Fourth Semester B.E. Degree Examination, June/July 2013
UNIX and Shell Programming

Time: 3 hrs.   Max. Marks:100

Note: *Answer FIVE full questions, selecting*
at least TWO questions from each part.

PART – A

1. a. With a neat diagram, explain the architecture of unix operating system. **(08 Marks)**
   b. With the help of a neat diagram, explain the parent-child relationship. Explain unix file system. **(06 Marks)**
   c. Explain briefly absolute pathname and relative pathname with examples. **(06 Marks)**

2. a. Give the significance of the seven fields of the "l_s – l" command. **(07 Marks)**
   b. What is file permission? Explain how to use "Chmod" command to set the permissions in a relative manner with an example. **(07 Marks)**
   c. Explain the three different modes in which "V$_i$" editor works. **(06 Marks)**

3. a. Explain the standard input, standard output and standard error with respect to UNIX operating system. **(07 Marks)**
   b. Explain the mechanism of process creation. **(07 Marks)**
   c. What are environment variables? Explain any four. **(06 Marks)**

4. a. Differentiate between hard link and soft link with examples. **(06 Marks)**
   b. Explain "sort" command briefly. Also discuss its important options with examples (any five). **(06 Marks)**
   c. Explain the following commands with example:
      i) head   ii) tr   iii) uniq   iv) find   **(08 Marks)**

PART – B

5. a. Explain 'grep' command with its options. **(08 Marks)**
   b. Explain line addressing and context addressing in "sed" with examples. **(06 Marks)**
   c. What are extended regular expression (ERE)? Explain any four ERE set used by "grep" and "egrep". **(06 Marks)**

6. a. Explain the use of "test" and [ ] to evaluate an expression in shell. **(06 Marks)**
   b. Explain the shell features of "while" and "for" with syntax. **(06 Marks)**
   c. Explain the "expr" command applicable to computation and string functions. **(08 Marks)**

7. a. What is AWK? Explain any three built-in functions in AWK. **(07 Marks)**
   b. Write short notes on operators and expressions in AWK. **(06 Marks)**
   c. Explain built-in variables in AWK. **(07 Marks)**

8. a. List the string handling functions in PERL. Write a program to find number of characters, words as well as to print reverse of a given string. **(08 Marks)**
   b. Explain "chop( )" and "split( )" functions with examples. **(06 Marks)**
   c. Explain file handling in PERL. **(06 Marks)**

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