Roll No.

EC 9079 – PARALLEL AND DISTRIBUTED PROCESSING

(REGULATIONS 2008)

Duration: 3 Hours   **Max.marks:100**

Answer ALL questions

PART-A (10x2=20 Marks)

1. What is the principle of scalable performance?

2. What is store load forwarding?

3. Define the effective CPI of a computer.

4. What are the advantages of VLIW architecture?

5. Compare RISC and CISC.

6. Compare SIMD and MISD.

7. What is non blocking communication?

8. Define instruction reordering .

9. List out PRAM model variants.

10. What do you mean by multi threading UNIX?

PART-B (5X16=80 Marks)

11. With suitable examples explain the different models available in parallel programming.   (16)

12.(a)With diagram and example explain the address translation mechanisms and the page replacement policies for virtual memory management.   (16)

OR

12.(b) Explain the basic properties of memory hierarchy. Discuss its cost,effective memory access time and main memory hit ratio.   (16)

13.(a)For a four stage pipeline explain about initial collision vector, state transition diagram and forbidden latencies.   (16)

OR

13.(b)Explain briefly static multiprocessing scheduling. Distinguish between control flow and data flow architecture. (16)

14.(a)With examples explain the conditions for parallelism. How is pipelined operation done using hardware score boarding on the CDC 6600 processors? Explain. (16)

OR

14.(b)Explain the Tomasulo's algorithm for dynamic instruction scheduling with an example. Compare hardware and software parallelism. (16)

15.(a) How are files handled in distributed system? Explain. (16)

OR

15.(b)How do you achieve synchronization in distributed system? Explain with diagram the master slave kernels. (16)