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First Semester MCA Degree Examination, June/July 2013
Introduction to UNIX

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions.

- 1 a. Explain characteristic features of the Unix operating system. (08 Marks)
b. Explain the following commands:
i) who ii) cal iii) bc iv) script (08 Marks)
c. Explain the Unix internal and external commands. (04 Marks)
- 2 a. What are the different types of files in Unix? Explain them briefly. (08 Marks)
b. Explain the following commands:
i) cat ii) cmp iii) wc iv) split (08 Marks)
c. Explain about absolute and relative pathnames with example. (04 Marks)
- 3 a. Explain the 3 modes of vi editor. (06 Marks)
b. Explain *ls -l* with example. (06 Marks)
c. Explain the different modes of giving permissions to file. (04 Marks)
d. How can you change file owner and group owner. (04 Marks)
- 4 a. Explain the steps involved in shell interpretive cycle. (05 Marks)
b. Explain the standard input, standard output and standard error with respect to Unix. (09 Marks)
c. Explain the mechanism of process creation. (06 Marks)
- 5 a. Explain the following environment variables:
i) TERM ii) PATH iii) PS1 (06 Marks)
b. Explain the difference between hardlink and softlink. (06 Marks)
c. Explain the following commands:
i) head ii) cut iii) sort iv) tr (08 Marks)
- 6 a. Write a shell script that displays the message either "Good morning" or "Good afternoon" or "Good evening" depending on the time at which the user logs into the system. (10 Marks)
b. What is sed command? Explain line addressing and context addressing. (06 Marks)
c. How are shell scripts debugged? (04 Marks)
- 7 a. What are the privileges of system administrator? (10 Marks)
b. Write an awk script to find net pay of an employee where DA = 70% of basic, HRA = 10% of basic and net-pay is sum of HRA, DA and basic. (10 Marks)
- 8 a. What is ex mode in Advanced vi? (04 Marks)
b. Explain any 5 awk built-in functions with examples. (10 Marks)
c. Explain the following:
i) Shell function ii) Eval iii) Export (06 Marks)

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