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First Semester MCA Degree Examination, Dec.2015/Jan.2016
Introduction to UNIX

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. Discuss the architecture of UNIX operating system with the help of a neat diagram. (10 Marks)
b. Explain the following commands in UNIX:
i) who ii) script iii) calendar iv) date v) stty (10 Marks)
- 2 a. Mention the different categories of files that exist in UNIX. Discuss each of them. (06 Marks)
b. Explain *ls -l* in detail. (08 Marks)
c. Explain UNIX file system with tree structure diagram. (06 Marks)
- 3 a. How are the shell variables defined, for a given values how they are evaluated? Discuss. (05 Marks)
b. Write a shell script which accepts valid login names as arguments and print their corresponding home directories. If no arguments are specified print an appropriate error message. (08 Marks)
c. Explain *chmod* command in detail. (07 Marks)
- 4 a. Differentiate between hardlink and softlink. (06 Marks)
b. Explain the following commands with examples: i) cut ii) pr iii) tr iv) uniq (10 Marks)
v) paste.
c. Explain the following commands with examples: i) expr ii) sleep and wait. (04 Marks)
- 5 a. Discuss *grep* command with options. (08 Marks)
b. Explain line addressing, context addressing and text editing commands, with example in sed. (12 Marks)
- 6 a. Discuss the built-in variables and built-in functions of an awk script. (08 Marks)
b. Write an awk script to delete duplicated lines from text file. The order of original lines must remain unchanged. (06 Marks)
c. Explain with example, exporting shell variables. (06 Marks)
- 7 a. What are the privileges of the system administrator? (06 Marks)
b. Explain the start up and shut down procedure in UNIX. (08 Marks)
c. Explain internal and external commands and system variables. (06 Marks)
- 8 Write a short note on:
a. Absolute and relative pathnames.
b. User mask.
c. eval.
d. Command history. (20 Marks)

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