

B.Tech III Year I Semester (R13) Regular Examinations December 2015

**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)
- (a) Distinguish between time – sharing and client/server environment.
  - (b) Name the two categories of regular files. Does UNIX recognize the difference between these two categories? Explain your answer.
  - (c) Compare and contrast the **cmp** command with the **comm** Command
  - (d) If your login shell is korn shell, can you create another korn shell as the child shell? What file descriptor designates the standard input stream, standard output stream and the standard error stream?
  - (e) Define a regular expression? Compare and contrast it with a mathematical expression.
  - (f) Define global command in vi? Which command is applied on the text object?
  - (g) What is command substitution? What is the token for command substitution in the korn shell?
  - (h) Use **awk** command and check its exit status. When is the result zero? When is the result nonzero? Check both cases.
  - (i) What are the two purposes of the C shell? How do you exit from a child shell and return to the parent shell?
  - (j) Can we use goto statement in the C shell? Can a 'Foreach' loop be executed infinitely? Show an example.

**PART – B**

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

**UNIT – I**

- 2 (a) Describe in detail about the structure of UNIX.  
(b) Summarize the permission rules. Explain it by using directory level permissions.

**OR**

- 3 (a) What is a path? Explain different type's paths to locate a file in UNIX system.  
(b) What is the relationship of a file name to its inode? Is the relationship one-to-one, one – to – many or many – to – many? Explain your answer with an example.

**UNIT – II**

- 4 (a) Identify and explain the different states of a job.  
(b) Explain the role of tr command in shell programming.

**OR**

- 5 (a) Distinguish between a backslash, a pair of double quotes and a pair of single quotes. Explain with example.  
(b) What is piping? What is pipe operator? Explain with example.

**UNIT – III**

- 6 (a) What is talk command? For what purpose we are using it. Explain in detail  
(b) Describe about the domain address.

**OR**

- 7 What is meant by grep? What are the limitations of it? Explain in detail about the grep family.

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**UNIT – IV**

8 What is a shell? Give brief description about the features of korn shell.

**OR**

9 Which statement is used as multiway selection in shell? With the help of syntax and flow chart explain it in detail. Write a program to demonstrate the same.

**UNIT – V**

10 (a) If your current shell is C, what would be displayed from each of the following command?

(i) set a = 44 ; echo a; echo \$a

(ii) set a = 44 ; echo \$aa; echo a\$a

(iii) set a= 44 ; echo "\$a"a ; echo \$a\$a

(b) What is quoting? Give brief description about the different types of quoting.

**OR**

11 (a) Write short notes on awk scripts.

(b) Give brief description about the awk expressions.

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