



BOWEN UNIVERSITY IWO, OSUN STATE
COLLEGE OF COMPUTING AND COMMUNICATION STUDIES
COMPUTER SCIENCE PROGRAMME
B.SC. DEGREE FIRST SEMESTER EXAMINATION SESSION: 2023/2024
COURSE TITLE: SOFTWARE ENGINEERING SECURITY
COURSE CODE: SEN 409 COURSE CREDIT: 3 UNITS
INSTRUCTION: Answer any four questions TIME ALLOWED: 2 HOURS

Question One

- a. Explain the concept of Software Risk. (8 Marks)
- b. How do you carry Software risk management in Software development? What are the risk a software project manager has to deal with? (12 Marks)

Question Two

- a. With the aid of diagram explain software risk identification. (6 Marks)
- b. Discuss software risk planning with the aid of diagram. (8 Marks)
- c. Explain how to monitor software risk in software development. (6 Marks)

Question Three

- a. What do you understand by Security System Development Life Cycle? (6 Marks)
- b. Discuss the main benefits of adopting a secure System Development Life Cycle. (8 Marks)
- c. Explain the following terms Information Security Risks, and Application Security (6 Marks)

Question Four

- a. Some organizations have started using Intrusion Detection and Response Systems (IDRSes) to detect computer intrusions. Why? (8 Marks)
- b. With the aid of diagram, discuss the proactive and reactive approaches to Software engineering security. (12 Marks)

Question Five

- a. What do you understand by Software Security? Why did Software Security aim to avoid security vulnerabilities? (6 Marks)
- b. Explain with the aid of examples the following terms Defects, Bugs, Flaws and Failures in Software Engineering Security (8 Marks)
- c. Discuss the three pillars of software security (6 Marks)

Question Six

- a. In an hospital environment, one of your duties as Software Engineer is to protect patient record. How would you go about it? (8 Marks)
- b. What do you understand by Buffer Overflow and how does it affect software security? (8 Marks)
- c. How do vulnerabilities affect software engineering security? (4 Marks)