

## 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



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

--	--	--	--

First name(s)

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Last name

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#### 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 the design tool that would include a process box.

Tick (✓) **one** box only.

- |                                |                          |
|--------------------------------|--------------------------|
| <b>A</b> Flow chart            | <input type="checkbox"/> |
| <b>B</b> Mind map              | <input type="checkbox"/> |
| <b>C</b> Visualisation diagram | <input type="checkbox"/> |
| <b>D</b> Wireframe             | <input type="checkbox"/> |

[1]

**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.

- A Accessibility
- B Biometric
- C Pretexting
- D Smartphone

[1]

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.

**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

[2]

**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.

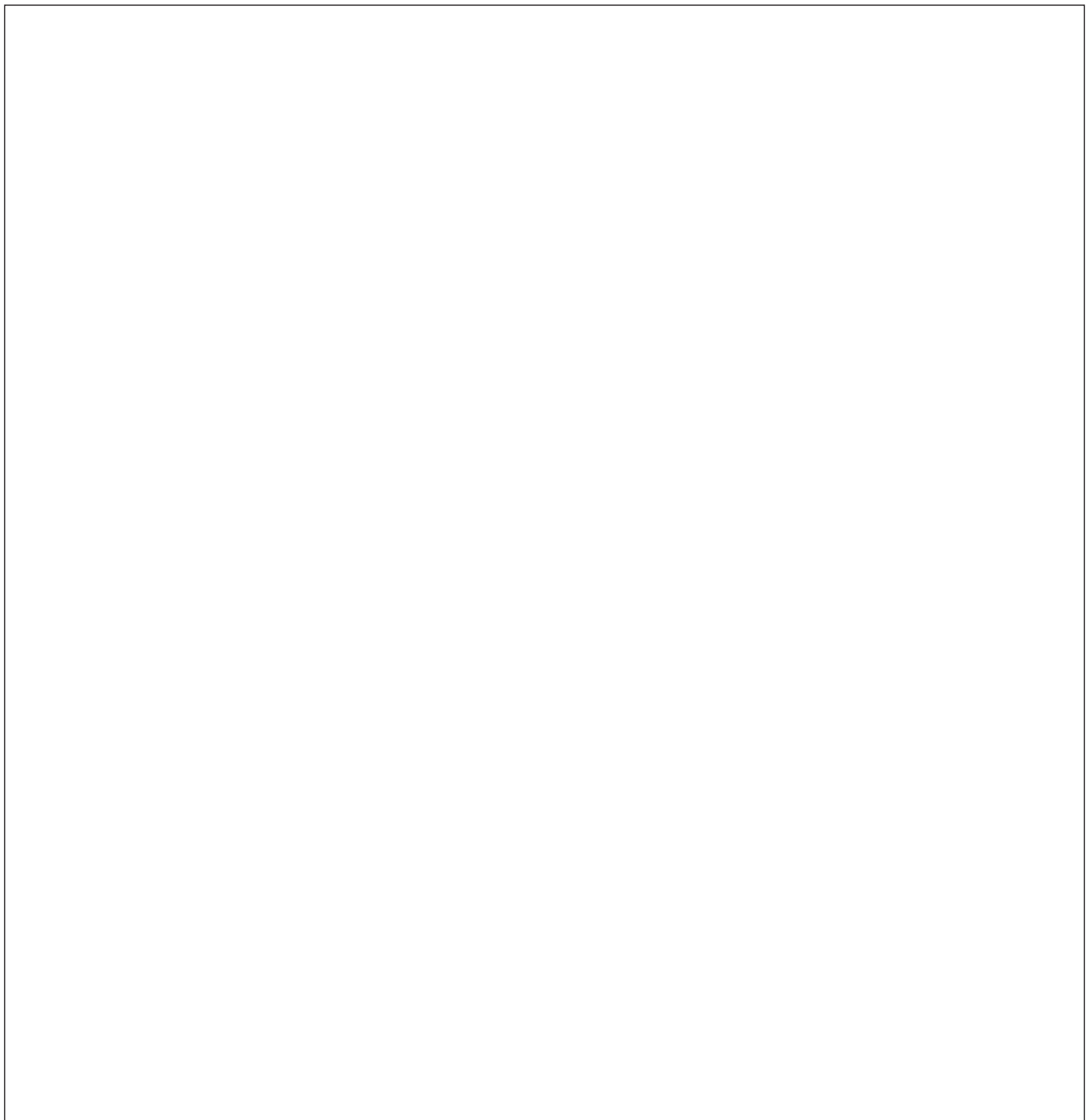
The information that can be shown includes:

- 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**.

Marks will be awarded for:

- content
- layout.



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

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

[9]

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]



.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

**END OF QUESTION PAPER**

**DO NOT WRITE ON THIS PAGE**

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