

**END TERM EXAMINATION**  
**FOURTH SEMESTER [MCA] MAY –JUNE 2009**

**Paper Code: MCA-204  
Paper Id-44204**

**Subject: Linux and X windows Programming  
(Batch: 2004-2007)**

**Time : 3 Hours**

**Maximum Marks : 60**

**Attempt any Five questions.**

- Q1. a) Describe the salient features of the file system in Linux  
b) How does UNIX provide file protection?  
c) Why might we want to store LILO or GRUB in a Linux partition instead of master boot record.  
d) How can we get a list of all currently running processes including those that may have been started in the previous session? (4 \* 3 =12)

- Q2. a) Describe the exact format of a ext3 inode.  
b) In addition to what partitions are mounted what information do we get from du.  
c) What information do we need to setup printing to another system using lpd.  
d) How can we use the nice command to increase the priority of a process? (4 \* 3 =12)

- Q3. a) What is the difference between a windowing system and desktops?  
b) How do servers and clients on the Internet differ from servers and clients in the X-Window system  
c) What is the version of the X- Windows system that is on most linux systems regardless of the distribution. (4 \* 3 =12)

- Q4. a) Write a shell script which renames all .txt files as .text files.  
b) Write a shell script which takes a name as parameter and returns the PID(s) of processes with that name. (6+6=12)

- Q5 . Explain the following concepts : (2\* 6=12)
- a) Fork
  - b) Pipe
  - c) Shell
  - d) Inode
  - e) Super Block
  - f) Device Independence

- Q6. Discuss the main differences between UNIX and Linux? How is process management achieved in Linux? (6+6=12)

- Q7. Write an X-windows application to constantly monitor the number of login sessions for a particular user. Display should be updated regularly sat every 10 seconds. Write a program in C using Xlib library functions. (12)