



SB-1502

Third Year B. C. A. (Sem. V) Examination

March / April – 2011

Paper - 502 : Unix & Shell Programming

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

नीचे दर्शाविए निशानीवाणी विगतो उत्तरवही पर अवश्य कभवी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
T. Y. B. C. A. (Sem. 5)

Name of the Subject :
Paper - 502 : Unix & Shell Programming

Subject Code No. : 1 5 0 2 Section No. (1, 2,.....) : Nil

Seat No. : [] [] [] [] [] [] [] [] [] []

Student's Signature

(2) Figures on the **right** indicate marks.

(3) Take assumption whenever **necessary**.

1 Answer the following questions : (any **fourteen**) **14**

- (i) What is shell ?
- (ii) Explain fork () system call.
- (iii) What are the process states in Unix ?
- (iv) What is difference between 'cmp' and 'diff' command ?
- (v) What is difference between 'cat' and 'more' command ?
- (vi) What will the \$echo* command do ?
- (vii) State the purpose of -n option with sed.
- (viii) Explain the purpose of sticky bit.
- (ix) Which command is used to update time of a file ?
- (x) List the function of Kernal.
- (xi) Explain the significance of 'tee' command.
- (xii) What is difference between 'grep' and 'fgrep' command ?
- (xiii) What does/etc directory contain ?
- (xiv) What is the difference between cat test and cat > test ?
- (xv) What is the purpose of . and .. ?
- (xvi) What is the use of 'chmod' command ?

2 (a) How can you use 'egrep' and 'fgrep' to take pattern **5**

from a file ? Give an example of each.

(b) Explain in brief I-node block. **5**

(c) Explain 'mail' command. **4**

OR

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[Contd...

- 2 (a) What is regular expression ? Explain any one utility which use regular expression, with proper example. 5
(b) Define a shell. Explain meta character that shell use to match file names. 4
(c) Explain vi editor in brief. 5
- 3 (a) Write a script to check whether an entered number is palindrome or not. 4
(b) Write a script to check entered two strings are equal or different, also check the length of both strings are greater than 0. 4
(c) Explain sort command with its options. Give example of each. 4
(d) Explain pipe. Give example. 2

OR

- 3 (a) Answer the following : (any seven) 14
(i) Explain nice.
(ii) What is significance of 'sleep' and 'wait' command.
(iii) Explain purpose of /bin directory.
(iv) Explain 'cut' and 'paste' command.
(v) Explain 'tr' command with example.
(vi) Give suitable example for 'while loop'.
(vii) List editing command for vi editor.
(viii) What do you mean by internal and external command in Unix ?
(ix) What is super block consist of ?
- 4 (a) Write a command for the following : (any eight) 8
(i) To display total number of words and lines of files for which file name starts with 'm'.
(ii) To remove all leading space from a file f1.
(iii) To display line number before each line.
(iv) To display line 10 to 20 from file f1.
(v) To remove directory tree dir1/dir2/dir3 using single command.
(vi) To move all files begin with digit from the parent directory to the current directory.
(vii) To convert decimal number 192 to hexadecimal.
(viii) To give read and write permission to file f1.
(ix) To change modification time of a file f1 to Dec. 01 10:30 am
(x) To display all unique words of file f1.
- (b) Answer the following : (any six) 6
(i) Which attribute change, when you copy a file from another user account ?

- (ii) Which process creates getty process ? What is the responsibility of getty process ?
- (iii) List disadvantages of vi editor.
- (iv) Why 'file' command is used ?
- (v) Why 'test' command is used ?
- (vi) What is output of tail -20 file 1 ?
- (vii) What is significance of fsck utility ?
- (viii) Write a command to display all words in file 1 that begin with digit.

- 5 (a) Answer the following questions : (any **three**) 6
- (i) Explain matching operators of awk utility with example.
 - (ii) Explain delete and write operator of sed.
 - (iii) Explain concept of array in awk.
 - (iv) Explain remembered pattern of sed.

OR

- (a) Write a script using awk utility to create two 3*3 matrix and multiply it. 6
- (b) Answer the following :
- (1) Write a command using awk : (any **two**) 4
- (i) To count number of occurrence of pattern 'bca' in file f1.
 - (ii) To print words whose length is greater than 4 characters and consist digit only.
 - (iii) To print even number of words in each line.
- (2) Write a command using grep or sed or awk : 4
(any **four**)
- (i) To display all lines that contains pattern 'bc*' in a line.
 - (ii) To locate lines where second and second last character of file f1 are same.
 - (iii) To replace 'tybca' with 'TYBCA' in inputfile 'in.sh' and write those lines to output file 'out.sh'.
 - (iv) To replace all occurrence of 'she' with 'he' and 'hi' with 'hello'.
 - (v) To locate lines that begin and end with. (dot).
 - (vi) To display line 5 to 15, 25 to 35 and last line of file f1.