Long Answer Questions.

Attempt any Two questions: **(2 x 10 = 20)**

1. Differentiate between hardwired and microprogrammed control unit. Describe with example of microprogram sequencer used in microprogrammed control unit.

2. Explain the various types of addressing modes and compare them algorithm, advantages and disadvantages.

3. Explain the non-restoring division algorithm with flow chart, and hardware implementation diagram. Divide 10/3 using restoring division.

Short Answer Questions.

Attempt any Eight questions: **(8 x 5 = 40)**

4. Explain the bus interconnection scheme with diagram.

5. What do you mean by instruction format? Explain with an example.

6. Explain the data transfer instruction with example.

7. Explain the symbolic microinstruction with example.

8. Explain an instruction pipeline with suitable examples.

9. Explain the Booth Multiplication algorithm with example.

10. What are the advantages and disadvantages of direct mapping and associative mapping between cache and main memory?

11. Differentiate between Input-output processor with Direct memory access.

12. Draw a three dimensional hypercube and explain with example.