Roll No…… Total Pages: 3

10449

MCA/D-17

LINUX AND SHELL PROGRAMMING

Paper: MCA-14-53

Time: Three Hours Maximum Marks: 80

Note: Attempt five questions including No. 1 which is compulsory. All questions carry equal marks.

Compulsory Question

1. (a) Discuss the tail and head commands in Linux.

   (b) How and why do you use tee command in Linux?

   (c) How does Linux provide security to its user?

   (d) How the conditions are tested using test command on strings?

   (e) What is the use of dynamic loader?

   (f) Discuss the ifconfig command.

   (g) What is the use of gdb?

   (h) How can the process scheduling priorities be altered?

UNIT-I

2. (a) Discuss the structure of Linux Operating system? Also write various Linux Distributions.

   (b) Discuss the structure of file systems.

   (c)

3. What are system calls and what role do they play in the system? Explain the following file-related system calls using suitable examples.

   (i) writing to files

   (ii) relocating file descriptors

   (iii) unlinking files

   (iv) accessing file status information

(v) Changing permission of files.

UNIT-II

4. (a) What are zombie processes ? How can the zombie and orphan process Managed?

(b) What is dynamic loader? Discuss.

5. What is the purpose of makefile utility in Linux? How this utility can be used To manage large 'C' projects b? Explain with the help of suitable examples.

UNIT-III

6. (a) How can the file permissions for an existing file be changed using chmod Command? Discuss the use of chmod command both in symbolic and Octal notations using examples.

(b) Discuss various networking tools in Linux.

7. Who is a super user in Linux? How can super user status be acquired? List and explain the main privileges (along with the command syntax and Example) that are provided to the super user in Linux

UNIT-IV

8.(a) Discuss various process related commands using suitable example.

(b)Explain the following filters in Linux:

(i) cut .
(ii) paste .
(iii) more.

(C) Differentiate between grep, egrep and fgrep.

9. (a) Discuss various control statements and case statements in shell using example.

(b) How are arguments passed to a function and how is a value returned to it? Explain using example.

(c) What is shell? Discuss various types of shells.