



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR
SECOND YEAR SECOND SEMESTER EXAMINATIONS
FOR THE DIPLOMA
IN
INFORMATION TECHNOLOGY**

COURSE CODE: DIT 078

COURSE TITLE: SYSTEM ADMINISTRATION

DATE: 14/04/2023

TIME: 2:00-3:30PM

INSTRUCTIONS TO CANDIDATES

Answer Question **ONE (1)** and any other **TWO**

TIME: 2 Hours

MMUST observes **ZERO** tolerance to examination cheating

This Paper Consists of 3 Printed Pages. Please Turn Over.

- b) You are a system administrator in Mwangaza Company. Explain any **three** ethical conducts that you will exhibit **(6 marks)**
- c) List the one component and one function of the following Linux directories **(6 marks)**
- i. /bin
 - ii. /sbin
 - iii. /home

QUESTION THREE (18 MARKS)

- a) You have been hired as a system administrator in XYZ Company. You are told to give a lecture on any 3 different types of servers and their services. Briefly explain any 2 services offered by these servers. **(6 marks)**
- b) Describe **three** Challenges faced by a system Administrator **(6 marks)**
- c) A content management system (CMS) is a software tool used to create, retrieve, update, and delete the content of a website. Describe the core features and functions of CMS **(6 marks)**

QUESTION FOUR (18 MARKS)

- a) Discuss the TASKS of a modern network administrator **(6 marks)**
- b) Operating systems have a number of key elements. List any THREE of these of these elements and explain briefly the role of each. **(6 marks)**
- c) Though users are an essential part of a system, they are also a threat.
- (i) State any two kinds of threats users can pose to a system. **(3 marks)**
 - (ii) Describe two measures you can take as a system administrator to ensure that users are not a threat to the system. **(3 marks)**

QUESTION FIVE (18 MARKS)

- a) Discuss the two classifications of Intrusion Detection Systems (IDS) and clearly explain their components. **(4marks)**
- b) You have been hired to implement OS hardening in a company, discuss the in-depth steps you would use to harden the OS stating its importance. **(7 Marks)**
- c) During the boot process, the operating system determines which services it needs to run at different run levels. Describe the run levels available and what each level means. **(7 marks)**