First Semester MCA Degree Examination, February 2013
Introduction to UNIX

Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions.*

1 a. Explain the following commands with example :
      i) bc   ii) date   iii) comm   iv) cat   v) wc.   **(10 Marks)**
   b. Explain UNIX file system with tree structure diagram.   **(05 Marks)**
   c. Explain absolute and relative pathname with example.   **(05 Marks)**

2 a. What are the three different modes of vi and explain in detail, with diagram. **(10 Marks)**
   b. Explain ls - l in detail.   **(06 Marks)**
   c. Discuss absolute permissions of chmod.   **(04 Marks)**

3 a. Explain standard input, standard output and standard error with respect to UNIX, with example. **(06 Marks)**
   b. Explain the mechanism of process creation and shell creation in detail. **(08 Marks)**
   c. Discuss about nice, at and batch, cron.   **(06 Marks)**

4 a. Explain Hard link and symbolic link in detail.   **(06 Marks)**
   b. Write short notes on Umark and touch command.   **(04 Marks)**
   c. Explain the following commands in detail :
      i) head   ii) tail   iii) cut   iv) sort   v) tr.   **(10 Marks)**

5 a. Discuss grep command with options.   **(08 Marks)**
   b. Explain line addressing, context addressing and text editing commands, with examples in sed. **(12 Marks)**

6 a. Discuss command line arguments, with special positional shell parameters. **(04 Marks)**
   b. Explain i) IF conditional statement, case statement   ii) While and for looping with examples. **(12 Marks)**
   c. What are the privileges of the system administrator?   **(04 Marks)**

7 a. Discuss the built – in variables and built – in functions of an awk script. **(06 Marks)**
   b. Write short notes on the following commands :
      i) export   ii) exec   iii) let   iv) set and shift.   **(08 Marks)**
   c. Write an awk program that folds long lines into 40 columns.   **(06 Marks)**

8 a. Write an awk script to delete duplicated line from text file. The order of original lines must remain unchanged. **(07 Marks)**
   b. Write a shell script that accepts two filenames as argument checks if the permissions for these files are identical and if the permissions are identical, output common permissions and otherwise output each file name followed by its permissions. **(07 Marks)**
   c. Explain du, df, su and tar commands, with examples.   **(06 Marks)**

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