



Third Semester B.E. Degree Examination, Dec.2019/Jan.2020
UNIX and Shell Programming

Time: 3 hrs.

Max. Marks: 100

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

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.

Module-1

- 1 a. Explain with a figure, the kernel and shell relationship in Unix operating system. (08 Marks)
 b. Explain with suitable example, options and filenames as arguments. (06 Marks)
 c. What is the use of following commands : echo, ls, who (06 Marks)

OR

- 2 a. List and explain the salient features of UNIX operating system. (08 Marks)
 b. List and explain the important sections of man command with suitable example. (06 Marks)
 c. Explain the use of following commands : printf, passwd, cal (06 Marks)

Module-2

- 3 a. What is a file? Explain the three categories of files in UNIX operating system. (08 Marks)
 b. Explain the ls command with all the options. (06 Marks)
 c. Explain the following commands with syntax, option and example : mkdir, rmdir, od mv. (06 Marks)

OR

- 4 a. What is parent child relationship? Explain with a figure, the UNIX file system. (06 Marks)
 b. Explain the use of chmod command to change file permission using both absolute and relative methods. (06 Marks)
 c. Explain the following commands with syntax and example : cat rm cp wc (08 Marks)

Module-3

- 5 a. Explain with a figure, the three mode of Vi editor. (08 Marks)
 b. Explain the various ex mode commands with example. (06 Marks)
 c. Evaluate the following commands and write the output. (06 Marks)
- ls -l | grep "d" > file1
 - grep -v "ZEE" news.txt | wc
 - grep "8 . . . \$" file1
 - grep jai sharma emp.lst
 - grep -c member file1
 - grep ^[3] filename.

OR

- 6 a. What are wild cards? Explain the various shell wild cards with suitable example. (08 Marks)
 b. Explain the grep command with all the options. (06 Marks)
 c. Apply the shell's wild cards and write the output :
 i) [a – z] [1 – 4]*.txt
 ii) *.[!c] [!p] [!p]
 iii) *[0 – 3] [A – Z]
 iv) chap* [!0 – 9]
 v) chap [0 – 1] [0 – 9]
 vi) [A – Z] [a – z] [0 – 9]* (06 Marks)

Module-4

- 7 a. Explain the sort command with options and example. (06 Marks)
 b. Explain the three different forms of if conditional statement. (06 Marks)
 c. Write a menu driven shell script to perform the following operations.
 i) List of Users ii) Files in a directory
 iii) Today's date iv) Count number of files in a directory. (08 Marks)

OR

- 8 a. What is hard link and soft link? Give differences between them. (04 Marks)
 b. Explain the following commands with options and example: head tail cut paste. (08 Marks)
 c. Write a menu driven shell script using case statement to perform all arithmetic operations. (08 Marks)

Module-5

- 9 a. What is a process? Explain the mechanism of process creation. (06 Marks)
 b. Explain the following commands with options and example : ps kill at bg. (08 Marks)
 c. Write a perl script to check whether the given year is a leap or not. (06 Marks)

OR

- 10 a. Explain string handling functions in perl. (08 Marks)
 b. Explain with example, how the variables are defined and initialized in perl. (06 Marks)
 c. Write a perl script to convert the given decimal number into its equivalent binary number. (06 Marks)

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