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**SUBJECT:** **Information Technology**  
**PAPER NUMBER:** Controlled – Unit 2  
**DATE:** 13<sup>th</sup> May 2025  
**DURATION:** 10:00 a.m. to 11:35 a.m.

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**THIS PAPER SHOULD BE RETURNED TO THE INVIGILATOR  
AFTER THE EXAMINATION.**

**Name of candidate** \_\_\_\_\_

**I.D. number** \_\_\_\_\_

**School** \_\_\_\_\_

**Class** \_\_\_\_\_

Answer **ALL** questions in the space provided.

### Scenario

- Thomas will soon open a video game store.
- He is thinking of different ways to promote the store.

### Question 1

**K-1 (4 marks)**

Thomas is wondering about the types of media that he can include in the promotional material.

a. List **TWO** different types of media, apart from 'images', 'audio', and 'video'.

Media 1: \_\_\_\_\_ (0.5)

Media 2: \_\_\_\_\_ (0.5)

b. Relate the following media with **ONE** of the human senses.

Images: \_\_\_\_\_ (0.5)

Video: \_\_\_\_\_ (0.5)

c. Identify **TWO** different hardware devices that are required to develop or experience each of the following types of media, apart from keyboard and mouse. Make sure you identify different hardware devices for the different types of media.

Hardware 1 required for Images: \_\_\_\_\_ (0.5)

Hardware 2 required for Images: \_\_\_\_\_ (0.5)

Hardware 1 required for Video: \_\_\_\_\_ (0.5)

Hardware 2 required for Video: \_\_\_\_\_ (0.5)

### Question 2

**K-2 (4 marks)**

- Thomas is working on the logo of the video game store.
- This logo will be included on all promotional material.

a. State **FOUR** main characteristics of image formats, apart from 'resolution' and 'colour depth'.

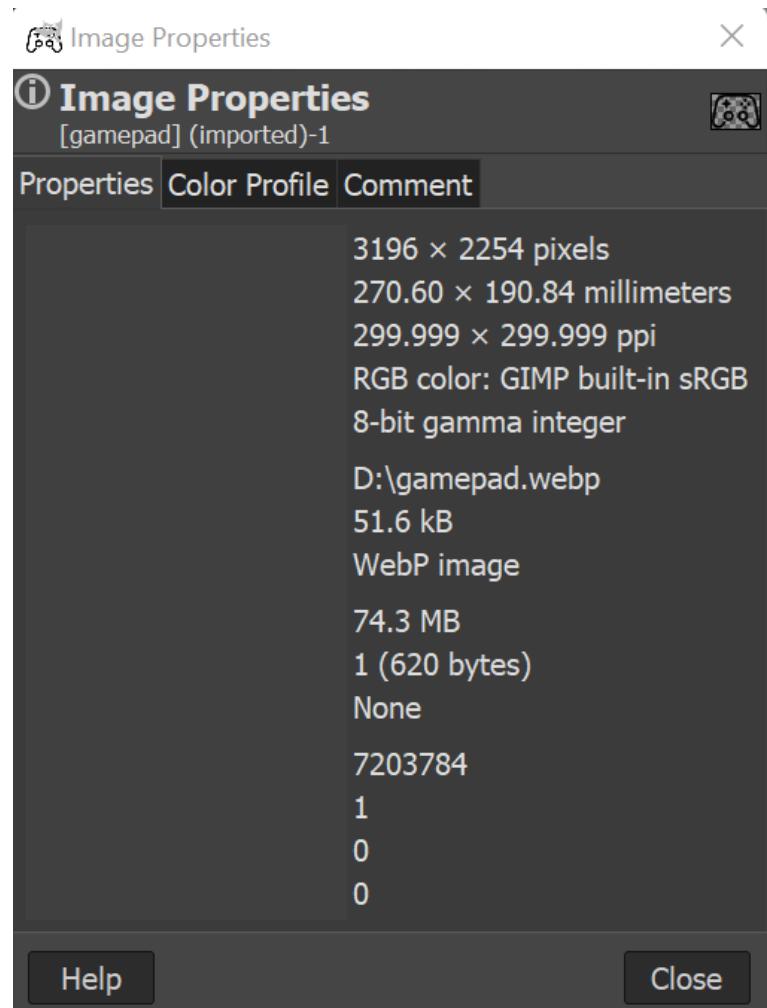
Characteristic 1: \_\_\_\_\_ (0.25)

