

--	--	--	--	--	--	--	--	--	--

Third Semester B.E. Degree Examination, Dec. 2013/Jan. 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 relation ship between the Kernel and the shell of UNIX. (07 Marks)
- b. What are internal and external commands in UNIX? Explain any three with examples in each type. (07 Marks)
- c. What is parent - child relationship? With the help of diagram explain the UNIX file system. (06 Marks)
- 2 a. List and explain any four commands which are used for handling ordinary files. (07 Marks)
- b. Explain each column of output `ls -l` command. (07 Marks)
- c. What is editor? Explain the three modes of Vi editor. (06 Marks)
- 3 a. Explain the following : (08 Marks)
 - i) Shell wild cards ii) `/dev/null` and `/dev/tty`.
- b. Define the term process. Explain mechanism of process creation in UNIX. (06 Marks)
- c. Explain any four UNIX environmental variables. (06 Marks)
- 4 a. List and explain the different ways of setting directory permissions. (07 Marks)
- b. Explain the following filters with examples : (07 Marks)
 - i) head ii) tail iii) cut iv) paste.
- c. Explain hardlink and symbolic link, with examples. (06 Marks)

PART – B

- 5 a. Explain the grep, egrep and fgrep. with examples. (07 Marks)
- b. Explain sed command with all options. (07 Marks)
- c. Describe the salient features of UNIX operating system. (06 Marks)
- 6 a. Explain the special parameters used by the shell programming. (07 Marks)
- b. Write an shell script that accepts two file names as arguments, check if the permissions of these files are common permission or different permission. (07 Marks)
- c. Explain the following : i) `expr` ii) `shift` iii) `set` iv) `read`. (06 Marks)
- 7 a. What is awk? List and explain any three built – in functions in awk. (06 Marks)
- b. Write an awk program to print transpose of a given matrix. (07 Marks)
- c. Explain with examples. the simple awk filtering. (07 Marks)
- 8 a. Explain briefly the features offered by PERL. (07 Marks)
- b. Explain `chop()` and `split()` with examples. (07 Marks)
- c. Write a PERL. program to convert an unsigned binary to decimal. (06 Marks)