NOVEMBER 2023 **57714/CS23A**

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer any TEN questions.

1. What is parallel computing?

2. Mention the scope of distributed computing.

3. Comment on symmetric multiprocessing.

4. Define GPU Co-processor.

5. Compare shared memory and distributed memory.

6. Define decomposition.

7. What is meant by MapReduce in parallel computing?

8. Mention the uses of threads.

9. Why we need multicast communication?

10. What is distributed object based system?

11. What is fault tolerance in distributed system?

12. Mention the middleware in distributed system.

PART B — (5 × 5 = 25 marks)

Answer any FIVE questions.

13. How does parallel computing differ from sequential computing? Explain.

14. Explain concurrency vs parallelism.

15. Write a short note on array processor.

16. Illustrate the performance metrics of parallel system.

17. Differentiate between the scheduling and load balancing.

18. Describe the role of virtualization in distributed system.

19. Interpret the concept of replication in distributed file system.

PART C — (4 × 10 = 40 marks)

Answer any FOUR questions.

20. How does parallelism contribute to improving computational efficiency and speed? Discuss.

21. Draw and explain the pipeline architecture.

22. Explain the concept of Single Instruction and Multiple Data streams and its applications.

23. Write a brief note on stream oriented communication in distributed system.

24. Explain in detail about client server architectural style.

25. Illustrate the concept of web based system and its advantages.

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