USN | | | | | | | | | | |

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 $\ell s - \ell$ 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)**

* * * * *