



L-Università
ta' Malta

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE
EXAMINATIONS BOARD

**SECONDARY EDUCATION CERTIFICATE LEVEL
2023 SUPPLEMENTARY SESSION**

SUBJECT: **Information Technology**
PAPER NUMBER: Synoptic – Unit 2
DATE: 1st November 2023
TIME: 5:30 p.m. to 7:35 p.m.

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

For examiners' use only:

Question	1	2	3	4	5	6	7	8	Total
Score									
Maximum	6	12	8	8	8	8	8	12	70

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

Scenario

- 'Digi Market' is a local digital marketing company.
- Its aim is to help companies promote their business through different multimedia systems.

Question 1

K-1 (6 marks)

Different types of media are used when developing multimedia systems.

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

Media 1: _____ (1)

Media 2: _____ (1)

b. Relate each type of media you listed in Question 1a with **ONE** of the human senses.

Human sense related to Media 1: _____ (1)

Human sense related to Media 2: _____ (1)

c. Identify **ONE** hardware device required when developing or using the following media. A different hardware device should be identified for each medium:

i. Images: _____ (0.5)

ii. Video: _____ (0.5)

iii. Media 1 (as listed by you in Question 1a): _____ (0.5)

iv. Media 2 (as listed by you in Question 1a): _____ (0.5)

6

Question 2

C-1 (12 marks)

- Joe is the owner of a shoe shop which will be opening next week.
- At the shop one will find different types of shoes suitable for kids, youths and adults.
- Joe asked 'Digi Market' to develop a multimedia system to inform online users about the opening of the shop.
- 'Digi Market' are undecided about which multimedia system should be developed in time for the shop's opening.

a. Select the most appropriate multimedia system, from social media and website, to promote the opening of Joe's shoe shop. Consider the audience and the time-limitation in your selection.

Most appropriate multimedia system: _____ (4)

Question 3

K-2 (8 marks)

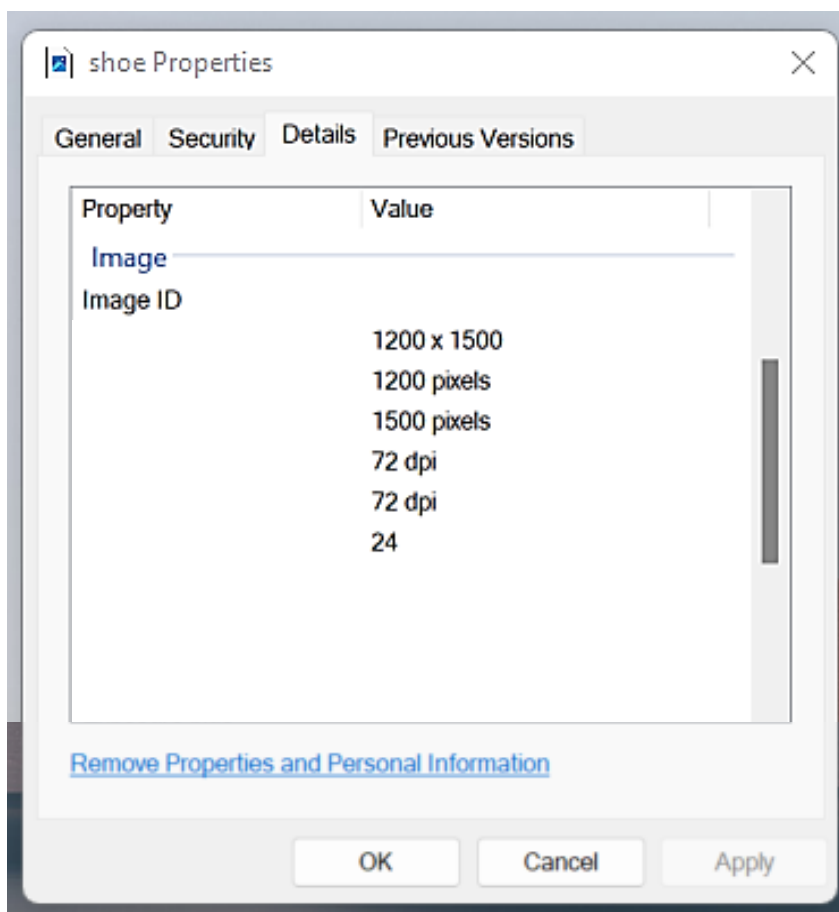
'Digi Market' will be including images in the multimedia system to be developed for Joe's shoe shop.

a. State **TWO** main characteristics of image formats, apart from colour depth and image size.

Characteristic 1: _____ (1)

Characteristic 2: _____ (1)

- b. • Joe gave 'Digi Market' a JPEG image which he would like to include in the multimedia system.
- The screenshot below shows the properties of this image.



