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13MCA14

First Semester MCA Degree Examination, June/July 2016
Introduction to UNIX

Time: 3 hrs. Max. Marks:100

Note: *Answer any FIVE full questions.*

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

1 a. Explain features of UNIX. **(07 Marks)**

b. Explain the following commands :
i) cat ii) date iii) who v) cal. **(08 Marks)**

c. Compare absolute and relative pathnames. **(05 Marks)**

2 a. Explain different categories of files that exist in UNIX. **(06 Marks)**

b. Explain UNIX file system with tree structure diagram. Differentiate between dot(·) and double dot(··). **(10 Marks)**

c. Explain expr and set commands. **(04 Marks)**

3 a. Explain ls–l and ls–d options in detail. **(10 Marks)**

b. What is shell script? Write a shell script that accepts two file names as arguments, checks if the permissions for these files are identical and if the permissions are identical, output common permissions else output each file name followed by its permissions. **(10 Marks)**

4 a. What are the permissions that are associated with UNIX files on their creation? Explain how these permissions can be changed to required values. **(10 Marks)**

b. Explain the following commands with examples :
i) head ii) tail iii) sort iv) uniq v) tr. **(10 Marks)**

5 a. Explain basic regular expression and extended regular expression with example. **(10 Marks)**

b. Explain the grep command, with its options. **(10 Marks)**

6 a. What is awk? Explain built-in variables used in awk, with examples. **(10 Marks)**

b. Explain with example exec, export, cd, eval and let commands. **(10 Marks)**

7 a. Write an awk script to delete duplicated line from a text file. The order of the original lines must remain unchanged. **(06 Marks)**

b. What is sed command? Explain the options of sed command, with suitable examples. **(10 Marks)**

c. Explain the associative array in awk, with an example. **(04 Marks)**

8 a. What is a process? Explain the mechanism of process creation and shell creation in detail. **(10 Marks)**

b. Explain the following commands with examples :
i) su ii) passwd iii) tar iv) cpio v) du. **(10 Marks)**

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