



ZIMBABWE EZEKIEL GUTI UNIVERSITY

FACULTY OF HEALTH, SCIENCE AND TECHNOLOGY

DEPARTMENT OF DIGITAL TECHNOLOGY

EXAMINATION PAPER

COURSE CODE : CDT 407

COURSE TITLE : **Information Systems Security**

SPECIAL REQUIREMENTS : None

DURATION : 3 Hours

LEVEL : 4.1

DATE : 2022

17 FEB 2022

INSTRUCTIONS TO CANDIDATES:

1. Answer any 4 Questions from the whole paper.
2. The total Marks for the examination is 100.
3. The marks allocation for each question are indicated in square brackets []

Question 1

Explain what you understand by the following terms with reference to cybercrime. Give examples for each.

- i. Denial of Services [5 Marks]
- ii. Hacking [5 Marks]
- iii. Cyber Stalking [5 Marks]
- iv. Viruses and Mail Bombing [10 Marks]

Question 2

- i. Discuss 3 main goals of a policy in an organisation. [10 Marks]
- ii. When an organisation is developing a policy they go through the following stages Investigation Phase, Analysis Phase, Design Phase, Implementation Phase, Maintenance Phase. Explain key points to be considered for each stage [15 Marks]

Question 3

Threats faced by the application can be categorized based on the goals and purposes of the attacks. Give examples of threats which an IT system can face [25 Marks]

Question 4

Denial of service (DoS) attacks have become the weapon of choice for cyber-terrorists. Any attacks aimed at hampering a service can fall into this category. This sort of attackers tries to exploit a known witness in software, networking practices, and operating systems to crash a system or subsystem.

- a. Discuss the four type of DoS attacks [20 Marks]
- b. Discuss DDoS [5 Marks]

Question 5

A. Define the following terms as used in computer security

- i. Authentication
- ii. Digital signature
- iii. Data integrity
- iv. Biometric identification [10 marks]

B. What is a threat and describe how a Security Administrator would estimate the likelihood of a threat to an organisation [15 marks]

End of Paper