

Fourth Semester B.E. Degree Examination, Dec.2018/Jan. 2019

UNIX and Shell Programming

Time: 3 hrs.

Max. Marks:100

Note: Answer FIVE full questions, selecting atleast TWO questions from each part.

PART – A

1.
 - a. Explain the structure of UNIX system along with block schematic. (06 Marks)
 - b. Mention any four communication feature commands of UNIX. Discuss each one of them briefly. (10 Marks)
 - c. Explain tee and wc command along with syntax and example. (04 Marks)
2.
 - a. Explain the three modes of VI Editor. (06 Marks)
 - b. Explain parent child relationship between various files in the organization of files in UNIX and give the meaning of two special directories names : the dot(.) and double dot(..). (10 Marks)
 - c. Explain with example the octal way of changing permission to a file. (04 Marks)
3.
 - a. What are times associated with files? Discuss their importance. Hence or otherwise discuss how these times can be changed. (10 Marks)
 - b. Explain following commands with syntax and example : sort, uniq, cut, paste. (10 Marks)
4.
 - a. Explain the mechanism of process creation. (06 Marks)
 - b. Define system variables. Explain the following system variables along with example :
i) PATH ii) HOME iii) SHELL. (08 Marks)
 - c. Answer the following questions :
i) Create 5 empty files empty1, empty2, empty3 empty4 and empty5
ii) List all files in the current directory whose second character is a digit
iii) Combine the contents of file text and matter into another File called textmat
iv) Output of who should be sorted and displayed on the screen along with the total number of users. The same output except the number of users should also be sorted in a file file1. (06 Marks)

PART – B

5.
 - a. What is a grep command? Explain the families at grep command. Explain any four options at grep command with suitable example. (10 Marks)
 - b. You have the following files in your home directory.

file1	file2	file33	file4	f5	f6	f7
Nfile1	Nfile2	Nfile441	file1a	file2a	file2b	

Which of the following would be selected by each of the following pattern :

- | | | | | |
|------------|-------------------|----------------------|------------|-----------|
| i) file? | ii) file?? | iii) file * | iv) Nfile? | v) ?file? |
| vi) ?file* | vii) file [a – z] | viii) file[0–9][0–9] | ix) * | x) ? |
- (10 Marks)

- 6 a. Write a shell script to find out whether a user whose login name passed as parameter is currently logged in or not. If the user is logged in, then send the file hello which is available in the current working directory to his terminal. (05 Marks)
- b. Write a shell script to accept a string as command line and reverse it. (05 Marks)
- c. Write a shell script which reports names and sizes of all files in a directory (directory name should be supplied as argument) whose size exceeds 1000 bytes. The filenames should be printed in descending order of their sizes. The total number of such files should also be reported. (10 Marks)
- 7 a. Explain any four built in variables of awk with examples. (10 Marks)
- b. Explain any four built in functions in awk with example. (10 Marks)
- 8 a. Explain the chop() function in PERL. (04 Marks)
- b. Explain the split() function in PERL. Outline a PERL program to demonstrate the same. (06 Marks)
- c. Explain how array's are handled in PERL. With the help of script illustrate some of the features of PERL arrays. (10 Marks)

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