

**UNIX & SHELL PROGRAMMING**

(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 70

**PART – A**

(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- Discuss about various modes of vi editor.
  - Write syntax for changing ownership and group name on a given file/s.
  - What is a job? How can we suspend the foreground job?
  - Describe usage of cp and mv commands.
  - Write about the importance of talk command in Unix.
  - What is repetition operator? Describe it.
  - List out features of Born shell.
  - How to debug a shell script?
  - Write about process utilities in Unix.
  - In C shell, how positional parameters are changed?

**PART – B**

(Answer all five units, 5 X 10 = 50 Marks)

**UNIT – I**

- 2 (a) Explain the structure of UNIX operating system with the help of neat diagram.  
 (b) How to change permissions of a file? Explain with example.

**OR**

- 3 (a) Describe sticky bit to achieve protection for a directory. Also write the steps to set the sticky bit.  
 (b) What is meant by security? Explain the different levels of security provided by UNIX.

**UNIT – II**

- 4 (a) Describe filters and pipes in Linux. Write a shell script to count the numbers of characters in a file.  
 (b) What are the possible redirection operators? Give an example for each.

**OR**

- 5 (a) What are the different ways that are available to compare the files? Explain them.  
 (b) Write a shell script to count number of words and lines present in each file of a given directory.

**UNIT – III**

- 6 (a) Explain grep family utility with one example for each.  
 (b) Write the differences between sed and awk.

**OR**

- 7 Which utility is used to transfer file from client to server or server to client? Explain it with a neat diagram.

**UNIT – IV**

- 8 (a) Write about both input and output statements used in korn shell.  
 (b) Write a shell to demonstrate usage of control flow statements.

**OR**

- 9 (a) Write a shell script to simulate cat and copy commands.  
 (b) Explain the different types of addresses supported by sed.

**UNIT – V**

- 10 (a) Discuss how 'eval' command is executed with example.  
 (b) Write a shell script to reverse any given number

**OR**

- 11 (a) Write a C shell script to print the multiplication table upto the given number.  
 (b) Write a shell script to display various file attributes corresponding to it.

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