



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

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

Examination : First Sessional Seat No. : _____
Date : 23/08/2013 Day : Friday
Time : 3:45 to 5:00 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) What this command line will do `cd ~` ? [1]
(B) If the file 'maths.txt' contains this data 50/3 then `bc maths.txt` gives what? . [1]
(C) Which are the fields of 'who' command? [1]
(D) What is the difference between an argument and an option? [1]
(E) What will be the output for following command lines: [2]
(1) `echo " Path is $PATH "`
(2) `echo ' Path is $PATH '`
(F) What you mean by an Open Source System? Give some example for open source software. [2]
(G) Define the terms 'Internal command' and ' External command'? [2]
(H) What is the use of '>' symbol? What the following command line indicates: [2]
`man -k date > date`

Q.2 Answer the following. [12]

- (A) Explain cat command and all its functionality. [4]
(B) Discuss the File system of UNIX operating system. [4]
(C) (1) What GNU stands for? [4]
(2) Explain the working of `ls` command in detail with example.
OR
(C) (1) What is the difference between i-node and i-number? [4]
(2) Explain the working of `wc` command in detail with example.

Q.3 Answer the following: [12]

- (A) Explain the UNIX architecture. [4]
(B) Give output for following command lines: [3]
(1) `ls -ai`
(2) `more -3 data.txt` (Note: data.txt contains data)
(3) `printf "Hel\blo"`
(C) Consider the data of following two files "Data1.txt" and "Data2.txt". [5]

Data1.txt	Data2.txt
A D Patel Institute	Birla Vishvakarma Mahavidhyalaya
Birla Vishvakarma Mahavidhyalaya Dharmsinh	Dharmsinh Desai University
Desai University	M S University
G H Patel	Parul Institute of Technology
L J Institute	Sigma Institute
Parul Institute of Technology	

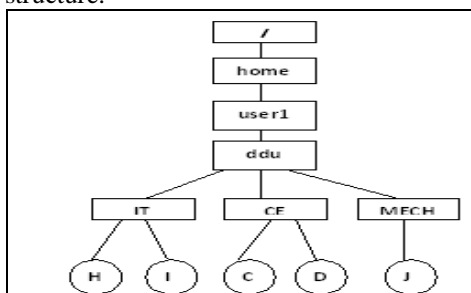
Give output for following command lines based on this data:

- (1) `cmp -c Data1.txt Data2.txt`
(2) `comm. -2 Data1.txt Data2.txt`
(3) `diff Data1.txt Data2.txt`
(4) `diff Data2.txt Data1.txt`

OR

Q.3 Answer the following: [12]

- (A) Explain the features of UNIX operating system. [4]
(B) Give output for following command lines: [3]
(1) `cal -3 5 2010`
(2) `less +5 data.txt` (Note: data.txt contains data)
(3) `date +"%D %t %T"`
(C) Consider the following tree structure. [5]



Based on this, provide the command lines for following:

- (1) Assume that your working directory is home. Copy the file H to CE.(use absolute way)
(2) Assume that your working directory is IT. Remove the file C and D . (use relative way)
(3) You are at ddu, copy the structure MECH and save as MECH2.
(4) If your current directory is IT then what this command line will provide as output:
`mv H I File`