Semester: 5th			
Paper code: AIDS351/AIML351	**L**	**T/P**	**Credits**
Subject: Operating Systems Lab	**0**	**2**	**1**

Marking Scheme:

1. Teachers Continuous Evaluation: As per university examination norms from time to time
2. End term Examination: As per university examination norms from time to time

INSTRUCTIONS TO EVALUATORS: Maximum Marks: As per university norms

1. This is the practical component of the corresponding theory paper.
2. The practical list shall be notified by the teacher in the first week of the class commencement under the intimation to the office of the HOD/ Institution in which they appear is being offered from the list of practicals below.
3. Instructors can add any other additional experiments over and above the mentioned in the experiment list which they think is important.
4. At least 8 experiments must be performed by the students.

Course Objectives:

1.	To apply the concepts of storage management, process scheduling using programming languages.
2.	To study Several Operating systems and their commands to analyze the memory management, process scheduling concepts.

Course Outcomes:

CO1	Apply the techniques used to implement processes and threads as well as the different algorithms for process scheduling.
CO2	Implement the basic commands of the OS and will execute the various system calls, process synchronization problems using semaphore.

Course Outcomes (CO) to Programme Outcomes (PO) Mapping

(Scale 1: Low, 2: Medium, 3: High)

CO/PO	PO01	PO02	PO03	PO04	PO05	PO06	PO07	PO08	PO09	PO10	PO11	PO12
CO1	2	2	-	1	1	-	-	-	1	1	1	1
CO2	3	2	2	1	1	-	1	-	2	1	2	1

List of Experiments:

1. Write a C program to implement FCFS scheduling algorithm.
2. Write a C program to implement a round robin scheduling algorithm.
3. Implementation of the following Memory Allocation Methods for fixed partition a) First Fit b) Worst Fit c) Best Fit.
4. Write a program to implement reader/writer problems using semaphore.
5. Write a program to implement Banker's algorithm for deadlock avoidance.
6. To study of basic UNIX commands and various UNIX editors such as vi, ed, ex and EMACS

7. Process Management a) fork() b) execv() c) execlp() d) wait() and e) sleep()
    A. Program to implement the fork function using C.
    B. Program to implement execv function using C.
    C. Program to implement execlp function.
    D. Program to implement wait function using C.
    E. Program to implement sleep function using C.
8. To write simple shell programs by using conditional, branching and looping statements.
9. Write a Shell Program to swap the two integers.