



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 दशावलि निशानीवाणी विगतो उत्तरवडी पर अवश्य लभवी.
 Fillup strictly the details of signs on your answer book.

Name of the Examination :

Name of the Subject :

Subject Code No. : Section No. (1, 2,.....) :

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 from a file ? Give an example of each. 5
- (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.