OCR
Oxford Cambridge and RSA

Monday 17 January 2022 – Morning

Level 3 Cambridge Technical in IT

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

Time allowed: 1 hour
C384/2201

You must have:
- a clean copy of the Pre-release (inside this document)

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
- Use black ink.
- Write your answer to each question in the space provided. If you need extra space use the lined pages at the end of this booklet. The question numbers must be clearly shown.
- Answer **all** the questions.
- Use the Insert to answer Questions 1 and 2.

INFORMATION
- 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 questions marked with an asterisk (*).
- This document has **16** pages.

ADVICE
- Read each question carefully before you start your answer.

FOR EXAMINER USE ONLY	
Question No	Mark
1	/29
2	/10
3	/13
4	/4
5	/4
Total	**/60**

Section A

Answer **all** the questions.

1   **(a)**   When E James installed the password manager app, the app gave some hints and tips on how to secure their phone including how to prevent access to the data stored on their phone.

Two of the hints and tips they were given were to:

- make sure that their phone is running the latest operating system (OS) by installing updates

- install an anti-malware app.

(i)   Explain how each of these protect their data.

OS Updates ....

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Anti-malware ....

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[4]

(ii) Identify and explain **two** other methods that could be used to prevent access to data stored on the phone.

Method 1 ....

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Description ....

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Method 2 ....

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Description ....

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[6]

(b) (i) Two types of cyber security incident that could be caused by an individual obtaining the passwords that are stored in the password manager are account lockout and destruction.

Describe these types of cyber security incident.

Account Lockout ....

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Destruction ....

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[4]

(ii) Identify **one** other type of cyber security incident that could be caused by an individual obtaining the passwords stored in the password manager.

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.... **[1]**

(c) Threats to the data stored on E James's phone can be classified as accidental or intentional.

Describe what is meant by an accidental and an intentional cyber security threat.

Accidental ....

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Intentional ....

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[4]

Turn over

(d) Describe **two** methods that could be used during a cyber attack, to obtain the passwords stored in the password manager.

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2 ....

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[4]

(e) A cyber security attack has taken place and E James is advised that they need to reduce the impact of the theft of the passwords.

   (i) Describe **one** action that could be made to reduce the impact of the theft of the passwords.

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.... **[2]**

   (ii) Explain how the action you have described above will reduce the impact.

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.... **[3]**

   (iii) Identify **one** other action E James could take.

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.... **[1]**

2* Evaluate the ethical considerations of using a password manager.

[10]

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.... **[10]**

Turn over

Section B

Answer **all** the questions.

3   Padas Travel Company has suffered a cyber security incident. Its server was hacked and all customer information stolen. The information stolen included:

- Customer personal details

- Customer financial details

- Details about the holidays they have booked.

Following the cyber security incident, Padas Travel Company has hired a security company to produce a cyber security incident report about the theft of data.

(a) Identify **two** areas that could have been impacted by the theft of the customer data.

1 ....

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2 ....

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[2]

(b) Describe **two** items that need to be considered in the review section of the cyber security incident report.

1 ....

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[4]

Following the publication of the cyber security incident report, Padas Travel Company has decided to investigate the use of monitoring systems as part of their cyber security risk management system.

(c)* Evaluate the use of monitoring systems as a method of cyber security risk management.

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Turn over

4 Two of the objectives of security are maintaining confidentiality and integrity of data.

Describe what is meant by confidentiality and integrity.

Confidentiality ....

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Integrity ....

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[4]

5 Companies are targeted by different types of attacker, each with their own separate agenda.

(a) Draw a line to connect each description of an attacker to the correct type.

Description of Attacker
Uses someone else's codes to hack into the computer
Sells information on weaknesses in computer systems
Sends an email pretending to be from the organisation

Type of Attacker
Phisher
Script Kiddie
Vulnerability Broker

[3]

(b) Identify **one** other type of attacker.

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.... **[1]**

END OF QUESTION PAPER

ADDITIONAL ANSWER SPACE

If additional answer space is required, you should use the following lined pages. The question numbers must be clearly shown in the margins – for example, 2 or 3(c).