UNIVERSITY OF FORT HARE

INFORMATION SYSTEMS HONOURS INFORMATION SECURITY, RISK & CONTROLS
BIS522E

EXAMINATION

NOVEMBER

2019

Time: 180 minutes (3 hours)
Subject: BIS522E
Marks: 100

This paper consists of 2 pages including the cover page

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INSTRUCTIONS

This paper consists of 2 Sections.

- Answer TWO questions in Section A.
- Answer TWO questions in Section B.
- Answer ONE question in Section C.
- Answer ONE question in Section D.

The value of the mark for each question can be used as a rough guide for the amount of time allocated to answer the question.

It is in your interest to write as neatly as possible, so your handwriting can be easily read.
SECTION A

ANSWER TWO QUESTIONS FROM THIS SECTION

Question 1 [15 MARKS]

There are 12 recognised threats to an organisation’s people, information and systems. List and discuss THREE of these threats.

AND/OR

Question 2 [15 MARKS]

Define due care and describe why an organisation should make sure to exercise due care in its usual course of operations. Additionally, explain how due care differs from due diligence.

AND/OR

Question 3 [15 MARKS]

List and discuss the components of risk identification.
SECTION B

Question 4 [15 MARKS]

Describe how public key infrastructure (PKI) adds value to an organisation seeking to use cryptography to protect information assets? List and describe the components of PKI.

AND/OR

Question 5 [15 MARKS]

List and briefly describe the five domains of the general security maintenance model.

AND/OR

Question 6 [15 MARKS]

List and discuss TWO biometric access control technologies. In addition, describe which human characteristics are most reliable for use for biometric authentication and provide a reason for this.

SECTION C

Question 7 [20 MARKS]

All access control approaches rely on four mechanisms. Identify and describe these mechanisms.

OR

Question 8 [20 MARKS]

Explain what Risk Control is. In addition, describe three control strategies used to help control risk.
SECTION D  

ANSWER ONE QUESTION FROM THIS SECTION

Question 9  [20 MARKS]

List and describe the four basic conversion strategies that are used when converting to a new system. Under which circumstances is each strategy the best approach?

OR

Question 10  [20 MARKS]

List and describe three fundamental ways that data can be intercepted. How does a physical security program protect against each of these data interception methods?

END OF PAPER