(Knowledge for Development)

KIBABII UNIVERSITY
(KIBU)

UNIVERSITY EXAMINATIONS
2020/2021 ACADEMIC YEAR

END OF SEMESTER EXAMINATIONS
YEAR TWO SEMESTER TWO EXAMINATIONS

FOR THE DIPLOMA IN
INFORMATION TECHNOLOGY

COURSE CODE : DIT 078

COURSE TITLE : SYSTEMS ADMINISTRATION

DATE: 05/10/2021   **TIME:** 2.00 P.M. - 4.00 P.M.

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

QUESTION ONE [COMPULSORY]   [24 MARKS]

a) Discus the duties of a Systems Administrator.

[8 marks]

b) Discuss the difference between Server computer and client computer.

[4 marks]

c) DHCP has **THREE** main components. Briefly define DHCP and describe each of its components.

[8 marks]

d) Explain **TWO** ways of assigning IP address to a node in a network.

[4 marks]

QUESTION TWO [18 MARKS]

a) Explain why it is important to perform backups on a regular basis.

[2 marks]

b) Outline the challenges of System Administration.

[6 marks]

c) Discuss the **TWO** major functions of active directory.

[4 marks]

d) Using dynamic host configuration protocol (DHCP). Explains **THREE** methods of allocating IP addresses.

[6 marks]

QUESTION THREE [18 MARKS]

a) As a Systems Administrator you are charged with the responsibilities of installing server operating system. However, before you make these installations, you have to consider hardware components. Discuss the following hardware components while outlining their importance before installation.

[8 marks]

i)   Memory

ii) Processor/CPU

iii) Network

iv) Storage

b) What is proxy server? State **FOUR** types.

[6 marks]

c) As a System Administrator, describe **Two** backup/restore policy you may use.   [4 marks]

QUESTION FOUR [18 MARKS]

a) Explain at least **Four** messages defined by DHCP.   [4 marks]

b) User management is a System Administrator's task. Discuss what it involves.   [8 marks]

c) Explain the following server services.   [6 marks]

   i)   DNS

   ii) HTTP

   iii) Proxy

QUESTION FIVE [18 MARKS]

a) Discuss the following server Administrative Domains.   [8 marks]

   i)   Network Domain

   ii) Database Domain

   iii) Web Domain

   iv) Operating System Domain

b) List any four server Operating Systems.   [4 marks]

c) What is a protocol? Give **ONE** example.   [2 marks]

d) Differentiate the terms service packs and patches as used in server maintenance.

                                                                               [4 marks]