A) Explain the function BIU and EU with well labelled diagram of 8086. | 8 |
| | (B) Explain the index registers of 8086 μ p. | 4 |

OR

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| 8. | (P) Explain the status flags of 8086 μ p. | 6 |
| | (Q) Explain the operating modes of 8086 μ p. | 6 |

EITHER

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| 9. | (A) Explain MOV, PUSH, POP instruction of 8086 μ p. | 6 |
| | (B) Write ALP for division of two numbers and draw flow chart. | 6 |

OR

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|-----|--|---|
| 10. | (P) Explain various addressing modes of 8086 with suitable example. | 8 |
| | (Q) Write ALP for addition of two 8-bit numbers and draw flow chart. | 4 |