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

| Time: Three Hours] |     | ree Hours] [Maximum M  | [Maximum Marks: 60 |  |
|--------------------|-----|--|--------------------|--|
|                    | EIT | HER  |                    |  |
| 1.                 | (A) | Draw the block diagram of Intel 8085 and explain the working of each block.                                    | 8                  |  |
|                    | (B) | Explain instruction cycle, fetch cycle and execute cycle.  | 4                  |  |
|                    | OR  |  |                    |  |
| 2.                 | (P) | Draw and explain timing diagram of memory write cycle.   | 6                  |  |
|                    | (Q) | Draw the pin diagram of 8085 and explain the function of each pin.   | 6                  |  |
|                    | EIT | HER  |                    |  |
| 3.                 | (A) | Give the classification of Instruction sets of 8085 and explain the logical group of in with suitable example. | struction<br>6     |  |
|                    | (B) | Write ALP for addition of two 8 bit number and draw the flow chart.  | 6                  |  |
|                    | OR  |  |                    |  |
| 4.                 | (P) | Explain various addressing modes of 8085 with suitable example.  | 6                  |  |
|                    | (Q) | What is stack and stack top? Explain PUSH and POP instructions with suitable                                   | diagram.           |  |
|                    |     |  | 6                  |  |
|                    |     | HER  |                    |  |
| 5.                 |     | Explain control word format of 8255 PPI in I/O mode with suitable diagram.                                     | 6                  |  |
|                    |     | Draw the block diagram of 8255 PPI and explain the function of each block.                                     | 6                  |  |
|                    | OR  |  |                    |  |
| 6.                 |     | Explain the various data transfer scheme.  | 6                  |  |
|                    |     | Explain memory mapped I/O and I/O mapped I/O scheme.   | 6                  |  |
| -                  |     | HER  |                    |  |
| 7.                 | ` ′ | Draw the block diagram 8086 and explain the function of BIU and EU.  | 8                  |  |
|                    |     | Explain the segment registers of 8086.   | 4                  |  |
| 0                  | OR  | D. 11. (199.) 20025  |                    |  |
| 8.                 | (P) |  | 4                  |  |
|                    |     | Explain various flags of 8086 μp with suitable diagram.  | 8                  |  |
|                    |     | THER   |                    |  |
| 9.                 | (A) | Explain various addressing modes of 8086 μp with suitable example.   | 8                  |  |
|                    | (B) | Write an ALP for multiplication of two 8-bit number and draw flowchart.  | 4                  |  |
|                    | OR  |  |                    |  |
| 10.                | (P) | Explain arithmetic and logical instructions of 8086 µp.  | 6                  |  |
|                    | (Q) | Write ALP for subtraction of two 16-bit numbers and draw flowchart.  | 6                  |  |