



General Certificate of Secondary Education

Digital Technology

Unit 2:

Digital Authoring Concepts

[GDG21]

Assessment

**MARK
SCHEME**

- 1 (a) D <h1 style ="color:red;"> Heading </h1> [1]
- (b) B correct data, incorrect data, null data, extreme data [1]

2 (a)

Statement	Tick (✓)
Smart phone company	
The shop's customers	✓
The app developers	

[1]

More than one Tick – 0 marks awarded

- (b) Incomplete prototypes can be used to help discuss the user requirements with the end user.
 Sometimes the prototype can be used to get feedback from the end user.
 This is then used to make changes to the prototype until a completed version of the application is produced. [2]

(c)

Design Task	Design Tool Used
A file containing details about the validation methods used and details of structure of database tables	data dictionary
Illustrates the pathway between hyperlinks and pages of a multimedia application	navigation structure diagram
A diagram which shows the layout of the pages/ screens of a multimedia application	wireframe
Can show one-to-one, one-to-many or many-to-many links between database tables	entity- relationship diagram

[4]

- (d) Any **three** from:
 Windows [1]
 Icon [1]
 Menu/Mouse [1]
 Pointer/Pulldown Menu [1]
 (WIMP acceptable) [3]

- (e) Advantages
- Any **two** from:
 Intuitive/user friendly/no need to learn complicated commands/ built-in help [1]
 User does not need to understand how computer operates [1]
 Provision of shortcuts for experienced users [1] [2]

Disadvantages

- Any **two** from:
 Increased processing power/RAM needed [1]
 Increased storage needed [1]
 More powerful graphics card needed [1]
 Restrictive for experienced users [1] [2]

- (f) Voice data entry/speech recognition [1]

AVAILABLE MARKS

2

15

- 3 (a) Reduce load time of application [1]
Takes up less web space [1] [2]

(b)

Optimised File Type	Use		
AVI	Video	Sound	Image
JPEG	Video	Sound	Image
MP3	Video	Sound	Image
PNG	Video	Sound	Image

[4]

More than one option circled per row – 0 marks for that row

- (c) (i) Any **two** from:
Portable document format [1]
Compressed file format [1]
Format which can be accessed on any platform [1] [2]

- (ii) Software/code [1] adds additional functionality to
existing application [1] [2]

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- 4 (a) (i) Security concerns (description of any appropriate security
concern relating to location sharing) [1]

- (ii) May find them intrusive / privacy concerns if others are able
to view your screen [1]

- (iii) Transmit/receive video and audio [1] over the Internet [1] [2]

- (iv) (Video/sound streaming) requires large bandwidth [1]
increased cost [1] [2]

- (b) Any **two** impacts with valid reason, e.g.
May require high quality graphics cards [1] / reason [1]
May require processor [1] / reason [1]
May require more RAM [1] / reason [1] [4]

- (c) **Level 0 [0]**
Answer is not worthy of credit.

Level 1 ([1]–[2])

The candidate describes one [1] or two [2] advantages or disadvantages.
The candidate makes limited use of spelling, punctuation and grammar.
The meaning of the text is not always clear. The candidate demonstrates a
limited form and style appropriate to the question. The organisation of the
answer is limited. There is little use of specialist terms.

Level 2 ([3]–[4])

The candidate describes three [3] or four [4] advantages/disadvantages (to a max of 2 each). The candidate makes satisfactory use of spelling, punctuation and grammar. The meaning of the text is usually clear. The candidate demonstrates a satisfactory form and style appropriate to the question. The organisation of the answer is satisfactory. There is some use of specialist terms.

Level 3 ([5]–[6])

The candidate describes five [5] or six [6] advantages/disadvantages (to a max of 3 each). The candidate makes good use of spelling, punctuation and grammar. The meaning of the text is always clear. The candidate demonstrates good form and style appropriate to the question. The organisation of the answer is good. There is good use of specialist terms.

