[3 hour]   **[75 Marks]**

N.B:

1. Attempt any three questions from each section
2. Answers to the two sections must be written in same answer sheet.
3. Figures to the right indicate full marks.
4. Assume additional data if necessary but state the same clearly.
5. Symbols have their usual meanings and tables have their usual standard design unless stated otherwise.
6. Use of Simple calculators and statistical tables is allowed.

Section I

1	A	Explain briefly with diagram the Multiprocessor Architecture.	6
	B	Write a note on any one: (i) Pipelining (ii) Array Processing vs Systolic processing.	6
2	A	Explain different types of operating systems	6
	B	Write a note on Amdahl's law.	6
3	A	Write a short note on Fortran90, nCubeC	6
	B	Explain Loop dependencies.	6
4	A	Write a short note on distributed Shared Memory.	6
	B	Write a short note on Parallel Reduction.	6
5	A	Explain shared memory parallel program debugging.	6
	B	Outline the algorithm for matrix multiplication on loosely coupled multiprocessors	6

Section II

6	A	What is packet switching? How it is achieved?	6
	B	Write a Short note on traffic sizing.	7
7	A	Explain Time and delay considerations in requirements.	6
	B	Write a short note on X.25.	7
8	A	Explain advantages and disadvantages of Frame Relay.	6
	B	Write a short note on ATM layers.	7
9	A	Explain MAC Sub-layer protocol.	6
	B	Write a short note on SONET.	7
10	A	With neat figures state different backbone topologies.	6
	B	Explain some difficulties encountered in providing interoperable networks.	7

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