Characteristic 2: \_\_\_\_\_ (0.25)

Characteristic 3: \_\_\_\_\_ (0.25)

Characteristic 4: \_\_\_\_\_ (0.25)

b. The following screenshot shows some properties of a .WebP image file.



From the above screenshot, identify the following image characteristics.

- Resolution: \_\_\_\_\_ (0.5)
- Colour depth: \_\_\_\_\_ (0.5)

c. Describe 'resolution' and 'colour depth' as characteristics of WebP images.

Resolution: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ (1)

***This question continues on next page.***

Colour depth: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_ (1)

**Question 3****K-4 (4 marks)**

- Thomas wants to have a theme song for the store.
- His goal is for people to hear the song and think of his store.
- He wants to learn more about audio files and their characteristics.

a. Name **TWO** audio file characteristics.

Characteristic 1: \_\_\_\_\_ (0.5)

Characteristic 2: \_\_\_\_\_ (0.5)

b. Relate the following **FOUR** audio file types to the statement which best states their characteristics.

	AAC	ALAC	LPCM	MP3
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i. An uncompressed audio file type typically used to store raw audio data. \_\_\_\_\_ (0.25)

ii. This audio file uses lossless compression and is commonly used on Apple devices. \_\_\_\_\_ (0.25)

iii. A modern and efficient lossy audio file which produces sound of a higher quality when compared to other lossy compressed audio files for the same file size. \_\_\_\_\_ (0.25)

iv. An older audio file format that is compatible with most devices and uses lossy compression producing high to medium sound quality. \_\_\_\_\_ (0.25)

c. Describe the **TWO** audio file characteristics you named in Question 3a.

Characteristic 1: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (1)

Characteristic 2: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (1)

**Question 4**

**K-5 (4 marks)**

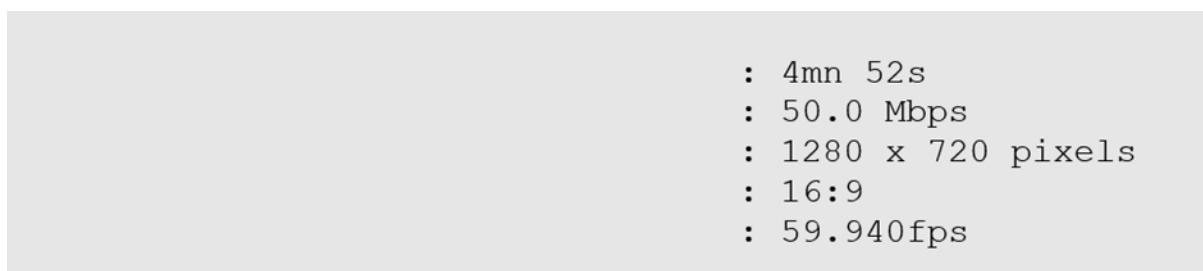
- Thomas is going to create a video to advertise the store.
- He found out that video files have different characteristics.

a. Name **TWO** different video file characteristics, apart from 'aspect ratio' and 'frame dimensions'.

Characteristic 1: \_\_\_\_\_ (0.5)

Characteristic 2: \_\_\_\_\_ (0.5)

b. The following screenshot shows some properties of a .MPEG4 video file.



Properties of a video file:

- : 4mn 52s
- : 50.0 Mbps
- : 1280 x 720 pixels
- : 16:9
- : 59.940fps

***This question continues on next page.***

From the screenshot in the previous page, identify the value of the aspect ratio and the frame dimensions, of the video file.

