

SOUTH EASTERN UNIVERSITY OF SRI LANKA
SECOND EXAMINATION IN BACHELOR OF INFORMATION AND
COMMUNICATION TECHNOLOGY - 2017/2018

SEMESTER – II, SEPTEMBER 2020

CIS 22022 – Information Assurance and Forensics

Answer all questions.

Time allowed: 02 hours

Question 01:

- a) What do you mean by *Information Security*?
(20 Marks)
- b) List out the *critical characteristics* of information that needs to be ensured.
(15 Marks)
- c) Differentiate the terms *vulnerability* and *attacks*
(25 Marks)
- d) A successful organisation should have multiple layers of security in place to protect its operations. List out and describe those *layers of the security process*.
(40 Marks)

[Total 100 Marks]

Question 02:

- a) Write down three essential functions of *Information Security* performs for an organisation
(20 Marks)
- b) State any five possible *information Security threats* to organizations.
(25 Marks)
- c) State any five security *problems* during *software development* you may face.
(25 Marks)
- d) Draw the *CNSS Security Model of McCumber* cube with the proper labelling, and write the required control or safeguard that addresses for any of the cells of this Cube.
(30 Marks)

[Total 100 Marks]

Question 03:

- a) What do you mean by the *cryptography*?
(20 Marks)
- b) Find out the ciphertext of the original message "***SOUTH EASTERN UNIVERSITY OF SRI LANKA***" using the following.
- You should use *Monoalphabetic Substitution* (Type 1) algorithm for this encryption.
 - The Key is: *CIPHERV*
- (40 Marks)
- c) Give some *international laws* and *legal bodies* which are related with for Information Security.
(20 Marks)
- d) What would be the contents of *malicious* codes?
(20 Marks)

[Total 100 Marks]

Question 04:

- a) Describe briefly the term "*Forensics*."
(20 Marks)
- b) What are the steps included in *investigation triad*?
(20 Marks)
- c) Discuss the requirements to investigate, and the recommended steps for an "*Internet Abuse Investigation*."
(40 Marks)
- d) What type of security was dominant in the early years of computing?
(20 Marks)

[Total 100 Marks]