

### CLASS ASSIGNMENT -1

DATE OF GIVEN- 14/02/2026

DATE OF SUBMISSION- 19/02/2026

#### Instructions for Submission of Theory Assignment

- All answers must be written **handwritten**.
  - The assignment must be written in the **SGSITS notebook only**.
  - Neatness and proper presentation will be considered for marking.
  - Late **submission is strictly not allowed**.
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- Q1. Explain Circular Queue with advantages over simple queue.
- Q2. Explain Hash Table implementation and analyse its time complexity.
- Q3. What is feasible solution and optimal solution?
- Q4. Explain Strassen's Matrix Multiplication with example and recurrence relation.
- Q5. Write an algorithm to insert\_at\_end and delete\_at\_specific position node in a Linked List.