



UTTARAKHAND OPEN UNIVERSITY, HALDWANI (NAINITAL)

MCA 3rd YEAR 5th SEMESTER ASSIGNMENT

Last Date of Submission: 15 Jan, 2015

Course Title: Linux System Administration

Course Code: MCA20(Elective I)

Year: 2014-15

Maximum Marks: 40 Marks

Section 'A'

Section 'A' contains 08 short answer type questions of 5 marks each. Learners are required to answer 4 questions only. Answers of short answer-type questions must be restricted to 250 words approximately.

1. Explain bootstrapping in Linux.
2. Explain the different directories in Linux.
3. Write a short note on ext3 file system.
4. Why should we upgrade or customize Linux kernel?
5. What is DHCP? Explain.
6. What is sudo? What are its features?
7. What is Dynamic Host Configuration protocol? Write a sample dhcpd.conf file.
8. Write a short note on IP addressing. Explain IP classes.

Section 'B'

Section 'B' contains 04 long answer-type questions of 10 marks each. Learners are required to answer 02 questions only.

1. a. What are the contents of Password files and where are they located?
b. What are the Shadow passwords? Explain.
c. How are groups managed in LINUX?
2. a. What are the various configuration methods of LINUX Kernel? Describe in detail.
b. Answer the following:
 - i. Which bash command displays the current shell?
 - ii. Which Linux shell is the default and common in most distributions of Linux today?
 - iii. Which Linux shells support command history?
 - iv. Which **hashbang** is used in bash scripting?

- v. What is the general convention for naming bash script file extension?
 - vi. Which option can you use with **read** to display a prompt for input?
 - vii. What does “-eq” mean in condition-testing?
 - viii. What does “\$0” contain when working with bash arguments?
 - ix. What do you get when you type “echo \$PS1” at the bash prompt?
 - x. Which command at the bash prompt will display your current bash version?
3. a. What is Apache? Where is the main configuration file located for Apache?
- b. What is Samba?
- c. What is a MTA? Which network protocol is used by MTAs to communicate with each other?
4. a. Which command will display the file/directory ownerships.
- b. Where are the default system configuration files located in Linux.
- c. Where are the default system log files located in Linux.
- d. Which command is used to add multiple users.
- e. Which file contains the Group ID of users.
- f. Which file contains user's Home Directory location.
- g. Which command can be used to temporary disable a user login.
- h. What are Linux processes? Describe their types.
- i. Write a note on Linux file system.
- j. What are the different options for searching files in Linux?
- k. How do you copy, move and rename files in Linux?
- l. What is linking in Linux? Describe its use.
- m. Differentiate between the **more** and **less** commands in Linux.
- n. Illustrate the use of the **head** and the **tail** commands.
- o. What are Linux Init and Runlevels?