



Oxford Cambridge and RSA

Friday 12 January 2024 – Afternoon

Level 1/Level 2 Cambridge National in IT

R050/01 IT in the digital world

Time allowed: 1 hour 30 minutes



No extra materials are needed.



Please write clearly in black ink. **Do not write in the barcodes.**

Centre number

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Candidate number

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First name(s)

Last name

INSTRUCTIONS

- Use black ink.
- Write your answer to each question in the space provided. You can use extra paper if you need to, but you must clearly show your candidate number, the centre number and the question numbers.
- Answer **all** the questions.

INFORMATION

- The total mark for this paper is **70**.
- The marks for each question are shown in brackets [].
- This document has **12** pages.

ADVICE

- Read each question carefully before you start your answer.

2
Section A

- 1** Identify **two** components of a mind map.

1

2

[2]

- 2** Which of these is **not** an operating system?

Tick (✓) **one** box only.

A Android

☐

B Linux

☐

C Office

☐

D Ubuntu

☐

[1]

- 3** A Human Computer Interface (HCI) is designed to manipulate numeric data.

Which digital platform would be used?

..... [1]

- 4** Identify **one** user interaction method other than touch that could be used on a HCI.

..... [1]

- 5** Which of these is **not** a numeric data type?

Tick (✓) **one** box only.

A Boolean

☐

B Decimal

☐

C Percentage

☐

D Real

☐

[1]

- 6** Which validation tool would be used to check that data has been entered into a field on a form?

..... [1]

7 Identify **one** data verification tool.

..... [1]

8 Identify **two** primary data collection methods.

1

2 [2]

9 Draw a line to link the type of malware to the correct description.

You will only use **two** types of malware to complete this task.

Type of Malware	Description
Spyware	A standalone program that replicates itself
Trojan Horse	
Worm	Collects user log-in details

[2]

10 Data theft can occur when data is **in transit**.

Identify **one** other state when data theft could occur.

..... [1]

11 What does RFID stand for?

..... [1]

12 Identify the legislation that relates to the protection of an image.

..... [1]

Section B

An animal charity is organising a discovery trail competition which will last for three weeks. Painted statues of dogs will be placed in different locations of a town for people to find.

To take part people have to register using a HCI on a mobile app and pay an entry charge. Each person who registers is allocated an entry number.

13 Data is entered to register on the mobile app using a HCI.

(a) What is meant by the term 'data'?

.....

.....

.....

..... **[2]**

(b) Data validation has been used on the HCI for the mobile app.

Describe how the data type check and input mask can be used to reduce data entry errors on the registration screen.

Data type check

.....

.....

.....

Input mask

.....

.....

.....

[4]

14 The charity has stored details about each entrant on a network drive. A backup of this data is stored on a USB flash drive.

(a) Identify **two** characteristics of a USB flash drive that make it suitable to store the backup.

1

.....

2

.....

[2]

(b) One threat that could occur if the USB flash drive is not protected is identity theft.

What is identity theft?

.....

.....

.....

..... **[2]**

(c) Logical prevention measures will be used to increase the protection of the entrants' data stored on the USB flash drive.

Explain how two-factor authentication (2FA) and encryption could be used by the animal charity to keep the data stored on the USB flash drive secure.

2FA

.....

.....

.....

Encryption

.....

.....

..... **[4]**

15 The mobile app has a HCI. Part of the HCI is the registration screen for the competition.

(a) Identify **one** hardware resource that should be considered when designing the registration screen.

..... **[1]**

- (b) The animal charity could use Desktop Publishing (DTP) software to create the visualisation diagram of the registration screen.

Explain **two** advantages to the animal charity of using DTP software to create the visualisation diagram.

1

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2

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[4]

- (c) Explain how using the HCI on a mobile app will impact on the design of the HCI.

