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Srinivas Institute of Technology
Library, Mangalore

10MCA14

First Semester MCA Degree Examination, January 2011

Introduction to UNIX

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions.

- 1
 - a. Explain the architecture of unix, with a neat diagram. (08 Marks)
 - b. Explain the following commands : (08 Marks)
 - i) comm ii) bc iii) od iv) echo.
 - c. Differentiate between the absolute and relative path names, with examples. (04 Marks)

- 2
 - a. Explain the unix file system, with a neat diagram. (10 Marks)
 - b. Explain the different modes of giving permission to file. (04 Marks)
 - c. Mention and discuss the different modes of Vi editor. (06 Marks)

- 3
 - a. What is a wild card? Explain any five, with examples. (10 Marks)
 - b. Explain the three mechanisms of process creation. (04 Marks)
 - c. Explain the following, with respect to a process. (06 Marks)
 - i) kill ii) nice iii) at and batch.

- 4
 - a. Differentiate between the hard links and soft links. (06 Marks)
 - b. Write the syntax for find command. Explain with an example, each option of it. (06 Marks)
 - c. Explain the following commands : (08 Marks)
 - i) cut ii) sort iii) tr iv) uniq.

- 5
 - a. What is sed command? Explain the options of sed command, with suitable examples. (10 Marks)
 - b. Explain the special characters + and ?, with respect to ERE. (04 Marks)
 - c. Explain any six basic regular expressions, with examples. (06 Marks)

- 6
 - a. Write a shell script which accepts valid log-in names as arguments and prints their corresponding home directories. If no arguments are specified, print a suitable error message. (10 Marks)
 - b. Explain the set and shift commands for manipulating the positional parameters. (04 Marks)
 - c. Explain startup and shutdown procedure in unix. (06 Marks)

- 7
 - a. What is awk? Explain the builtt – in variables used by awk. (06 Marks)
 - b. Explain the associative array in awk, with an example. (04 Marks)
 - c. Write an awk script to compute gross salary of an employee. (10 Marks)
 [Note : If basic is ≤ 10000 then HRA = 15% of the basic and DA = 45% of the basic. If basic salary is > 10000 then HRA = 20% of the basic and DA = 50% of the basic.]

- 8
 - a. Explain the following : (06 Marks)
 - i) Export ii) Let iii) Eval.
 - b. Explain : (10 Marks)
 - i) Command substitution ii) Positional parameters iii) U mark
 - iv) Yanking v) /dev/nuu.
 - c. Differentiate between the pipe and pipe tee command, with an example. (04 Marks)

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Important Note : 1. On completing your answer compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification no., appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

