**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**P.O. Box 972-60200 – Meru-Kenya.**

 **Tel: 020-2069349, 061-2309217. 064-30320 Cell phone: +254 712524293, +254 789151411**

**Fax: 064-30321**

**Website:** [**www.must.ac.ke**](http://www.must.ac.ke) **Email:** **info@must.ac.ke**

**University Examinations 2015/2016**

SECONDYEAR, SECOND SEMESTER EXAMINATION FOR THE DIPLOMA IN INFORMATION TECHNOLOGY

**CIT 2282: OPERATING SYSTEM I**

**DATE: NOVEMBER 2015 TIME: 11/2 HOURS**

**INSTRUCTIONS:** *Answer question* ***one*** *and any other* ***two*** *questions*

**QUESTION ONE (30 MARKS)**

1. Define an operating system (2 Marks)
2. Giving examples differentiate between input redirection and output redirection (4 Marks)
3. Convert the following using symbolic and Numeric mode (4 Marks)
4. d r w x r - - - - - policy
5. d r – x - - - - - x class
6. - - - - r - - r - x stage
7. – r w- r - x r w - introduction
8. Use the directory tree diagram to answer the following questions. Assume **must** is your working directory write relative pathname to the following directories. (6 Marks)

*I*

ics

ict

lab

linux

must

mini

max

tmp

home

usr

bin

1. home
2. ict
3. max
4. mini
5. linux
6. lab
7. Explain **four** parts of an operating system (4 Marks)
8. As a student in Operating System **I** class you have been given an assignment to create a file and execute a shell script. Explain step by step process of executing a shell script (5 Marks)
9. Jane is a student in stage **4**. She is using Linux operating system and she would like to communicate with her friends. As an operating system 1 student explain **three** communication programs in Linux that Jane can use to communicate. (5 Marks)

**QUESTION TWO (15 MARKS)**

1. Give **three** advantages of using Linux Operating system (3 Marks)
2. Giving examples differentiate between absolute pathname and relative pathname (3 Marks)
3. Explain the use of the following commands in Unix (5 Marks)

i)passwd

ii) kill-9

iii) mv

iv) clear

1. lp
2. Alex is interested in Linux, he has consulted you to take him through the process of accessing Linux server from a windows platform. Explain to Alex step by step procedure of connecting to a Linux server from a Windows Operating system (4 Marks)

**QUESTION THREE (15 MARKS)**

1. Define metacharacter (2 Marks)
2. Giving example explain any **three** metacharacters used in Linux (3 Marks)
3. Write the commands used to perform the following tasks (5 Marks)

 i Show present working directory

 ii) Create a user account

 iii) Display calendar for the whole year

 iv) Change user information

 v) Copy *file* to *tmp* directory

1. Explain **five** types of operating system (5 Marks)

 **QUESTION FOUR (15 MARKS)**

1. List and explain **four** types of shell (4 Marks)
2. Explain the use of the following vi editor commands (5 Marks)

i) wq

ii) oO

iii) dd

iv) dw

v) w

**QUESTION FIVE (15 MARKS)**

1. Write the commands used to perform the following tasks (5 Marks)

i) Display user information

ii) Delete file pattern

iii) Rename stage **4** file to stage **5**

iv) Delete **forensic** directory

1. Name and explain **three** division of file permissions (6 Marks)
2. Giving examples explain piping in Linux (4 Marks)