

BOWEN UNIVERSITY IWO, OSUN STATE
COLLEGE OF COMPUTING AND COMMUNICATION STUDIES
CYBER SECURITY PROGRAMME

B. Sc. DEGREE, FIRST SEMESTER EXAMINATION, 2023/2024 SESSION
COURSE CODE: CYB 303 || COURSE TITLE: CRYPTOGRAPHIC TECHNIQUES
COURSE CREDITS: 2 Units || DATE: THURSDAY 1st FEBRUARY, 2024 TIME
ALLOWED: 2hours

Instruction: Answer question one and any other two questions

Question 1

- a.
 - i. Define Cryptography, Cipher
 - ii. With the aid of a diagram explain the cryptography model.
- b.
 - i. Define Kerchoff's principles
 - ii. Using the shift key on the normal English alphabet, encrypt the following words "Intrusion", "Cryptoanalysis", "Attacks", "Integrity".

30 marks

Question 2

- a. Explain Public Key Infrastructure (PKI)
- b.
 - i. Describe Organisational Registration Authority (ORA)
 - ii. State five functions of ORA

20 marks

Question 3

- a.
 - i. Define Steganography
 - ii. List five types of Ciphers and describe two of them.
- b.
 - i. Discuss Digital Signature
 - ii. State two uses of Digital Signature

20 marks

Question 4

- a. With the aid of a diagram, explain symmetric cryptography
- b. Briefly discuss three types of Cryptographic features

20 marks

Question 5

- a.
 - i. Describe Virtual Private Network (VPN).
 - ii. State and discuss two types of VPN
- b.
 - i. Explain Secure Socket Layer
 - ii. Briefly describe three key elements that define SSL Session state.

20 marks