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10CS44

Fourth Semester B.E. Degree Examination, June/July 2014
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. With a neat diagram, explain the architecture of UNIX operating system. List the features also. (08 Marks)

b. Explain the parent–child relationship of UNIX file system with a diagram. (06 Marks)

c. Explain with examples :
i) Absolute pathname and relative pathname
ii) Internal and external commands. (06 Marks)

2 a. Interpret the significance of seven fields of $ls - \ell$ output. (07 Marks)

b. Briefly explain the different ways of setting file permissions. (07 Marks)

c. With a diagram, explain 3 modes of Vi editor. (06 Marks)

3 a. What are wild cards? Explain the shells wild cards, with examples. (08 Marks)

b. What is a process? Explain the process creation mechanism? Why directory change can't be made in separate process. (08 Marks)

c. Explain the following environment variables, with examples :
i) HOME ii) PATH iii) IFS iv) SHELL. (04 Marks)

4 a. What are hard links and soft link? Explain with examples. (06 Marks)

b. Write a short note on find command. (06 Marks)

c. Explain the following filters with examples :
i) head iii) tail iii) cut. (08 Marks)

PART – B

5 a. Explain grep command with all options. (10 Marks)

b. What is sed? With example, explain line addressing and context addressing. (10 Marks)

6 a. What is shell programming? Write a shell script to create a menu which displays :
i) List of files ii) Contents of a file iii) Process status
iv) Current date v) Clear the screen vi) Current users of system. (10 Marks)

b. Explain shell features of 'for'. With syntax and examples. (10 Marks)

7 a. What is an awk? Explain all the built in variables used by awk. (10 Marks)

b. With syntax and examples, discuss the control flow statements used by awk. (10 Marks)

8 a. Write a Perl script to demonstrate the use of chop function. (06 Marks)

b. Write a Perl script to find the square root of command line arguments. (06 Marks)

c. Explain the string handling functions of Perl with appropriate examples. (08 Marks)

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