Aspect ratio: \_\_\_\_\_ (0.5)

Frame dimensions: \_\_\_\_\_ (0.5)

c. Describe the following **TWO** video characteristics:

i. Aspect ratio: \_\_\_\_\_

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(1)

ii. Frame dimensions: \_\_\_\_\_

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(1)

### Question 5

**C-3 (6 marks)**

- Thomas intends to use the theme song and the promotional advert online on various social media platforms, such as Instagram and Facebook.
- He is still undecided about the audio and video file formats he should use.

a. Explain **ONE** limitation of .WAV audio files and **ONE** limitation of .AVI video files with respect to using such file types on social media platforms.

Explanation of .WAV limitation:

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(1)

## Explanation of .AVI limitation:

b. Justify why .MP3 audio files and .MPEG4 video files would be more appropriate than .WAV and .AVI files, for uploading content online on social media platforms.

### Justification of .MP3 audio file:

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(1)

### Justification of .MPEG4 video file:

***This question continues on next page.***

c. Justify why .MP4 video containers are more appropriate than DivX containers for sharing Thomas' promotional advert on social media. Justifications should be based on compatibility and file size.

### Justification based on compatibility:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(1)

#### Justification based on file size:

\_\_\_\_\_ (1)

(1)

## Question 6

**K-7 (4 marks)**

Thomas wants to create a website to help grow his business.

a. List **TWO** basic elements of a website apart from 'header' and 'main content'.

### Element 1:

(0.5)

## Element 2:

(0.5)

b. The image on the next page shows a possible design for the website.

Identify the **TWO** basic website elements you listed in Question 6a by drawing a box around these elements in the image on the next page. Each website element should be labelled by writing its name next to it. (1)

The screenshot shows the Youplay website. At the top, there is a navigation bar with links for 'DEMONS', 'STORE', 'BLOG', and 'PAGES'. The main content features a large image of the game 'Journey'. Below the image is a 'Purchase' button. To the right of the main image, there is a smaller image of a character with a long, flowing coat. Below the main image, there are four smaller images representing other games: 'Flower', 'Dream', 'Broken Age', and 'World of Goo'. Each game has a star rating and a price: Flower (4 stars, £20.00), Dream (4 stars, £34.99), Broken Age (5 stars, £0.00), and World of Goo (4 stars, £29.99). At the bottom of the page, there is a section titled 'Why Buy from Us' with four boxes: 'Payment' (VISA logo, 'More than 10 payment systems'), 'Games' (game controller icon, 'A large number of games'), 'Cheap' (dollar sign icon, 'Lowest prices on the Internet'), and 'Community' (people icon, 'The largest gaming community'). The footer of the page includes the text 'nK © 2019. All rights reserved'.

(Adapted from: <https://wp.nkdev.info/youplay/demo-light/>)

c. Outline the purpose of the following **TWO** basic website elements, header and main content.

i. Header: \_\_\_\_\_

\_\_\_\_\_ (1)

ii. Main Content: \_\_\_\_\_

\_\_\_\_\_ (1)

***Please turn the page.***

**Question 7****C-4 (6 marks)**

- Thomas would like the website to:
  - share information about the video game store with his customers;
  - let customers know about the products for sale;
  - allow buying of products through the website.
- The website is intended for adults and needs to be user-friendly.
- It should have features, such as search facilities, sorting facilities and filters that make online shopping easier so that the displayed products meet the needs of the customers.

The following are two possible designs for the header and the main content.



