



(Knowledge for Development)

KIBABII UNIVERSITY

(KIBU)

UNIVERSITY EXAMINATIONS

2019/2020 ACADEMIC YEAR

END OF SEMESTER EXAMINATIONS

YEAR TWO SEMESTER TWO EXAMINATIONS

FOR THE DIPLOMA IN

(INFORMATION TECHNOLOGY)

COURSE CODE : DIT 078

**COURSE TITLE : INTRODUCTION TO SYSTEM
ADMINISTRATION**

DATE: 06/11/2020

TIME: 9.00 A.M. – 12.00 NOON

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

QUESTION ONE (COMPULSORY)**[24 MARKS]**

a) Explain what you understand by

- i. Installation [2 marks]
- ii. uninstallation [2 marks]
- iii. Windows Update [2 marks]
- iv. Microsoft Update [2 marks]
- v. A software license [2 marks]
- vi. System Preferences [2 marks]

b) List and briefly define the three key areas that comprise network management. [6 marks]

c) Define fault management as it applies to network management. [4 Marks]

d) One of the first steps in configuring a device to be managed is to give it an IP address. Why?

[2 Marks]

QUESTION TWO**[18 MARKS]**

a) Discuss three roles of a system administrator [3Marks]

b) Discuss the following terms in relation to security [6 Marks]

- i. Integrity
- ii. Secrecy:
- iii. Availability:

c) Differentiate between a **local user** account and a **domain user** account as applied in networking. [4marks]

d) There are many configuration tools available in the market, each one with a different set of features and different complexity levels. Describe factors to be considered before choosing a configuration management tool. [6marks]

QUESTION THREE**[18 MARKS]**

a) Explain the role of the following objects as applied in network security

- (i) Groups [1 mark]
- (ii)) Computer security [1 mark]
- (iii) User accounts [1 mark]

b) Microsoft active directory offers some features that make it a highly flexible directory service. Discuss the **Four** major features [8 marks]

c) Define network troubleshooting and discuss three major troubleshooting techniques as applied in networking. [7 marks]

QUESTION FOUR

[18 MARKS]

a) Bob has recently taken up a role with a leading SACCO as a systems administrator. Discuss five typical roles that will be part of his duties. [5 marks]

b) You have recently joined ICT staff team of a leading regional bank. Your task is considering deploying new server machines as part of the institution's IT infrastructure upgrading:

i. List any five hardware specifications that are typical of server machines [5 marks]

ii. Discuss five roles characteristic of servers in such an organization [5 marks]

iii. What operating systems would you recommend and why? [3 marks]

QUESTION FIVE

[18 MARKS]

a) In an age where use of computer based systems is prominent, a lot of attention has been directed towards System security

i. What is System security [2 marks]

ii. Discuss two ways used to mitigate/prevent security attacks? [2 marks]

b) Joe is unable to access the internet via a computer he is using in the lab. He comes to you as a network administrator for assistance:

i. Outline four possible causes for his problem [4 marks]

ii. List any two solutions to the issues you raise in part (i) above [2 marks]

c) Briefly explain three main considerations when connecting a workstation to a network.

[3 marks]

d) Briefly discuss two challenges relating to server virtualization.

[2 marks]

e) What is a file system? List any two file systems used in Linux operating system machines.

[3 marks]