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**Third Semester B.E. Degree Examination, December 2011**  
**UNIX and Shell Programming**

Time: 3 hrs.

Max. Marks:100

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

**PART - A**

- 1 a. Describe the salient features of UNIX operating system. (08 Marks)
- b. With the help of a diagram, explain the UNIX file system. (06 Marks)
- c. Explain briefly absolute pathname and relative pathnames with examples. (06 Marks)
- 2 a. Which command is used for listing file attributes? Briefly describe the significance of each field of the output. (08 Marks)
- b. What are file permissions? How do you use Chmod to set the permissions in a relative manner? (08 Marks)
- c. Briefly explain S(Substitute) command in ex mode of a Vi editor. (04 Marks)
- 3 a. What are wild cards? Explain the shells wild cards with example. (08 Marks)
- b. Explain the command 'PS'. Discuss different options used by 'PS'. (08 Marks)
- c. What are environment variables? Explain any three. (04 Marks)
- 4 a. What are hard links? Explain 'Ln' command. (06 Marks)
- b. Explain briefly the significance of read, write and execute permission for a directory. (06 Marks)
- c. Explain the sort command. Briefly discuss the important sort options. (08 Marks)

**PART - B**

- 5 a. What is grep? Explain any three options and grep with example. (06 Marks)
- b. What are extended regular expressions? Explain any four ERE set used by grep and egrep. (08 Marks)
- c. Briefly explain the different ways of addressing used in sed, with example. (06 Marks)
- 6 a. Explain the significance of special parameters used by shell. (08 Marks)
- b. How test can be used to test the file permission? Write a shell script to check whether a file has executable permission or not. (06 Marks)
- c. Explain the usage of 'expr' command in shell programming. (06 Marks)
- 7 a. Write the syntax of awk instruction. Explain with example. (06 Marks)
- b. With respect to awk, explain the following with example : i) NR and NF ii) index (10 Marks)
- iii) Split iv) length v) system.
- c. Explain associative arrays in awk. (04 Marks)
- 8 a. Explain the use of chop function in perl programming. Write a perl program which accepts user name and displays it with a greeting message. (08 Marks)
- b. Briefly discuss about lists and arrays in perl. (06 Marks)
- c. Explain the following, with respect to perl i) for each ii) split. (06 Marks)

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