

(b) What does the following script do:-

```
#!/bin/sh
While who |grep -s $1 >/dev/null
do
sleep 60
done
echo "$1 has logged out"
```

**OR**

- Q.5 (a) Write a shell script that checks whether a given file exists. If so, copy the file to another name that is the original name + the .backup extension. [8]
- (b) Write a shell script that checks whether a given file exists. If so, compress the file via the 'gzip' command, otherwise show an error message. [8]

<b>3E1655</b>	Roll No. _____ <b>3E1655</b> <b>B. Tech III Sem. (Main/Back) Exam. Jan. 2016</b> <b>Computer Science &amp; Engineering</b> <b>3CS4A Linux Shell Programming</b> <b>CS, IT</b>	Total No of Pages: <b>4</b>
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**Time: 3 Hours**

**Maximum Marks: 80**  
**Min. Passing Marks: 26**

*Instructions to Candidates:*

*Attempt any five questions, selecting one question from each unit. All questions carry equal marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly.*

*Units of quantities used/calculated must be stated clearly.*

*Use of following supporting material is permitted during examination. (Mentioned in form No. 205)*

1. NIL \_\_\_\_\_
2. NIL \_\_\_\_\_

**UNIT-I**

Q.1 Write command for the following queries. [8x2=16]

- (a) List all files in a directory
- (b) List all files having a ".txt" extension
- (c) List all files in a directory including their size, date and permissions
- (d) Copy "fileA" to "fileB"
- (e) Rename "fileA" to "fileB"
- (f) Delete "fileA"
- (g) Delete all files in a directory and all its subdirectories
- (h) Search for a "RTU" in a file named "DATABASE"

OR

Q.1 (a) How do you set the permissions of a file so that [2x4=8]

- (i) everyone can read a file but only the owner can write to?
  - (ii) everyone can write to a file but only the owner can write to?
- (b) Explain the following commands with suitable example. [4x2=8]

- (i) Whatis
- (ii) Who
- (iii) Sort
- (iv) Finger

UNIT-II

Q.2 (a) What are links and symbolic links in UNIX file system? [6]

(b) Explain the basic forms of each loop. [6]

(c) What is 'inode'? [4]

OR

Q.2 (a) Explain the following operations in a file with suitable example. [5x2=10]

- (i) Creation
- (ii) Insertion, deletion
- (iii) Searching
- (iv) Substitution
- (v) Reading & writing files

(b) Explain the following commands. [3x2=6]

- (i) yank
- (ii) put
- (iii) delete

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UNIT-III

Q.3 (a) Explain the x-windows client server architecture. [10]

(b) Explain the remote computing and customization of X work environment. [6]

OR

Q.3 (a) Write a function in C to create a connection between the X client and X server. [8]

(b) Discuss event handling in X-Windows. Explain keyboard and mouse management. [8]

UNIT-IV

Q.4 (a) What is a "shell"? Name at least three different ones (shells) and briefly their difference. [8]

(b) Explain the following terms in shell:- [4x2=8]

- (i) pipe
- (ii) filters
- (iii) redirection operators
- (iv) keywords

OR

Q.4 (a) How do you execute a shell script - name at least three different methods. [8]

(b) What is shown by STDOUT & STDERR at start of process execution? [4]

(c) How do you create special files like named pipes and device files? [4]

UNIT-V

Q.5 (a) Write a program that checks if any of a list of users given on the command line is logged in. For each user it should say whether he/she is logged in or not. [10]

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