

Third Semester B.E. Degree Examination, June/July 2019
UNIX and Shell Programming

Time: 3 hrs

Max Marks: 80

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. (08 Marks)
b. Describe the salient features of UNIX operating system. (08 Marks)

QR

Module-2

- 3 a. Explain the different types of files supported in UNIX. (06 Marks)
b. What is parent-child relationship? With the help of neat diagram, explain UNIX file system tree. (06 Marks)
c. With suitable example, bring out the difference between absolute and relative pathnames. (04 Marks)

OR

- 4 a. Briefly describe the significance of the seven fields of the 'ls -l' command. (08 Marks)
b. File current permissions are rw____w_r_____. Write chmod expression required to change them for the following:
(i) r____r____x (ii) r w x r w x____x (iii) r_x r_x r_x (iv) r w x r w x r_____ using both relative and absolute methods of assigning permissions. (08 Marks)

Module-3

- 5 a. What are the different modes of operations in Vi editor? Explain with a suitable diagram. (08 Marks)

b. Write the output for the following UNIX commands:

 - i) mv * ..//bin
 - ii) cp ?????? progs
 - iii) lp note[0-1][0-9]
 - iv) rm *.[!f][!o][!g]

c. Explain concept of Escaping and Quoting with suitable example. (04 Marks)

OR

- 6 a. What are the three standard files in UNIX? (06 Marks)
b. Explain ‘grep’ command with its options. (06 Marks)
c. Write the output of the following:
i) sed ‘3q’ abc
ii) ls -l | grep ‘^d’ > directories
iii) sed -n ‘\$p’ abc
iv) sed -n ‘3, \$!p’ abc (04 Marks)

Module-4

- 7 a. Explain the following environment variables with example each:
i) SHELL ii) LOGNAME iii) PATH iv) PS1 (04 Marks)
b. Explain sort command with options. (08 Marks)
c. What are hard link and symbolic links? (04 Marks)

OR

- 8 a. Explain special parameters used by the shell. (08 Marks)
b. Write a menu driven shell script to display list of files, process of user, today's date and users of the system. (08 Marks)

Module-5

- 9 a. Explain the mechanism of process creation using system in UNIX. (06 Marks)
b. Explain here document (<>) with an example. Also mention its use. (04 Marks)
c. Explain the following commands with example: (i) kill (ii) bg (iii) fg (06 Marks)

OR

- 10 a. Explain split and join functions with example. (04 Marks)
b. How is file managed in perl? Explain with an example. (04 Marks)
c. Using command line arguments, write a Perl program to find whether a given year is leap. (06 Marks)

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