USN ☐☐☐☐☐☐☐☐☐☐

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
   v) paste. **(10 Marks)**
   c. Explain the following commands with examples: i) expr   ii) sleep and wait. **(04 Marks)**

5 a. Discus 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)**

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