

CBCS SCHEME

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16/17MCA12

First Semester MCA Degree Examination, Dec.2018/Jan.2019

UNIX Programming

Time: 3 hrs.

Max. Marks: 80

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

Module-1

- 1 a. Explain any four characteristic features of unix operating system. (04 Marks)
b. Explain the UNIX architecture with neat diagram. (06 Marks)
c. Explain the following commands with example: (06 Marks)
(i) date (ii) who (iii) bc

OR

- 2 a. What do you mean by I/O redirection? With the aid of necessary illustration explain how redirection is accomplished in Unix. (08 Marks)
b. What are Command line arguments? With the help of example discuss about positional parameters. (08 Marks)

Module-2

- 3 a. What is Parent-child relationship? Explain the Unix file system with neat diagram. (08 Marks)
b. Explain about absolute and relative paths with suitable examples. (08 Marks)

OR

- 4 a. What is ls? Explain in detail ls -l option. (08 Marks)
b. Explain the following commands with example: (08 Marks)
(i) chmod (ii) chgrp (iii) chown (iv) Umask

Module-3

- 5 a. Write a shell script that accepts filename as argument and display its creation time if file exist and if it does not, send output error message. (06 Marks)
b. Explain the following commands : (10 Marks)
(i) head (ii) tail (iii) sort (iv) uniq (v) tr

OR

- 6 a. What is grep command? Explain the options of grep command with suitable examples. (08 Marks)
b. What is sed command? Explain the following using sed: (08 Marks)
(i) Line addressing
(ii) Context addressing.

Module-4

- 7 a. Explain the built-in variables and built-in functions of Awk script. (08 Marks)
b. Write an Awk script to compute gross salary of an employee accordingly to rule given below. If basic salary is <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)

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

OR

- 8 a. Write a short note on shell functions. (04 Marks)
b. Explain the use of export, eval and exec commands in shell script. (06 Marks)
c. Write an awk script to delete duplicated line from a text file. The order of the original lines must remain unchanged. (06 Marks)

Module-5

- 9 a. What is a process? Explain the process creation mechanism in UNIX. (06 Marks)
b. Write about Unix internal and external commands. (04 Marks)
c. Explain following commands:
(i) PS (ii) nice (iii) at and batch (06 Marks)

OR

- 10 a. Who is super user? What are the duties, responsibilities and privileges? Discuss. (08 Marks)
b. Explain the following environment variables:
(i) PATH (ii) HOME (iii) SHELL (06 Marks)
c. What is command history feature? (02 Marks)
