THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

MAIN EXAMINATION

SEPTEMBER –DECEMBER 2021

FACULTY OF SCIENCE

DEPARTMENT OF COMPUTER SCIENCE

REGULAR PROGRAMME

DIT 017: INTRODUCTION TO SYSTEM ADMINISTRATION

Date: DEC 2021	Duration: 2 Hours 30 Minutes

INSTRUCTIONS: Answer Question ONE and any other TWO Questions in SECTION B

NOTE:

i.) *You are required to answer all questions in section A and any TWO in section B without leaving any blank question. You will be penalized for leaving any blank space for the questions selected.*

ii.) *Ensure that you use the best HANDWRITING and CORRECT SPELLINGS.*

Q1.

a) Briefly discuss the windows Operating system history. **(4marks)**

b) Discuss any **TWO** types of windows server in the world today. **(4marks)**

c) Discuss the functions of the following Linux commands: **(4marks)**

  (i) ls
  (ii) help
  (iii) date
  (iv) ls –l

d) Explain **FOUR** reasons why you could prefer Linux/Unix servers to windows server.

  (4marks)

e) Define the term workstation giving an example. **(2marks)**

f) State **THREE** roles of a system administrator. **(3marks)**

g) Using examples discuss any **TWO** Unix/Linux **metacharacter** commands. **(5marks)**

h) State **TWO** reasons for performing disk partitioning for your organization. **(2marks)**

i) Highlight **TWO** architectural components of the Linix/Unix system. **(2marks)**

ISO 9001:2015 Certified by the Kenya Bureau of Standards

Q2.

    a) Discuss **THREE** hardware requirements for any server installation that a system administrator would recommend for a startup organization. **(6marks)**

    b) Discuss the functions/roles of the following commands in managing file systems:
        i)   fsck   **(1mark)**
        ii)   who   **(2marks)**
        iii)   cal   **(1marks)**
        iv)   cp   **(2marks)**

    c) Differentiate between Network administration and System administration. **(2marks)**

    d) State the function of mkdir Linux command. **(2marks)**

    e) Explain why you would prefer to use *Linux/Unix* Operating System than windows in your organization. **(4marks)**

Q3.

    a) Define the term System administrator. **(1mark)**

    b) State **TWO** types of servers that are widely in use today at Safaricom Data Centre. **(2marks)**

    c) Outline **THREE** things that a system administrator must do when registering a printer with a BSD-LIKE printer service. **(4marks)**

    d) Define the term **workstation** giving an example. **(3marks)**

    e) Discuss the **FIVE** Unix/Linux shutdown commands. **(10marks)**

Q4.

    a) Discuss **THREE** file Unix attributes used in Unix/Linux file permission operation. **(6marks)**

    b) Explain the **TWO** Unix/Linux changing owners and groups commands. **(4marks)**

    c) Discuss how you could perform installation of Linux Operating System through oracle Virtual VM Box tool. **(6marks)**

    d) State **FOUR** roles of an IT administrator at CUEA University. **(4marks)**

Q5.

    a) Discuss **FOUR** benefits of using **Linux** as your Operating System. **(4marks)**

    b) What is Kernel? Discuss its **FOUR** components. **(4marks)**

    c) State **FOUR** duties of a System administrator in an organization. **(4marks)**

    d) What is disk partitioning**?** **(2marks)**

    e) Explain what happens when the disk partition overlaps. **(2marks)**

    f) Define the following terms: **(4marks)**
        (i) DNS
        (ii) DHCP

END