

Operating System Lab- II (LINUX/UNIX lab) (IT- 4006)

Course Code	IT-4006	Credits-2	L –0, T-0, P-2
Name of the Course	Operating System Lab – II (LINUX/UNIX lab)		
Lectures to be Delivered	26 hours of lab work (2hrs each per week)		
Semester End Examination	<i>Max. Marks: 50</i>	<i>Min. Pass Marks: 20</i>	Maximum Time:3hrs
Laboratory Continuous Assessment	Lab work 30%, Lab Record 25%, Viva/ Hands on 25%, Attendance 20%)	<i>Max. Marks: 50</i>	<i>Min. Pass Marks: 25</i>

Instructions for paper setter/ Candidates

Laboratory examination will consist of two parts:

- (i) Performing a practical examination assigned by the examiner (25 marks)
- (ii) Viva-voce examination (25 marks)

Viva-voce examination will be related to the practicals performed / projects executed by the candidate related to the paper during the course of the semester.

1. Study the Linux operating system and implement various commands and shell scripting.
2. Implement the process synchronization using semaphores.
3. Write the programme to mount the various devices (i.e. floppy, CD-Rom etc)
4. Write a programme do the following thing...
 - a) Find the attribute of the file.
 - b) To change the attribute of the file.
 - c) Create the directory.
 - d) Delete the directory.
 - e) Create the file.
 - f) Delete the file.
 - g) Find the size of Hard Disk, RAM, and VRAM, cache.

(Please do not use the system commands to these things).

5. Implement the various scheduling algorithm (preemptive and non-preemptive).
6. Implement the various page replacement algorithms.
7. Simulate the various memory allocation methods....
 - a) Paging.
 - b) Segmentation.
 - c) Virtual memory.
 - d) Paged Segmentation.
 - e) Protection and sharing.
8. Design TSR.
9. Implement various programs for virus and vaccine.