



GCSE

3540U10-1

TUESDAY, 3 JUNE 2025 – MORNING

DIGITAL TECHNOLOGY – Unit 1

The Digital World

Paper version of on-screen assessment

**1 hour 30 minutes plus your additional
time allowance**

Surname _____

First name(s) _____

Centre Number _____

Candidate Number 0 _____

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.	9	
2.	4	
3.	8	
4.	9	
5.	9	
6.	6	
7.	6	
8.	8	
9.	10	
10.	11	
Total	80	

INSTRUCTIONS TO CANDIDATES

Use black ink, black ball-point pen or your usual method.

Write your name, centre number and candidate number in the spaces provided on the front cover.

Answer ALL questions.

Write your answers in the spaces provided in this booklet. If you run out of space, use the additional page(s) at the back of the booklet, taking care to number the question(s) correctly.

(Turn over)

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.

You are reminded of the necessity for good English and orderly presentation in your answers.

Answer ALL questions.

1. Data can be stored digitally.

(a) Tick (✓) the correct boxes to show the correct data storage unit.

[3 marks]

	TERABYTE	BYTE	GIGABYTE
1024 Mb	☐	☐	☐
1024 Gb	☐	☐	☐
8 bits	☐	☐	☐

(Turn over)

1 (b) (i)

Tick (✓) the correct boxes to show the correct image type. [2 marks]

DESCRIPTION	VECTOR	BITMAP
This image type is made of many tiny parts called pixels.	☐	☐
This image type uses geometric points, lines, curves, shapes or polygons based on mathematical expressions.	☐	☐

(Turn over)

1 (b) (ii)

**State what is meant by the term
'image resolution'. [1 mark]**

(c) (i)

**State what is meant by the term
'image compression'. [1 mark]**

1 (c) (ii)

Describe the difference between lossy compression and lossless compression. [2 marks]

2. There are many ways to interact and connect with digital devices.

(a) State ONE method of interacting with a smart phone. [1 mark]

(b) (i) Name the technology used to give the location of a smart phone. [1 mark]

(Turn over)

2 (b) (ii)

Identify ONE advantage and ONE disadvantage of location sharing on smart phone apps. [2 marks]

Advantage:

Disadvantage:

(Turn over)

3. Broadband is a method for homes to connect to the Internet.

(a) Identify TWO advantages and TWO disadvantages of having broadband connectivity. [4 marks]

Advantage 1:

Advantage 2:

(Turn over)

3 (a) Disadvantage 1:

Disadvantage 2:

3 (b) Describe the difference between ADSL and SDSL. [2 marks]

- 3 (c) Describe the difference between fibre to the cabinet (FTTC) and fibre to the premises (FTTP) connections. [2 marks]**

- 4. Parkwood Vale College has employed Kaleem as a systems analyst. Kaleem's role is to implement a new biometric student registration system.**
- (a) Explain the different changeover methods that Kaleem could use to implement the new biometric student registration system. [6 marks]**

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This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

(Turn over)

4 (b) After staff training, explain TWO guidance documents that would be provided to help with system maintenance. [3 marks]

[illegible]

(Turn over)

5. There are a range of threats to data stored on digital systems.

(a) (i) State what is meant by deliberate damage. Give TWO examples to illustrate your answer. [3 marks]

[illegible]

(Turn over)

5 (a) (ii)

Describe TWO different security measures that could protect networks, systems, transmitted and stored data. [4 marks]

Security measure 1:

(Turn over)

5 (b) Describe the term ‘cyber resilience’.
[2 marks]

6. Katie has decided to sell some items online.

Explain the advantages and disadvantages to Katie of using a consumer to consumer (C2C) marketplace. [6 marks]

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(Turn over)

[illegible]

- 7. Ffion works for a Welsh fashion magazine and has been asked to create an article on famous Welsh people.**
- (a) Explain ONE issue Ffion may encounter with the reliability and accuracy of information found on the Internet. [3 marks]**

7 (b) Explain ONE method Ffion could use to verify the information found online. Use examples. [3 marks]

25

(Turn over)

8. Molly has decided to start a new career as a fashion influencer and plans to use social media for self-promotion.

Explain TWO different types of popular social media platforms and their unique features that Molly could use. For each platform, give ONE benefit and ONE drawback.

[8 marks]

(Turn over)

9. Describe the changes in working practices that have occurred as a result of digital technology, identifying:

- **the changes**
- **the benefits**
- **the drawbacks [10 marks]**

[illegible]

(Turn over)

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- 10. As the newly appointed restaurant manager of the new Parkwood Vale restaurant, you have been asked to look at how Artificial Intelligence (AI) is currently used in restaurants across the UK.**

Explain the various uses of AI in restaurants, as well as the benefits and drawbacks to both customers and the restaurant. [QWC 11 marks]

(Turn over)

END OF PAPER

[illegible]

(Turn over)

[illegible]

(Turn over)

[illegible]

(Turn over)

[illegible]