(Knowledge for Development)

KIBABII UNIVERSITY

(KIBU)

UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR

END OF SEMESTER EXAMINATIONS
YEAR FOUR SEMESTER I EXAMINATIONS

FOR THE DEGREE OF
BACHELOR OF SCIENCE
IN
COMPUTER SCIENCE

COURSE CODE   : CSC 463E

COURSE TITLE   : WEB APPLICATION SECURITY

DATE: 14/11/22   TIME: 08.00 A.M – 10 .00 A.M

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS

QUESTION ONE [30 MARKS]

a. Define the term Web application security   [2 Marks]

b. There many common web app security vulnerabilities. Discuss any three. [6 marks]

c. Explain two functions of a Web Application Firewall (WAF)   [2 Marks]

d. Define the role of the following cyber security personnel: [6 marks]

e. As a software developer there are some Tips developers should remember to protect and secure information. Mention any five.   [5 Marks]

f. State and Explain four legal issues used to protect your App   [4 marks]

g. Explain five computer security threats   [5 Marks]

QUESTION TWO [20 MARKS]

a. What is a security risk assessment?   [2 Marks]

b. There are four steps of coming up with a successful security risk assessment model. Explain them   [4 Marks]

c. What problems does a security risk assessment solve?   [4 marks]

d. Web development is expediting at an aggressive rate. State and Explain five challenges experienced in web application development   [10 Marks]

QUESTION THREE [20 MARKS]

a. Explain four ways of Effectively Managing Security Risks   [4 Marks]

b. Discuss the Importance of an Information Security Policy   [2 Marks]

c. Discuss the following elements when developing an information security policy

        [14 Marks]

    i. Purpose

    ii. Audience

    iii. Information security objectives

    iv. Authority and access control policy

    v. Data classification

    vi. Data support and operations

    vii. Security awareness and behavior

QUESTION FOUR [20 MARKS]

a. State five Best Practices for Drafting Information Security Policy [10 Marks]

b. Physical security needs to be established in every Web Application system. Explain three techniques for establishing physical security [6 Marks]

c. What is Data Encryption in Network Security? [2 Marks]

d. Explain Encryption Works [2 Marks]

QUESTION FIVE [20 MARKS]

a. Define a Digital Signature [2 Marks]

b. Digital signature is divided into 3 types, Name them and explain each one of them [6 Marks]

c. Discuss the three uses of Digital Signatures [9 Marks]

d. Explain how Digital Signatures work [3 Marks]