



**DHARMSINH DESAI UNIVERSITY, NADIAD**  
**FACULTY OF TECHNOLOGY**  
**B.TECH. SEMESTER I [IT/CE]**

**SUBJECT: (CT-115) LINUX OPERATING SYSTEM AND PROGRAMMING**

<b>Examination</b> : Block Exam	<b>Seat No.</b> : _____
<b>Date</b> : 23/12/2014	<b>Day</b> : Tuesday
<b>Time</b> : 11:00 to 12:15	<b>Max. Marks</b> : 36

**INSTRUCTIONS:**

1. Figures to the right indicate maximum marks for that question.
2. The symbols used carry their usual meanings.
3. Assume suitable data, if required & mention them clearly.
4. Draw neat sketches wherever necessary.

**Q.1 Answer the Following :** [12]

- (A) Provide the output of following command [2]
- (i) !5
- (ii) grep -i DDU a.txt
- (B) What do you mean by HOME directory of particular user? Which of the following is not a right way to get into the current user's home directory? [2]
- (a) cd - (b) cd ~ (c) cd \$HOME (d) cd
- (C) Assume that file a.txt contains 20 lines. Using VI editor commands, copy from current line up to line 17 in file b.txt. [2]
- (D) Explain the working of the following command :- (cal;ls) | wc >> f1 [1]
- (E) Explain the use of /dev/null [2]
- (F) Convert the following number from Decimal to Octal Number System using bc. [2]
- Number:-14
- (G) What is the difference between cmp f1 f2 and cmp -b f1 f2? [1]

**Q.2 Answer the following.** [12]

- (A) Using grep/sed filters, how can I count the frequency of occurrence of the word Hello in my file? [4]
- (B) Design a shell script to print the following pattern: [4]
- ```

1
 2 2
 3 3 3
 4 4 4 4
 5 5 5 5 5
```
- (C) Give commands to [4]
- (i) display (iii) remove
- (ii) move (iv) find the size
- for the content of current directory. Give proper command line for each.

**OR**

- (C) (i) \$ od -bc file1 (iii) \$ alias df='diff f1 f2' [4]
- (ii) \$ cmp -c f1 f2 (iv) \$ tput clear

**Q.3 Answer the following:** [12]

- (A) Write a shell script to find sum of digits of a number entered by user. [6]
- (B) Use find command to [3]
- (a) locate all files having extension .txt in your /home/student directory
- (b) remove all files having extension .c in your home/student directory.
- (C) Explain output of ls -l in detail with example. [3]

**OR**

**Q.3 Answer the following:** [12]

- (A) Explain ERE,TRE and IRE with suitable example [6]
- (B) Write a shell script which will find total of five numbers using for. Script must be interactive. [3]
- (C) Explain comm and diff command. What are the main differences between them? [3]