Answers may include reference to:

Advantages:

- Use of reviews or products/sellers before buying
- Ability to check stock levels/availability before buying
- Search facilities to locate exact product
- Secure payment methods
- Use of notifications/alerts re special offers/postage, etc.
- Connectivity with other social media applications, e.g. can share links
- Interactive elements – see 360 image of product
- Use of shopping carts/wish lists to save items/checkout options (e.g. click and collect)

Disadvantages:

- Multimedia elements take long time to download
- Interactive elements may not be portable/accessible on all devices
- Intrusiveness of alerts
- Need access to e-payment methods
- Difficulty finding items if wrong key words used [6]

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- 5 (a) (i)** Using software (example of software also acceptable) to create an application [1] that contains more than one media type (text, images, video, audio, animation) [1] [2]
- (ii)** Text item on page [1] containing hyperlink (to related content) [1] [2]
- (b) (i)** Sequencing [1]
- (ii)** Selection [1]
- (iii)** External file/can included between the <head> </head> tags [1]

(c)

Statement	TRUE or FALSE
In Example A the 'statements to be executed' will be carried out at least once	FALSE
In Example B the 'statements to be executed' may never be carried out	FALSE
In Example B the 'statements to be executed' will be carried out more than once	FALSE

[3]

			AVAILABLE MARKS	
	(d)	User interaction (or example of user interaction such as button click) [1] control what appears next on the screen [1] or reference to the fact that it determines the flow of the program [1]	[2]	12
6	(a)	(i) Bitmap image/uncompressed file type	[1]	
		(ii) Image size Help determine how much space image will take up on web page when displayed in browser	[1]	
		File size Know how much web space the image takes up on the web server	[1]	
	(b)	Any four from: Sound [1] Contents of individual frames [1] Duration of individual frames [1] Movie duration [1] Details of transitions between frames [1] Special effects [1] Details of credits/title screen [1]	[4]	
	(c)	Use folders [1] reason [1] Rename pages/assets [1] reason [1]	[4]	11

7 (a) Hypertext Mark Up Language

[1]

AVAILABLE MARKS

(b)

Tag	Statement 1	Statement 2	Statement 3
<title> </title>	Provides a title for a web page when it is added to browser favourites True/False	Displays a title for a web page at the top of the browser window True/False	Displays a graphic banner at the top of the web page when it is loaded True/False
<p> </p>	Displays a paragraph of text in a different font from the remainder of the text on a web page True/False	Adds space to a web page around the start and end of a paragraph of text True/False	Highlights text on a web page which is used to locate the page using a search engine True/False
<body> </body>	Is the first tag which appears on the HTML document True/False	Is the last tag which appears on the HTML document True/False	Contains all of the visible content of the web page True/False

[9]

(c) (i)

< /a >

[1]

(ii) 50 (pixels) × 50 (pixels)

[1]

(iii) or

[1]

(iv) alt

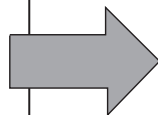
[1]

(d)

```

<!DOCTYPE html>
<   html   > [1]
<body>
<p>List of Names :</p>
<   ol   > [1]
  <li>Simon</li>
  <li>Sarah</li>
  <li>Alex</li>
<   /ol   > [1]
</body>
</html>

```



List of Names

1. Simon
2. Sarah
3. Alex

[3]

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(k)	Statement	True or False
	Data Redundancy is the unnecessary duplication of data in a database	True [1]
	Data Redundancy increases the filesize of a database	True [1]

AVAILABLE MARKS

20

9 (a) Testing and making changes [1] at different stages in development [1] [2]

(b) (i) Carried out on completed system [1]
Help ensure correct outputs produced / user requirements met [1] [2]

(ii) Any **two** from:
Carried out after alpha testing [1]
Carried out before final version of s/w released [1]
Carried out by real users [1]/selected members of target audience [1] [2]

(iii) Any **two** from:
Carried out before beta testing [1]
Simulate use by real users [1]
Use black box testing methods [1] [2]

(c) Any **two** from:
Asset operation/ensuring all multimedia elements load correctly [1]
Load times [1]
Scripted elements/ensuring all interactive elements work correctly [1] [2]

10

10 (a) Any **two** from:
To improve the product being developed [1]
To identify problems with the product early in the development process [1]
To gain feedback from the end user during development [1] [2]

(b) Any **two** from:
To enable improvement to be made at an early stage [1]
Changes are less costly if made early in the development process [1]
Allows continuous user feedback [1] [2]

(c) (i) Ensure the system fulfils the user requirements [1]

(ii) Any **two** from:
Test on a range of hardware platforms [1]
Test on a range of software platforms [1]
Appropriate example [1] [2]

7

Total

120