Header 1

(Adapted from: <https://www.wordstream.com>)

Game
Monday - Friday:  
8:00 AM - 9:00 PM


My Cart: 2,661.59 USD

Header 2

(Adapted from: <https://workdo.io>)

Showing 1-12 of 15 results
Default sorting

Bravo Echo Charlie  
games

£45.00

Danger Zone  
consoles, figures, games

£65.00

Explore the Firefly  
games

£35.00

**Shop Search**

**Filter by price**

Price: £30 — £100

**Most Popular**

Falldown Republic  
£95.00

Invasion  
£65.00

Prototype Tee  
£65.00

Main Content 1

(Adapted from: <https://eldritch.qodeinteractive.com/shop-home/#>)

View:  Grid  List

Show   per page

<p>★★★★★</p>  <p>Call of Duty- Advanced Warfare - Xbox 360</p> <p>\$16.00 <del>\$20.00</del> -20%</p> <p><input type="button" value="ADD TO CART"/></p>	<p>★★★★★</p>  <p>Destiny - Standard Edition - PlayStation 3</p> <p>\$19.00</p> <p><input type="button" value="ADD TO CART"/></p>	<p>★★★★★</p>  <p>The Witcher 2- Assassins Of Kings - Silver...</p> <p>\$20.00</p> <p><input type="button" value="ADD TO CART"/></p>
<p>★★★★★</p>  <p>Halo 4- Game of the Year Edition</p> <p>\$20.00</p> <p><input type="button" value="ADD TO CART"/></p>	<p>★★★★★</p>  <p>Mortal Kombat X Fight Pad for PlayStation...</p> <p>\$21.60 <del>\$27.00</del> -20%</p> <p><input type="button" value="ADD TO CART"/></p>	<p>★★★★★</p>  <p>Turtle Beach Ear Force XLa Gaming Headset...</p> <p>\$24.00</p> <p><input type="button" value="ADD TO CART"/></p>

Main Content 2  
(Adapted from: <https://demo.templatemonster.com/>)

a. Select the most appropriate header and main content for this website.

Header: \_\_\_\_\_ (1)

Main content: \_\_\_\_\_ (1)

***This question continues on next page.***

b. Justify the choice of the header and main content you selected in Question 7a.

Justification of Header: \_\_\_\_\_  
\_\_\_\_\_

Justification of Main Content: \_\_\_\_\_  
\_\_\_\_\_

c. Given that the website for the video game store will allow online shopping, argue whether it would be better for Thomas to create a static website or a dynamic one.

**Question 8****K-9 (4 marks)**

Thomas intends to develop the website using HTML.

a. Define HTML and its use.

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(1)

b. Different HTML tags are used when developing websites.

i. List **ONE** example of the following tags, apart from <br> and <header>.

HTML element tag: \_\_\_\_\_ (0.25)

HTML 5 tag: \_\_\_\_\_ (0.25)

ii. List **TWO** examples of HTML basic tags, apart from <html> and <a>.

HTML basic tag 1: \_\_\_\_\_ (0.25)

HTML basic tag 2: \_\_\_\_\_ (0.25)

c. Relate the following **FOUR** attributes to the appropriate statement which defines their use in relation to HTML tags.

	class	href	id	target
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i. This attribute is used with the <a> tag to specify where the linked file will open. \_\_\_\_\_ (0.5)

ii. This attribute is used with HTML elements to link them to a specific CSS style, so that all elements have the same look. \_\_\_\_\_ (0.5)

iii. This attribute is used to uniquely identify HTML elements. \_\_\_\_\_ (0.5)

iv. This attribute is used with the <a> tag to specify the URL of the webpage that the link points to. \_\_\_\_\_ (0.5)

***Please turn the page.***

**Question 9****K-10 (4 marks)**

Thomas will use CSS alongside HTML to create the website.

a. Define CSS and its use.

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(1)

b. Distinguish between inline and internal CSS.

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(1)

c. The following lines of code are to be included in the CSS of the website.

```
* {  
    font-family: Arial, sans-serif;  
}  
  
#header {  
    background: lightgray;  
    width: 100%;  
    height: 60px;  
}
```

Outline the specific use of the following CSS selectors and declarations as utilised in the code above.

i. \* (selector): \_\_\_\_\_

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(0.5)

ii. # (id selector): \_\_\_\_\_  
\_\_\_\_\_ (0.5)

iii. background (declaration): \_\_\_\_\_  
\_\_\_\_\_ (0.5)

iv. height (declaration): \_\_\_\_\_  
\_\_\_\_\_ (0.5)

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