**SSESA’s, Science College, Congress Nagar, Nagpur**

**Assignment 2021-22**

**M. Sc. Semester - IV**

**Paper: - IV – Parallel Computing**

1. What is implicit parallelism and explain trends in microprocessor architectures? 2. Describe the communication costs in parallel machines.

3. How works routing mechanisms for interconnection networks

4. Discuss the cache coherence in multiprocessor system.

5. Write notes on principles of parallel algorithm design and explain its preliminaries. 6. What are the characteristics of Tasks and Interactions?

7. What are the methods for containing interaction overheads?

8. Explain All-to-All personalized communication.

9. What is the performance metrics for parallel systems?

10. Explain the scalability of parallel systems.

11. Write the principles of message passing programming.

12. What are the collective communication and computation operations. 13. Explain matrix-vector multiplication.

14. Explain the serial algorithm in FFT.

15. Describe parallel depth-first search.

16. Describe the transpose algorithm in details.

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