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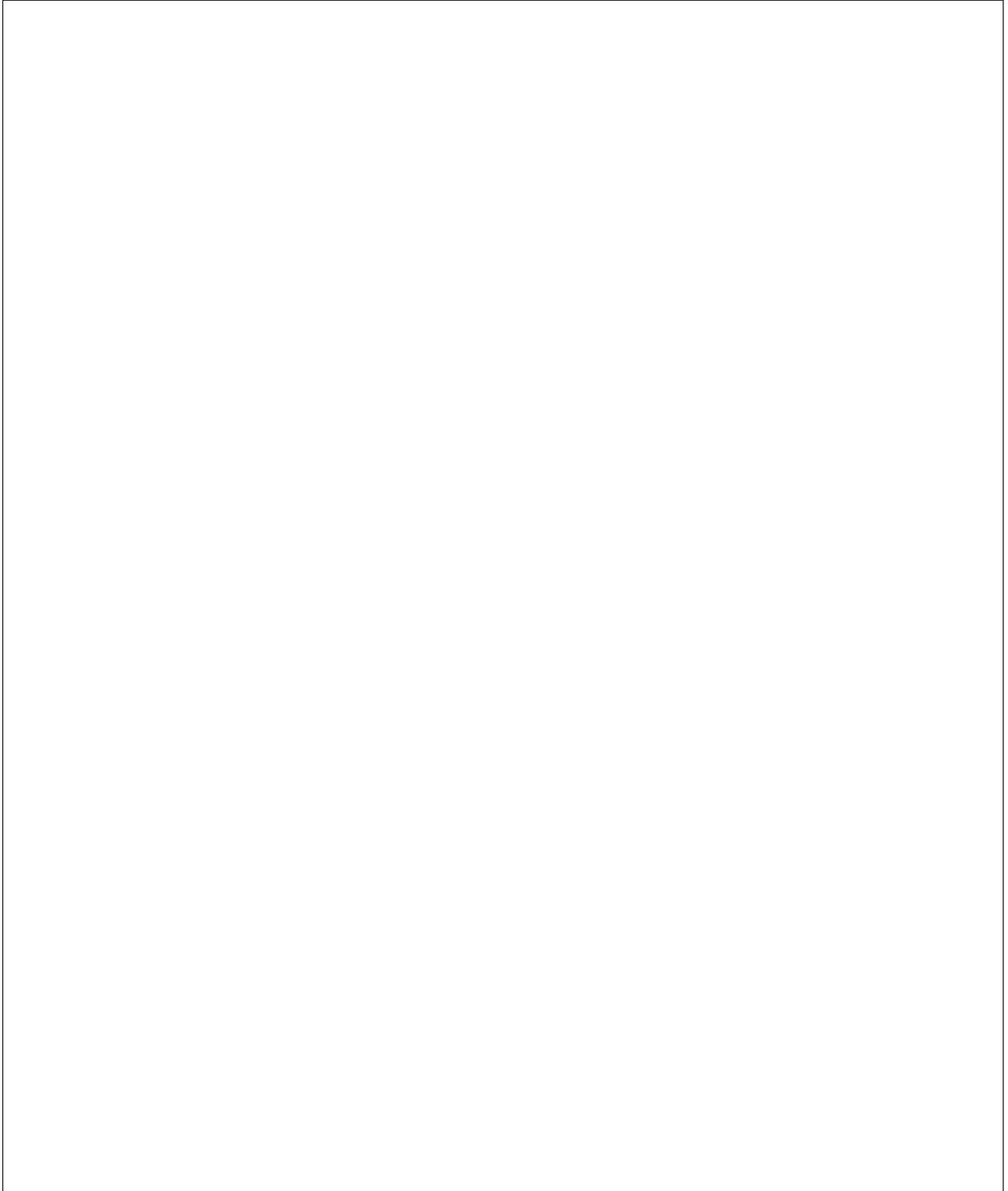
[2]

- (d) Entrants must input their name, address and contact details when using the registration screen. Payment details are accessed by clicking a button on the registration screen.

Create a visualisation diagram to plan the content for the registration screen.

Marks will be awarded for:

- content;
- layout.



[8]

16 The HCI registration screen that is used by entrants to input their name, address and contact details must be tested.

(a) Identify **two** examples of valid test data that the animal charity could use.

1

2

[2]

(b) Describe how invalid (erroneous) test data could be used to test the HCI registration screen.

.....

.....

.....

..... **[2]**

17 As entrants find each statue they use another part of the mobile app HCI to enter details about the statue found.

(a) Identify **two** digital devices that could be used by the entrants to enter the statue details.

1

2 [2]

(b) The entrants can use touch to interact with the HCI on the mobile app.

Describe **one** disadvantage to the entrants of using touch to interact with the HCI.

.....

 [2]

An example of the statue details is shown below.

Entry number	DT124
When found	02/09/2025
Statue ID	25
Location	42 The High Street

(c) Complete the table to show the data types that are used when entering the details about the statue. Justify your choice.

	Data Type	Justification
Entry number		
When found		
Statue ID		

[9]

18 The discovery trail has finished and the statues will be sold at an event to raise more money for the animal charity. A digital presentation will be created which shows:

- details about each statue, including an image;
- the results of the discovery trail;
- money raised for the charity.

Discuss the suitability of the animal charity using a digital presentation to communicate this information.

In your answer you **must** consider:

- the purpose of the digital presentation;
- the advantages and disadvantages to the animal charity of using the digital presentation.

[9]

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END OF QUESTION PAPER

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