**BCA/D-17**
COMPUTER ARCHITECTURE
Paper: BCA-233

Time:  Three Hours                                    Maximum Marks: 80

Note: Attempt five questions in all, selecting at least one question from each Unit. Q. No.1is compulsory. All questions carry equal marks.
1. (a)    Discuss instruction cycle with its operations.
   (b)    Explain wire bus and memory data transfer.
   (c)    Discuss the structure if instruction format.
   (d)    Explain polling.

### Unit-I

2. Explain various approaches of control unit design and implementation.

3. Design and explain logic circuit for memory read and write operation of a basic computer.

### Unit-II

4. Explain Register Transfer Language (RTL) in detail.

5. What do you mean by micro operation? Describe arithmetic logic and shift micro operations.

### Unit-III

6. Explain various CPU organizations.

7. Describe RISC and CISC architecture.

### Unit-IV

8. Explain the memory hierarchy in terms of their storage and access.

9. Explain program based data transfer techniques.