**COLLEGE OF APPLIED BUSINESS AND TECHNOLOGY**

**Kathmandu, Nepal**

**Laboratory Assignment Log Sheet of B.SC. CSIT 4th Semester**

**Subject: CSC 359: Operating Systems**

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| **Lab** | **Title** | | **Signature** |
| **1.** | **Demonstration of basic Linux Command.** | |  |
| a. | Navigation |
| b. | File Manipulation |
| c. | To Edit Text (Nano Text Editor) |
| d. | Power, Date & Calender, Help & Sudo |
| e. | Compiling with GCC |
| **2.** | **Process creation,getting an id of a process & use multiple fork.** | |  |
| a. | Creation of single process & display their id. |
| b. | Program getting an id of a process. |
| c. | Use of multiple fork(). |
| **3.** | **Thread creation, Implementation of IPC techniques(strict alternation), process scheduling algorithm, deadlock detection & avoidance algorithm & Page Replacement Algorithm.** | |  |
| a. | Program to create thread. |  |
| b. | Program to demonastrate the solution(strict alternation) for critical region problem. |  |
| c. | Program to simulate First Come First Served(FCFS) scheduling algorithm. |  |
| d. | Program to implement of deadlock detection algorithm. |  |
| e. | Program to implement Deadlock avoidance algorithm (Banker’s Algorithm for Multiple Instances). |  |
| f. | Program to implement FIFO page replacement algorithm. |  |
| **4.** | **Implementation of Disk Scheduling Algorithms** | |  |
| a. | Program to implement FCFS disk scheduling algorithm. |
| b. | Program to implement SSTF disk scheduling algorithm. |
| c. | Program to implement SCAN disk scheduling algorithm. |
| d. | Program to implement CSCAN disk scheduling algorithm. |
| e. | Program to implement LOOK disk scheduling algorithm. |
| f. | Program to implement CLOOK disk scheduling algorithm. |
| **5.** | **Program to implement files by Linked List Allocation.** | |  |