OCR
Oxford Cambridge and RSA

Tuesday 21 May 2019 – Afternoon

LEVEL 3 CAMBRIDGE TECHNICAL IN IT

05839/05840/05841/05842/05877 Unit 3: Cyber security

Time allowed: 1 hour plus your additional time allowance

You must have:
a clean copy of the pre-release (Insert C387)

Modified Enlarged 18 pt

Please write clearly in black ink.

Centre number								
Candidate number								
First name(s)								
Last name								
Date of Birth	D	D	M	M	Y	Y	Y	Y

INSTRUCTIONS

The Insert will be found with this document.

Use black ink.

Answer ALL the questions.

Write your answer to each question in the space provided.

Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).

INFORMATION

The case study should be used to answer questions in Section A.

The total mark for this paper is 60.

The marks for each question are shown in brackets [ ].

Quality of extended response will be assessed in the question marked with an asterisk (*).

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Answer ALL the questions.

SECTION A

This section relates to the case study on Progressive Moniez.

1 The cyber security department of Progressive Moniez has been contacted after the company was the victim of an attack. The first step is to complete a cyber security incident report.

(a) Describe the purpose of a cyber security incident report.

_____

_____

_____

_____ **[2]**

(b) Use the template below to complete the cyber security incident report for the attack committed against Progressive Moniez in January 2019. Part of it has already been completed.

Cyber Security Incident Report	
Title	[1]
Date	January 18th 2019
Target	[1]
Type of Incident(s)	[1]
Description of Incident	Funds were taken from one of the cryptocurrencies stored and customer details were also accessed.
Type of attacker(s)	[1]
Purpose of Incident(s)	[2]
Techniques used by attacker(s)	[2]
Impact on the business	[2]

(c) The organisation, Progressive Moniez, was one target of the attack. Identify TWO OTHER targets of the attack for each, explain why they would have been targeted.

Target 1 _____

_____

Reason _____

_____

_____

_____

Target 2 _____

_____

Reason _____

_____

_____

_____

[6]

(d) Describe THREE features of an intrusion prevention system (IPS) that could be used by Progressive Moniez to protect its network.

Feature 1 _____

_____

_____

_____

Feature 2 _____

_____

_____

_____

Feature 3 _____

_____

_____

_____

[6]

(e)* Evaluate the benefits to Progressive Moniez of using monitoring and control systems for cyber security.

_____ **[7]**

2* Discuss the implications of cyber security legislation on Progressive Moniez. [10]

SECTION B

You do not need the case study to answer these questions.

3 (a) The diagram below shows three terms associated with cyber security and three descriptions.

Draw a line to connect each term to the correct description. [3]

TERM	DESCRIPTION
Confidentiality	An assurance that the information is trustworthy and accurate
Integrity	A guarantee of access to the information which is required
Availability	Protecting the information from being disclosed to unauthorised individuals

(b) Identify the type of cyber security incident from the definition given. [3]

Definition	Type
Making the data irretrievable	
Altering the data	
Account lockouts or denial of service	

4 (a) Daniil stores his data on a memory stick. He is concerned that if he loses the memory stick, his data could still be accessed. He has been told that he should encrypt the data on the memory stick.

Explain how encryption could be used to protect the data on the memory stick.

_____

_____

_____

_____

_____

_____

_____

_____ [4]

(b) Identify ONE OTHER method that Daniil could use to protect his data.

_____

_____ [1]

5 Identify and describe TWO possible motivations of a cyber attacker.

Motivation 1 _____

Description _____

_____

_____

Motivation 2 _____

Description _____

_____

_____

[4]

6 Explain TWO reasons why a company might want to employ an ethical hacker.

Reason 1 _____

_____

_____

_____

Reason 2 _____

_____

_____

_____

[4]

END OF QUESTION PAPER

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