



**MASINDE MULIRO UNIVERSITY OF SCIENCE  
AND TECHNOLOGY**

**END OF SEMESTER EXAMINATIONS**

**2021 / 2022 ACADEMIC YEAR**

**THIRD YEAR SECOND SEMESTER SPECIAL EXAMINATIONS  
FOR THE DEGREE**

**OF**

**BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY**

**COURSE CODE: BIT 329E**

**COURSE TITLE: INFORMATION ASSURANCE AND  
SECURITY II**

**DATE: TUESDAY 26<sup>TH</sup> APRIL, 2022**

**TIME: 8:00-10:00AM**

**INSTRUCTIONS TO CANDIDATES**

Answer ALL questions in section A and ANY TWO questions in section B

**DURATION: 2Hours**

**MMUST observes ZERO tolerance to examination cheating**

Please Turn Over.



## SECTION A: COMPULSORY

### QUESTION ONE (30 MARKS)

- a) Elaborate the importance of information security in today's business venture 4 Mks
- b) Differentiate between the following terms
- i. Threat and Attack 2 Mks
  - ii. Vulnerability and Usurpation 2 Mks
  - iii. Policy and Standard 2 Mks
  - iv. Mechanism and guideline 2 Mks
- c) Managing a business from an information security professional's point of view means there needs to be some form of asset classification within the operational structures of the company. Explain this statement. 5 Mks
- d) Reasonable security policy must be based on the results of a risk assessment. Explain 5 Mks
- e) Briefly explain the FOUR classes of threats 4 Mks
- f) Security audits are vital in an organization, explain 4 Mks

### QUESTION TWO (20 MARKS)

- a) In the realm of information security and information technology, an asset is anything of value to a business that is related to information services. Define the term information security asset and discuss different classifications of information assets and their respective security measures. 12 Mks
- b) Knowing and understanding the states of information helps to know what security measures you could apply. Explain 8 Mks

### QUESTION THREE (20 MARKS)

- a) As the chief security officer, you have been tasked to explain to your juniors how security is implemented in different domains. Illustrate how security is implemented in the following domains
- i. Human Computer Interaction 4 Mks

- ii. Integrative Programming 4 Mks
- iii. Networking 4 Mks
- iv. Platform Technologies 4 Mks
- v. System Administration 4 Mks

**QUESTION FOUR (20 MARKS)**

- a) Define digital forensics and explain the typical investigation phases 14 Mks
- b) In digital forensics, evidence collection should always be performed to ensure that it will withstand legal proceedings. Explain 6 Mks

**QUESTION FIVE (20 MARKS)**

While Information security policies themselves don't solve problems, and in fact can actually complicate things unless they are clearly written and observed, policy does define the direction toward which all organizational information security efforts should point. Discuss the types of Information security policies, factors to consider before developing a policy and outline the steps to follow in when developing a policy in an organization 20 Mks

**END**