

OXFORD CAMBRIDGE AND RSA EXAMINATIONS

Monday 19 May 2025 – Afternoon

Level 1/Level 2 Cambridge National in IT

R050/01 IT in the digital world

**Time allowed: 1 hour 30 minutes
plus your additional time allowance**

No extra materials are needed.

Please write clearly in black ink.

Centre number

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Candidate number

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First name(s) _____

Last name _____

READ INSTRUCTIONS OVERLEAF



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 [].

ADVICE

Read each question carefully before you start your answer.

SECTION A

- 1 Identify the design tool that would include a process box.

Tick (✓) ONE box only. [1]

A Flow chart

☐

B Mind map

☐

C Visualisation diagram

☐

D Wireframe

☐

- 2 Identify ONE hardware consideration when designing a Human Computer Interface (HCI).

_____ [1]

- 3 Identify ONE digital platform that could be used to store stock records.

_____ [1]

- 4 Complete the following sentence using TWO terms from the list below:**

**double entry
format check
manual checking
range check.**

Data verification is carried out using

_____ and _____

tools. [2]

- 5 A portable USB flash drive is ONE type of external storage device.**

Identify TWO OTHER external storage devices.

1 _____

2 _____ [2]

- 6 Identify the validation tool that checks for the correct number of characters during data entry.**

_____ [1]

7 What does 2FA stand for?

_____ [1]

8 Identify the type of malware that displays unwanted advertisements on a mobile device.

_____ [1]

9 Identify the legislation that covers the physical use of computer hardware for work purposes.

_____ [1]

10 What is Voice over Internet Protocol (VoIP) used for?

_____ [1]

11 Which of the following is an example of an audience demographic?

Tick (✓) ONE box only. [1]

A Accessibility

☐

B Biometric

☐

C Pretexting

☐

D Smartphone

☐

12 Draw a line to link the Internet of Everything (IoE) interactivity to the correct example.

You will only use TWO examples to complete this task. [2]

**IOE
INTERACTIVITY**

**Device to
device (D2D)**

**Human to
device (H2D)**

EXAMPLE

**Interaction with a digital
assistant**

Creating an infographic

**Laptop wirelessly sending
instructions to a printer**

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SECTION B

A wearable fitness device allows a user to track their activity levels. One type of fitness device can be worn on the wrist of the user. The device can provide the user with a range of information including:

date and time

number of steps taken each day

number of active minutes each day.

13 The wearable fitness device uses a Human Computer Interface (HCI).

(a) Explain the purpose of having a HCI within the wearable fitness device.

[2]

(b) Explain TWO disadvantages of having a HCI within the wearable fitness device.

1 _____

2 _____

_____ **[4]**

(c) Other than touch, identify ONE method of user interaction that could be used for the HCI on the wearable fitness device.

_____ **[1]**

14 The wearable fitness device links to an account which can be accessed through a new website.

When a user registers and logs on to the website they will be able to see all of their fitness data and information.

(a) Explain TWO disadvantages TO A USER of using the website to view their personal fitness information.

1 _____

2 _____

[4]

- (b) The user will input information when they log on to the website.

Describe the difference between data and information.

[2]

- (c) Data validation will be used during the login process.

Complete the following sentence using TWO words from the list below:

**accuracy
modification
presenting
processing.**

Data validation checks _____

before _____ the data. [2]

- (d) After a user has logged into the new website they can change how the website's homepage will look each time they log in. The user can choose what information they want to see about their activity each day.

The information that can be shown includes:

their name and photograph
the number of steps taken that day
the number of active minutes that day
the amount of sleep they had that day.

Create a wireframe to plan the layout and content for the user's HOMEPAGE in the box on the following page.

Marks will be awarded for:

content
layout. [8]

15 Before the new website is published user testing will be carried out.

The registration page will be tested so that users can only enter:

a valid email address

a valid password with 8–12 characters and a mix of uppercase, lowercase, numbers

a valid username with a minimum of 5 characters.

Complete the table opposite with examples of what test data could be used. Justify the test data you have chosen.

[9]

Test no.	Test description	Test data	Justification
1	Valid email address		
2	Password set up correctly		
3	Valid username has been entered		

16 Users will be able to access the website on different devices.

(a) Identify TWO characteristics of smartphones that make them suitable for accessing the website.

1 _____

2 _____

[2]

(b)

(i) Explain how a username and password will help keep the user's personal fitness information secure.

[2]

(ii) Other than usernames and passwords, identify TWO OTHER logical prevention measures.

1 _____
2 _____
[2]

- 17 The manufacturer of the wearable fitness device is designing an upgrade. It wants to collect data from the registered users about what improvements they would like to see.**

The manufacturer will use an online survey to collect this data which will be stored in the Cloud.

- (a) Explain ONE advantage TO THE REGISTERED USERS of an online survey being used to collect this data.**

[2]

- (b) The survey will include images sourced from other websites. These will be used to show ideas for future upgrades.**

Describe TWO actions that will need to be taken to comply with the Copyright, Designs and Patents Act.

1 _____

2 _____

[4]

- (c) Identify TWO disadvantages TO THE MANUFACTURER of storing the data in a cloud storage location.**

1 _____

2 _____

[2]

18 Users are now able to share access to their wearable fitness device and website account with a personal fitness trainer.

The personal fitness trainer will use the Internet of Everything (IoE) to access the health and fitness data. The data that can be shared includes:

**when users exercise
where users exercise
heart rate
number of active minutes each day.**

Discuss the suitability of using the IoE to share health and fitness data with a personal fitness trainer.

In your answer you MUST consider:

**the purpose of the IoE
the advantages of using the IoE to share health and fitness data
the disadvantages of using the IoE to share health and fitness data. [9]**

[illegible]

END OF QUESTION PAPER

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