(3 hours) **Total Marks: 80**

N.B.
1. **Question No. 1 is compulsory**
2. **Attempt any three questions from remaining five questions**
3. **Assume suitable data if necessary and justify the assumptions**
4. **Figures to the right indicate full marks**

Q1	A	Differentiate between Computer organization and computer architecture	05
	B	Draw the flow chart for of Restoring division algorithm	05
	C	Differentiate between Hardwired control unit and Micro programmed control unit	05
	D	Explain IEEE 754 floating point representations.	05
Q2	A	Draw the flow chart Booths algorithm for multiplication and Perform 6 **X** 2	10
	B	Describe the detailed Von-Neumann Model with a neat block diagram	05
	C	Explain Cache coherence	05
Q3	A	Explain the different addressing modes.	10
	B	Define Instruction cycle and draw the state diagram of instruction cycle	05
	C	Explain Bus arbitrations	05
Q4	A	Explain Micro instruction format and write a micro program for the instruction MUL R_1 , R_2	10
	B	Explain Hardwired Control Unit and the various design methods associated with it.	10
Q5	A	Explain various Memory mapping techniques	10
	B	Explain the concept of Locality of reference	05
	C	List & Explain the Characteristics of Memory	05
Q6	A	Explain Flynn's classification.	10
	B	Describe Instruction Pipelining and its hazards.	10

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