

Third Semester B.E. Degree Examination, Dec.2018/Jan.2019
UNIX and Shell Programming

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing one full question from each module.

Module-1

- 1 a. Explain the UNIX architecture with a neat sketch. (08 Marks)
b. Explain the following commands: i) man-k ii) apropos iii) what is iv) ls-r. (04 Marks)
c. What is the output of the following commands:
i) date + % h ii) date + "% h % m" iii) echo "\$x" iv) cal. (04 Marks)

OR

- 2 a. Explain how to create a user or group. Along with the updations made in /etc/passwd file. (08 Marks)
b. What is the difference between internal and external command give example? (04 Marks)
c. Write a note on file and process. (04 Marks)

Module-2

- 3 a. Explain the parent child relationship UNIX. (08 Marks)
b. Write the output and tree structure for the following commands; assume present working directory is /home /vtu.
mkdir scheme
cd scheme
mkdir 2002/Branch 2006/Branch
cd 2002/Branch
mkdir CSE ECE ME
cd ../../2006/Branch
mkdir CSE ECE ME
cd ../../2002/Branch/ECE
pwd
cd ../../2006/CSE
pwd. (08 Marks)

OR

- 4 a. What is the difference between absolute and relative path? (04 Marks)
b. Explain the output of ls-l command. (04 Marks)
c. Files current permissions are rw - r - xr - - specify chmod expression required to change them for the following:
i) rwxrwxrwx
ii) r - - r - - - -
iii) - - - - -
iv) - - - r - - r - - (08 Marks)

Module-3

- 5 a. Explain the different modes in vi editor. (05 Marks)
b. What is the output of the following commands:
i) `ls [ijk] * .doc`
ii) `ls [a - z] ???? .txt`
iii) `ls foo \ * ? .txt`
iv) `ls . * . *` (08 Marks)
c. Explain the 3 standard UNIX files. (03 Marks)

OR

- 6 a. Write a note on shell variables. (04 Marks)
b. With a suitable example. Explain the grep command and its various options. (08 Marks)
c. Explain the following environmental variables i) SHELL ii) PATH. (04 Marks)

Module-4

- 7 a. What is shell programming? Write a shell program that will do the following tasks in order:
i) Clear the screen ii) Print current directory iii) Display current login users. (08 Marks)
b. Explain the shell features of 'while' and 'for' with syntax. (04 Marks)
c. Explain the following commands: i) umask ii) tail iii) head iv) pr. (04 Marks)

OR

- 8 a. What is the difference between hard link and soft link? (08 Marks)
b. Write a shell script to test file attributes. (08 Marks)

Module-5

- 9 a. Write a Perl program to print numbers that are accepted from keyboard using 'for'. (08 Marks)
b. Explain the mechanism of process creation. (08 Marks)

OR

- 10 a. Explain the process status command with its various options. (08 Marks)
b. Write a Perl program to convert decimal number to binary. (08 Marks)