

BOWEN UNIVERSITY IWO, OSUN STATE
COLLEGE OF COMPUTING AND COMMUNICATION STUDIES
CYBERSECURITY PROGRAM

B. SC. DEGREE FIRST SEMESTER EXAMINATION SESSION: 2022/2023

COURSE TITLE: INFORMATION SECURITY POLICY

COURSE CODE: CYB 208 WEDNESDAY 21/06/2023 TIME: 2 HOURS CREDIT UNITS:2

Instruction: Answer 3 questions only

Question One

- (a) What do you understand by Computer Security? 3 marks
- (b) List and explain the three key objectives of Information security. 9 marks
- (c) List and explain two (2) other concepts to a complete Information security 4 marks
- (d) What is Security breach? 2 marks
- (e) Succinctly explain the three (3) Levels of security breach impact 6 marks

Question Two

- (a) Using a real life scenario (based on students' information) describe the concept of security requirements in respect to Confidentiality 6 marks
- (b) Highlight Security requirements based on Integrity using the hospital patients as example. 8 marks
- (c) As a cybersecurity expert, there are some challenges you would experience in ensuring you carry out a perfect System Security. Mention eleven (11) Challenges you might possibly face in delivering your duty. 11 marks

Question Three

- (a) Use a diagrammatical representation to describe Information Security concepts and relationships 7 marks
- (b) Write short note on the following information security terms.
i. Adversary ii. Threat iii. Risk iv. Countermeasure v. Security policy
vi. System resource vii. Vulnerability viii. Attack 16 marks
- (c) What do you understand by the term Threat? 2 marks

Question Four

- (a) State four (4) consequences of threats 8 marks
- (b) What is Cyber-attack? 3 marks
- (c) Write Extensively on just one (1) of the following by identifying a case of an attack incidence based on anyone of your choice. 14 marks
i. Ransomware ii. Phishing attack iii. Malware iv. Brute force v. Denial of service
vi. Insider threats vii. Spoofing viii. Advanced Persistent threats ix Drone Cyber-attack
x. Biggest Password leak ever xi. Social Engineering attack xii. Watering Hole Attack

Question Five

- (a) Write short note on each of the following Information securities features 6 marks
i. Access ii. Asset iii. Attack

(b) A successful organization should have multiple layers of security in place to protect its operations; state the 7 layers of information security expected by an organization to put in place for a smooth and successful running of its operations. 14 marks

(c) Succinctly describe one (1) of the following

i. Attack Surface/ Attack trees
and Equity practice

ii. The fundamental security principles
iv. Security Requirement fundamentals

iii. Information
5 marks