



SB-3842

**B. Sc. (I. T) (Sem. VI) Examination**  
**March / April – 2011**  
**Linux Administration & Shell Programming**

Time : 3 Hours]

[Total Marks :70

**Instructions :**

(1)

नीचे दशांशवैल निशानीवाणी विगतो उत्तरवडी पर अवश्य लभवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="B. SC. (I. T) (SEM. 6)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="LINUX ADMINISTRATION &amp; SHELL PROGRAMMING"/>	<input type="text"/>
Subject Code No. : <input type="text" value="3"/> <input type="text" value="8"/> <input type="text" value="4"/> <input type="text" value="2"/>	<input type="text"/>
Section No. (1, 2,.....) : <input type="text" value="Nil"/>	
Student's Signature	

(2) Draw the figure and give example wherever necessary.

1 Attempt any **three** :

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- (a) Explain the following commands with options.
  - (i) shutdown
  - (ii) chown
  - (iii) cut
- (b) Explain Linux Loader. How to install the ubuntu flavour of Linux ? Explain various steps of installation process ? How it is different than windows installation ?
- (c) What is an inode table ? How inode is accessed ? Represent the structure of inode of accessing file with 100 MB size.
- (d) Everything is a file in Unix. Justify. Explain different types of files in Unix.

- 2** Answer the following questions (any six) **18**
- (a) Explain the command of giving write permission to file 6thsem for the owner.
  - (b) What is the use of input redirection ? Explain with example.
  - (c) Which command is used to remove lines beginning with capital letter and ends with number ?
  - (d) Which process is created after the Linux Kernel running in memory. What are the duties, of this process ?
  - (e) CAT command will always create new file. Justify.
  - (f) Explain command for extracting first world delimited by \* of the file 6thunix.
  - (g) Explain all the columns of Is - l command.
- 3** Answer the following questions (any six) **18**
- (a) How to declare variable in shell ? Explain the export statement.
  - (b) Write the grep filter for extracting the names ending with "ti" from file student.
  - (c) What are the different run levels in Linux ?
  - (d) What is the use of NF, NR, FILENAME of awk.
  - (e) Write the command to append contents of file2 to file1.
  - (f) What is the use of test in checking various condition.
  - (g) What this command will returns : 724 unix1 and 624 unix2.

4 Answer any **four** questions :

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(a) How the Linux operating system is evolved ? Give the brief history of Unix OS.

(b) Write the shell script to print following pattern

```
1
2 2
3 3 3
```

(c) Write an awk program to display student name and marks of various subjects from the student file, check marks of 1st subject should be greater than 70.

(d) What is shell ? How many different shells are there ?

(e) Explain the user creation and package management task in Linux. What is the use of get-apt install.

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