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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 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)**

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