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GABA CAMPUS - ELDORET

MAIN EXAMINATION

SEPTEMBER – DECEMBER 2021 TRIMESTER

FACULTY OF SCIENCE

BACHELOR OF SCIENCE

DEPARTMENT OF COMPUTER AND INFORMATION SCIENCE

CMT 203: INTRODUCTIONS TO SYSTEM ADMINISTRATION

Date: December 2021

Duration: 2 Hours

Instructions: Answer Question **ONE** and any other **TWO** Questions

QUESTION ONE

a) Outline any four tasks performed by a system administrator **(4 Marks)**

b) Differentiate between super user and root account **(2 Marks)**

c) Convert the following permissions using symbolic and Numeric mode
(6 Marks)

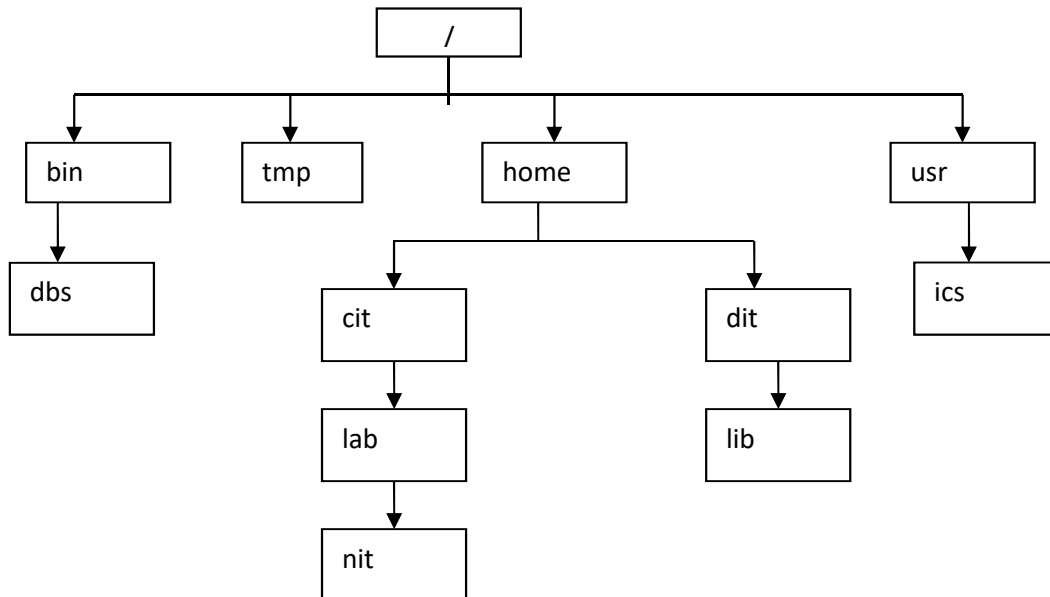
i) `dr-xrw-r-x` admission

ii) `-rw-rw----` system

iii) `-r--r-----` security

d) Use the directory tree diagram to answer the following questions: Let cit be your working directory and write relative pathnames to the following directories

(5 Marks)



- i) lib
- ii) dbs
- iii) home
- iv) nit
- v) root

e) You are required to do the following assignment, create user account by the name daniel and add daniel to Science group. Explain step by step procedure for performing the said tasks. **(4 Marks)**

f) Explain the use of the following commands in Linux **(5 Marks)**

- i) kill -9
- ii) cp
- iii) groupadd
- iv) reboot
- v) passwd

g) Assume you a System administrator and you are required to orient student on how to connect to Linux server from Windows 10. Explain how you will carry out the procedures **(4 Marks)**

QUESTION TWO

- a) Give four advantages of using Linux over Windows Operating system **(4 Marks)**
- b) Explain six run-levels in Linux **(6 Marks)**
- c) Write the commands used to perform the following tasks **(5 Marks)**

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

- i) Halt the system in fifteen minutes time
 - ii) Move file2 to /home directory
 - iii) Create user account by the name linnet
 - iv) Change password for user daniel
 - v) Mount a file
- d) You are required to lock users in Business department from accessing the system and unlock users in Finance department to allow them access the system. Using your knowledge in System administration explain how you can carry out the task **(5 Marks)**

QUESTION THREE

- a) List three types of editor in Linux **(3 Marks)**
- b) Explain the information in group file **(8 Marks)**
- c) Name and explain two modes used in vi editor **(4 Marks)**
- d) Giving example explain how sticky bit works **(5 Marks)**

QUESTION FOUR

- a) Explain the booting process of a Linux system **(8 Marks)**
- b) Give functions of the following commands in vi editor **(5 Marks)**
 - i) x
 - ii) :q
 - iii) u
 - iv) :wq
 - v) dd

- c) Differentiate between command line and graphical interface **(5 Marks)**
- d) Explain the procedure of removing a user from a group **(2 Marks)**

QUESTION FIVE

- a) Using examples, explain how you can use absolute pathname to move from one directory to the other **(5 Marks)**
- b) Differentiate between setuid and setgid **(5 Marks)**
- c) Discuss groups of ownership found in Linux **(6 Marks)**
- d) Explain how you can change file ownership and group **(4 Marks)**

END