CBCS SCHEME

USN | | | | | | | | | | |

18MCA12

First Semester MCA Degree Examination, June/July 2019

UNIX and Shell Programming

Time: 3 hrs. Max. Marks: 100

Note: Answer any 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. **(10 Marks)**

b. Explain who, uname, date, cal, echo commands with examples. **(10 Marks)**

OR

2 a. With syntax, explain different forms of 'if' statement used in shell. **(06 Marks)**

b. Differentiate while and until loops. Give suitable examples. **(06 Marks)**

c. Write a shell script which accepts valid login names as arguments and print their corresponding home directories. If no arguments are specified, print a suitable error message. **(08 Marks)**

Module-2

3 a. What is a file? Discuss different categories of files. **(06 Marks)**

b. Explain absolute and relative pathnames. **(06 Marks)**

c. Explain pwd, mkdir, rmdir, cd commands with examples. **(08 Marks)**

OR

4 a. What is 'ls' command? Explain in detail the ls –l command. **(10 Marks)**

b. Differentiate hard links and symbolic links with example. **(06 Marks)**

c. Explain chown and chgrp commands. **(04 Marks)**

Module-3

5 a. Explain the following commands:
i) head
ii) tail
iii) paste
iv) sort
v) tr **(10 Marks)**

b. What does sed command do? How sed command be used for line addressing and context addressing? **(10 Marks)**

OR

6 a. With example, explain grep command with its options. **(10 Marks)**

b. Explain substitution in sed with example. **(05 Marks)**

c. Write a short note on IRE. **(05 Marks)**

Module-4

7 a. Explain built-in variables and built-in functions of awk. (10 Marks)

b. Write an awk script to delete duplicate lines from a text file. The order of the original lines must be remain unchanged. (06 Marks)

c. Demonstrate logical and relational operators in awk with suitable examples. (04 Marks)

OR

8 a. Discuss the concept of conditional parameters substitution in shell programs. (10 Marks)

b. Explain with example, how to export shell variables. (06 Marks)

c. Explain eval, exec with examples. (04 Marks)

Module-5

9 a. Who is super user? Explain privileges of super user. (10 Marks)

b. Explain UNIX start up and shut down process. (06 Marks)

c. Write a note on tar command. (04 Marks)

OR

10 a. Differentiate between:

b. At and batch commands

c. Internal and external commands (06 Marks)

What is process? Explain the mechanism of process creation. (06 Marks)

(04 Marks)

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