



GCSE

3540U10-1

TUESDAY, 11 JUNE 2024 – 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.	11	
2.	5	
3.	3	
4.	6	
5.	7	
6.	6	
7.	10	
8.	12	
9.	8	
10.	12	
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.

USE	OPTICAL	CLOUD	MAGNETIC
This storage medium can be used to transfer media to a PC.	<input data-bbox="512 1409 682 1614" type="checkbox"/>	<input data-bbox="512 1018 682 1222" type="checkbox"/>	<input data-bbox="506 569 676 774" type="checkbox"/>
This would allow a user to back-up a large amount of data.	<input data-bbox="1050 1409 1220 1614" type="checkbox"/>	<input data-bbox="1050 1018 1220 1222" type="checkbox"/>	<input data-bbox="1043 569 1213 774" type="checkbox"/>
This allows a user to retrieve their work from any device that has Internet access.	<input data-bbox="1583 1409 1753 1614" type="checkbox"/>	<input data-bbox="1583 1018 1753 1222" type="checkbox"/>	<input data-bbox="1577 569 1747 774" type="checkbox"/>

4

Answer ALL questions.

1. There are many ways to store data digitally.

(a) (i) Tick (✓) the correct boxes, on the table opposite, to show the most suitable storage medium.

[3 marks]

(Turn over)

1 (a) (ii)

Describe ONE disadvantage of using a hard disk drive (HDD) in a laptop compared to a solid state drive (SSD). [2 marks]

1 (b) (i)

**State which image type uses pixels.
[1 mark]**

(ii) State what would be the impact of storing an image at a low resolution, for example 20 DPI rather than 72 DPI. [1 mark]

(Turn over)

1 (c) (i)

Tick (✓) the correct boxes to show which of the following are a movie file extension. [2 marks]

FILE EXTENSION	
.JPG	<input type="checkbox"/>
.MOV	<input type="checkbox"/>
.MP3	<input type="checkbox"/>
.BMP	<input type="checkbox"/>
.WMV	<input type="checkbox"/>

(Turn over)

1 (c) (ii)

Describe the difference between a user downloading a movie and streaming a movie on their digital device. [2 marks]

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

(a) State ONE digital device that uses voice interaction. [1 mark]

2 (b) (i)

**Describe how gesture interaction
can be used in gaming. [2 marks]**

2 (b) (ii)

Identify ONE advantage and ONE disadvantage of gesture interaction in gaming. [2 marks]

Advantage _____

Disadvantage _____

3. Changing working practices have had a big impact on society.

(a) State what is meant by the digital divide. [1 mark]

(b) One factor of the digital divide is the economic factor. Describe how this can have an effect on society.

[2 marks]

(Turn over)

4. The Internet is used by millions of people across the world.

(a) State what the acronym URL stands for. [1 mark]

U _____

R _____

L _____

(b) State what is meant by the Internet. [1 mark]

4 (c) Describe the role of an Internet Service Provider (ISP). [2 marks]

4 (d) Describe how a web server works.

[2 marks]

(Turn over)

5. All companies need to abide by current UK legislation when working with digital devices, data and electronic communications.

(a) (i) State TWO principles of the Data Protection Act 2018. [2 marks]

Principle 1: _____

Principle 2: _____

(Turn over)

5 (a) (ii)

State ONE penalty of breaching the Data Protection Act 2018. [1 mark]

(b) State TWO crimes that the Computer Misuse Act 1990 covers. [2 marks]

Crime 1: _____

Crime 2: _____

(Turn over)

5 (c) Describe what is covered by the Investigatory Powers Act 2016.

[2 marks]

(Turn over)

7. Saul owns a surf school based in West Wales and has decided to invest in some new digital systems for his company.

(a) Explain TWO benefits of how he can use digital devices to promote and improve the performance of his business. Use examples. [6 marks]

25

(Turn over)

8. Samiyah has decided to try to promote her jewellery making business using social media.

(a) Explain TWO different types of popular social media platforms that could be used to promote Samiyah's jewellery making business and how their unique features can be used to promote her business. [6 marks]

(Turn over)

9. Autonomous robots are used in warehouse and distribution centres to select and pack customer orders.

Explain, giving examples, the advantages and disadvantages of using autonomous robots in a distribution centre. [8 marks]

- 10. You have been appointed as the Project Manager to the Parkwood Vale Insurance Company, who are upgrading their existing computer system.**

You will need to use the systems development life cycle to plan this project. The System Investigation and System Analysis stages have already been completed and the new system has been given the go-ahead. Explain, including examples, the next steps that could take place at each remaining stage.

[QWC 12 marks]

(Turn over)

