CBCS Scheme

USN | | | | | | | | | | | 16/17MCA12

First Semester MCA Degree Examination, Dec.2017/Jan.2018
UNIX Programming

Time: 3 hrs. Max. Marks: 80

Note: *Answer FIVE full questions, choosing one full question from each module.*

Module-1

1 a. With a neat diagram, explain the architecture of UNIX operating system. (08 Marks)
   b. Explain calendar, print, echo, bc commands with examples. (08 Marks)

OR

2 a. With syntax, explain different forms of 'if 'statement used in shell. (06 Marks)
   b. Explain the working of for loop with an example. (06 Marks)
   c. Briefly explain here document (<<). (04 Marks)

Module-2

3 a. What is a file? Explain different categories of files. (04 Marks)
   b. Explain absolute and relative pathnames. (06 Marks)
   c. Explain Cp, rm, mv commands. (06 Marks)

OR

4 a. What is 'ls' command? Explain in detail the ls – l command. (08 Marks)
   b. How chmod command can be used in changing absolute and relative permissions? (08 Marks)

Module-3

5 a. With example, explain sort command for r, n, m, u options. (08 Marks)
   b. What is sed? Explain line addressing and context addressing. (08 Marks)

OR

6 a. With example, explain grep command for v, n, w, l options. (08 Marks)
   b. Explain substitution in sed with example. (04 Marks)
   c. Explain tr and uniq command. (04 Marks)

Module-4

7 a. Explain any 4 built in variables used in awk. (06 Marks)
   b. Write an awk script to delete duplicate lines from a text file. The order of the original lines must remain unchanged. (10 Marks)

OR

8 a. Explain any 4 built in functions used in awk.   **(08 Marks)**

    b. Write an awk script to compute gross salary of an employee according to rule given below :
if basic salary < 10000 then
   hra = 15% of basic and DA = 45% of basic
if basic salary ≥ 10000 then
   hra = 20% of basic and DA = 50% of basic   **(08 Marks)**

Module-5

9 a. Who is a super user? Explain privileges of super user?   **(08 Marks)**

    b. What is a process? Explain the mechanism of process creation.   **(08 Marks)**

OR

10 a. Explain at and batch command.   **(06 Marks)**

     b. Why do we use history command? What is the output after executing following command?
        i)   grep http !30:4
        ii)   ! Cp : gs/doc/html
        iii)   ! find : s/pℓ/java
        iv)   echo !$:r   **(10 Marks)**

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