

Roll No. ....

**M. Sc. IT-10 (Master of Science in Information Technology)**  
**Fourth Semester Examination 2012**  
**MIT-4001**  
**Linux Administration**

**Time : 3 Hrs**

**Maximum Marks : 60**

**Note: the question paper has been divided in three sections – A, B and C. Answer the questions as per instructions given in each section.**

**Section-A**  
**(Long Answer's Questions)**

**Answer any two questions. Each question carries 15 marks.                      2 x 15 = 30**

1.     Discuss architecture of Linux Operating System. Differentiate between single user and multi user operating system.
  
2.     Which are three levels of permissions of files and directories in Linux? Explain each of them.
  
3.     Explain services in Linux. How services are selected for startup in Linux? How do we install and uninstall a new package?
  
4.     What is a file system? Explain the steps to mount and unmount the file system manually and automatically. What is a network file system?

**Section-B**  
**(Short Answer's Questions)**

**Answer any four questions. Each question carries 5 marks.                      4 x 5 = 20**

1. List the steps used to create a working multi OS system that include Linux and windows XP.
2. Write the characteristics of **ext2** file system with suitable diagram.
3. Explain the bootstrapping.
4. Differentiate between SetUID and SetGID.
5. Explain quota management in file system
6. What is the purpose of shadow password files?
7. What is init service? Differentiate between inetd and xinetd processes.
8. What is X-windows?

**Section-C**  
**(Objective Type Questions)**

**Answer all questions. Each question carries 01 mark.**

**10 x 1= 10**

**Choose the correct option**

1. What terminology is not used in Linux?
  - a. Shell
  - b. Process
  - c. File
  - d. Folder
2. What do you mean by Linux utilities?
  - a. System Software
  - b. Application Software
  - c. Both
  - d. None
3. Why do we use shell?
  - a. communication media between user and Linux OS
  - b. communication media between user and Hardware
  - c. communication media between user and application
  - d. None
4. What is System Call in Linux?
  - a. Function
  - b. Predefined Function

- c. Properties
  - d. None
5. Why do we use ps command in Linux?
    - a. Generate a list of processes and their attributes
    - b. Generate a list of actions and their attributes
    - c. Generate a list of processor and their attributes
    - d. None
  6. Why do we use kill command?
    - a. Stop the process
    - b. Terminate the process
    - c. Wait the process
    - d. None
  7. Which facilities are provided by the kernel?
    - a. Memory Management
    - b. Process Management
    - c. Interprocess Communication (IPC)
    - d. All
  8. Who developed the Linux?
    - a. Charls Babbage
    - b. Linus Torvalds
    - c. Alan Turing
    - d. None
  9. What is knoppix?
    - a. CD version of the Linux
    - b. Version of the Linux
    - c. Properties of Linux
    - d. None
  10. What are the tasks not done by system administrator?
    - a. starting and stopping Linux
    - b. maintaining the file system
    - c. maintaining the user accounts
    - d. Compilation of program