ST.JOSEPH’S COLLEGE FOR WOMEN (AUTONOMOUS), VISAKHAPATNAM

IV SEMESTER **COMPUTER SCIENCE**  Time: 2Hrs/Week

CS 4654 (2) **OPERATING SYSTEMS LAB USING C** Max.Marks:50

w.e.f.20-21 admitted batch-“20AH” **SYLLABUS**

**COURSE OBJECTIVES:**

To enable the students to:

* Analyze the concept of Process Management and concurrency problem.
* Understand different approaches to memory management.

**COURSE OUTCOMES:**

Upon successful completion of the course, a student will be able to:

* Evaluate the performance of different types of CPU scheduling algorithms
* Compare different page replacement policies.
* Implement file organization techniques.
* Recognize need of Banker’s algorithm for deadlock avoidance

1. Write a program to implement Round Robin CPU Scheduling algorithm

2. Simulate SJF CPU Scheduling algorithm

3. Write a program the FCFS CPU Scheduling algorithm

4. Write a program to Priority CPU Scheduling algorithm

5. Simulate Sequential file allocation strategies

6. Simulate Indexed file allocation strategies

7. Simulate Linked file allocation strategies

8. Simulate MVT and MFT memory management techniques

9. Simulate Single level directory File organization techniques

10. Simulate Two level File organization techniques

11. Simulate Hierarchical File organization techniques

12. Write a program for Bankers Algorithm for Dead Lock Avoidance

13. Implement Bankers Algorithm Dead Lock Prevention.

14. Simulate all Page replacement algorithms.

a) FIFO b) LRU c) LFU

15. Simulate Paging Technique of memory management

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