2061
B.A./B.Sc. (General) Sixth Semester
Computer Applications
CA-12: Working with Linux

Time allowed: 3 Hours   Max. Marks: 30

NOTE: *Attempt five questions in all, including Question No. IX (Unit-V) which is compulsory and selecting one question each from Unit I -IV.*

x-x-x

UNIT – I

I.   a) What is Linux Kernel? Why it is important for Linux Operating System?

b) What are the environment variables? How environment variables work in Linux?

c) Construct a pipe which will merge contents of files a.txt, b.txt and c.txt, sort them and display the sorted output on the screen page by page   (3x2)

II. a) What are the wild card characters? Explain with the help of suitable examples.

b) How will you display all c files containing word 'main' in the current directory using grep command?

c) What is process management? Explain at least three process management commands with the help of examples.   (3x2)

UNIT - II

III. Explain the following commands with complete syntax. Also explain various options available with each. i) umask ii) chmod iii) mv   (2+2+2)

IV. a) List important directories in the Linux file system and their purpose.

b) Explain the output of ls -1 command.

c) What is the difference between moving a file and copying a file? Give examples of moving files with wildcard characters.   (3x2)

UNIT - III

V.   a) Write a shell script to find the factorial of a given number.

b) List important features of vi-editor?

c) What is the difference between while and until statements. Explain with the help of a shell program.   (3x2)

VI.   a) Write a shell script to find the smallest of three numbers.

b) Discuss case construct with the help of shell script.

c) What commands are used to find a pattern and replace it with another pattern in vi-editor?   (3x2)

UNIT - IV

VII.   As a Linux System Administrator, how do you perform the following?

a) Adding and removing users

b) Mounting and unmounting a file system   (2x3)

VIII.   As a Linux System Administrator, how do you perform the following?

a) Managing disk space

b) Backup and Restore   (2x3)

UNIT - V

IX.   Attempt the following:-

a) What will be the effect of following commands?

i) date > aaa ii) wc -1 < file 1

b) b) What is the function of ping command?

c) How insert mode of vi-editor is used to replacing the existing text?

d) What are the advantages and disadvantages of running a process in the background?

e) What are the various functions performed by the admin related to system security?

f) What is a regular expression?   (6x1)

x-x-x