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13MCA14

First Semester MCA Degree Examination, June/July 2015
Introduction to UNIX

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1
 - a. Explain the architecture of UNIX – File system with a neat diagram. (07 Marks)
 - b. Explain parent - child relationship with an example. (05 Marks)
 - c. Define a file? And explain the types of files in UNIX? (08 Marks)

- 2
 - a. Explain absolute path and relative path with examples. (08 Marks)
 - b. Describe the important features of a UNIX – File system. (06 Marks)
 - c. Explain following commands with examples. (06 Marks)
 - i) who ii) cal iii) passwd.

- 3
 - a. Differentiate between hard – link and Soft – link. (06 Marks)
 - b. Explain file - permission in UNIX with examples. (06 Marks)
 - c. Write a shell script to accept a string from a terminal and echo a suitable message if it does not have at least 10 characters using i) case ii) expr (08 Marks)

- 4
 - a. Explain line addressing and context addressing using sed with examples. (06 Marks)
 - b. Define and explain Basic Regular expressions. (06 Marks)
 - c. Explain following commands with examples. (08 Marks)
 - i) head ii) tail iii) sort iv) uniq.

- 5
 - a. Explain the process in UNIX and mechanism of process creation. (06 Marks)
 - b. Discuss the commands cron, at and batch with examples. (06 Marks)
 - c. Describe the administrative privileges of a system administrator. (08 Marks)

- 6
 - a. Write a shell script to find a file with largest size in a given directory and display it. (script should recursively search files within subdirectories also). (10 Marks)
 - b. Explain the following commands : i) cmp ii) comm iii) diff. (06 Marks)
 - c. Explain special parameters used in shell with examples. (04 Marks)

- 7
 - a. Describe any three types of patterns used in sed with examples. (05 Marks)
 - b. Write a awk program using functions to find factorial of a number. (09 Marks)
 - c. State and explain six built in variables in awk with examples. (06 Marks)

- 8
 - a. Explain the following environmental variables : (06 Marks)
 - i) HOME ii) PS1 and PS2 iii) TERM.
 - b. Describe the Looping constructs in shell programming: (06 Marks)
 - i) for ii) while iii) until.
 - c. Write a shell script which reads file name and outputs it's properties. (08 Marks)

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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.