DHARMSINH DESAI UNIVERSITY, NADIAD
FACULTY OF TECHNOLOGY
B.TECH. SEMESTER I [IT/CE/MECH]
SUBJECT: (CT-115) LINUX OPERATING SYSTEM AND PROGRAMMING

Examination	**: Block Exam**	**Seat No.**	**: _____**
Date	**: 29/11/2013**	**Day**	**: Friday**
Time	**: 11:30 to 12:45**	**Max. Marks**	**: 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) Give the figure of a sample directory structure in Linux. **[2]**

(B) Explain Inode & Inode Number. **[2]**

(C) Explain the meaning of the instruction:4c4,5 with respect to diff command. **[2]**

(D) What is the difference between an argument and an option? **[1]**

(E) Give Examples of the following BRE Expression: **[2]**
(1) "**.*"
(2) "^*.."

(F) If I change the permissions of a file, which file time would be affected? **[1]**
(a) Last Modification Time (b) Last Access Time (c) Both (d) None

(G) Is it possible to create a hard link of a directory? Explain with proper reason. **[2]**

Q.2 Answer the following. (any three) **[12]**

(A) Write a shell script to find a number is magic number or not. Use command line argument. **[4]**

(B) Explain file permission with respect to a directory and a File. **[4]**

(C) (1) Explain uniq command with example. **[4]**
(2) What is the difference between while and until loop?

(D) Write a shell script to design the following pattern: **[4]**

```
    A
  B B
 C C C
D D D D
E E E E E
```

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

(A) Explain "comm." Command with proper example **[4]**

(B) Explain ERE in detail with example. **[4]**

(C) Write a shell script which takes any date as an input from the user. Find out the difference with respect to today's date. (format of a date should be in DD/MM/YYYY) **[4]**

OR

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

(A) Explain "grep." Command with all its options and proper examples. **[4]**

(B) Explain TRE in detail with example. **[4]**

(C) Write a shell script to find the following: **[4]**
Sum= 1! + 2! + 3! + 4! +……..+ n!, where value of n is entered by user.