



(Knowledge for Development)

KIBABII UNIVERSITY (KIBU)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

END OF SEMESTER EXAMINATION

2021/2022 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER EXAMINATION

FOR THE DEGREE OF BACHELORS OF SCIENCE IN

(INFORMATION TECHNOLOGY)

COURSE CODE: BIT 223

COURSE TITLE: NETWORK ADMINISTRATION MANAGEMENT

DATE: 17/05/2022

TIME: 9.00 A.M. – 11.00 A.M.

2HRS

INSTRUCTIONS TO CANDIDATES:

ANSWER QUESTION ONE AND ANY OTHER TWO.

Paper Consists of 3 Printed Pages. Please Turn Over ➔

QUESTION ONE (COMPULSORY) [30 MARKS]

- a) Define the following term [5 marks]
- i) Network Administration
 - ii) Network administrator
 - iii) Network service
 - iv) Client
 - v) Server
- b) What are network administration categories as per ISO? [5 Marks]
- c) State any three codes of conduct for network administrator as per ethics [3 Marks]
- d) What is the difference between SNMP and TMN architecture [4 Marks]
- e) Highlight any four messages exchanged between a DHCP server and client during allocation of IP addresses [8 Marks]
- f) Highlight any four messages exchanged between a DHCP server and client during allocation of IP addresses [5 Marks]

QUESTION TWO [20 MARKS]

- a) Network management protocols are responsible for ensuring communication between network resources that are increasingly heterogeneous, state any two network management protocols apart from SNMP network management protocol. (3 marks)
- b) State and explain elements that make up SNMP-based network management architecture (8 marks)
- c) It required that net ALL network administrator must have network documentation, highlight what each network documentation file should contain: (9 Marks)

QUESTION THREE [20 MARKS]

- a) Explain Why would outsiders appear in the organization for maintenance yet you are hired for such work? (5 Marks)
- b) Before we can identify vulnerabilities, we must first decide what we need to protect. Thus, the first step of a risk analysis is to identify the assets of the computing system which are available in our network settings. List these assets. (5 Marks)
- c) State and explain any three tools used to monitor a network (10 Marks)

QUESTION FOUR [20 MARKS]

- a) Explain what the following terms in network management mean (10 Marks)
- i Managed device.
 - ii Managing Entity.

- iii Network management protocol.
- iv Management information base (MIB)
- v Agent

b) List and explain any five network services

(10 Marks)

QUESTION FIVE [20 MARKS]

- a) State and explain network performance metrics (9 marks)
- b) Differentiate between private IP and Public IP giving reason why we need the two types of IPs (6 Marks)
- c) Identify tools which are used to manage networks based on web technology? (5 Marks)