From the screenshot above, identify the value of the following image characteristics:

Colour depth: _____ (1)

Image size: _____ (1)

c. Describe the following **TWO** characteristics of JPEG images:

i. Colour depth: _____

_____ (2)

ii. Image size: _____

_____ (2)

8

Please turn the page.


Question 4



K-3 (8 marks)

'Digi Market' intends to apply effects on the image provided by Joe.

- a. The images below show the results after some effects were applied to the original image. Match the image effects listed in the box below with the image representing the effect.

Sketch	Opacity
--------	---------

Original image	
	
<i>(Source: https://www.pexels.com)</i>	

	
Effect 1: _____ (1)	Effect 2: _____ (1)

- b. Describe the following image effects.

i. Sketch: _____

_____ (1)

ii. Opacity: _____

_____ (1)

c. Describe the output obtained when applying minimum and maximum intensities to the opacity image effect.

Opacity minimum intensity: _____

_____ (2)

Opacity maximum intensity: _____

_____ (2)

8

Question 5

K-5 (8 marks)

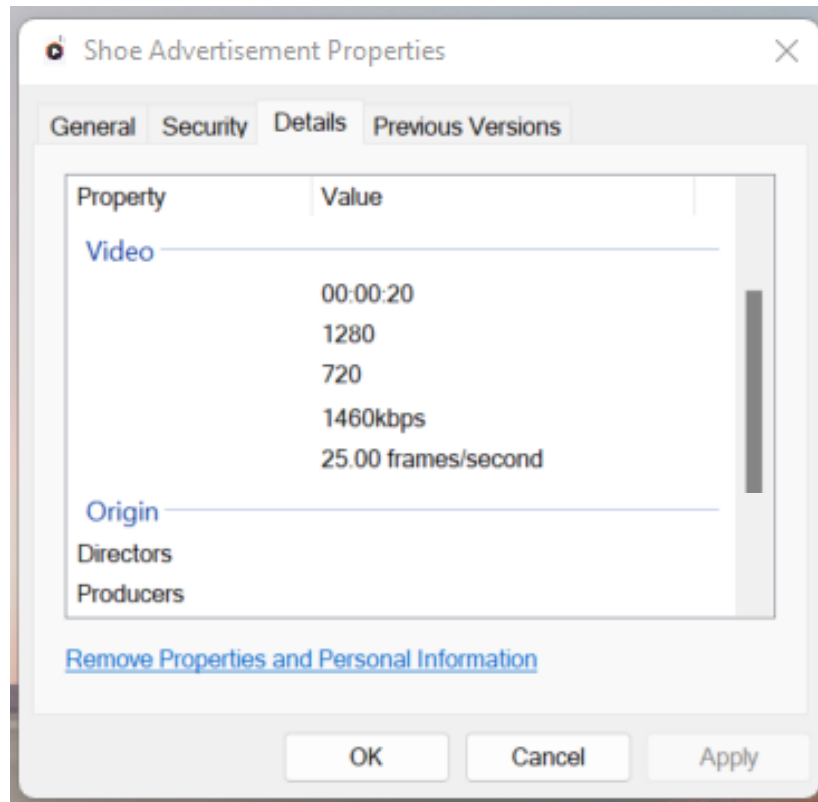
Joe would also like to include a short video clip in the chosen multimedia system.

a. Name **FOUR** video file characteristics, apart from bitrate and duration.

- Characteristic 1: _____ (0.5)
- Characteristic 2: _____ (0.5)
- Characteristic 3: _____ (0.5)
- Characteristic 4: _____ (0.5)

This question continues on next page.

b. The screenshot below shows the properties of the 'Shoe Advertisement.mp4' video file.



From the screenshot given above, identify the value of the bitrate and the duration for the given video file.

Value of Bitrate: _____ (1)

Duration: _____ (1)

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

i. Bitrate: _____

_____ (2)

ii. Duration: _____

_____ (2)

8

Question 6

K-7 (8 marks)

- Joe’s friend, Peter, is the manager of a supermarket.
- Peter would like to give a new look to his supermarket’s website.
- Joe told Peter to have a look at some websites and then speak to ‘Digi Market’.

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

Element 1: _____ (1)

Element 2: _____ (1)

b. Identify the header and the main content elements of a website, by drawing a circle around them in the image below. Label each element by writing its name next to the circle. (2)



(Source: <https://www.experienceux.co.uk/ux-blog/an-online-grocery-shopping-experience>)

This question continues on next page.

c. Outline the purpose of the header, the main content and the other **TWO** elements you listed in Question 6a.

Purpose of header: _____

_____ (1)

Purpose of main content: _____

_____ (1)

Purpose of element 1: _____

_____ (1)

Purpose of element 2: _____

_____ (1)

8

Question 7

K-8 (8 marks)

- Peter took Joe’s suggestion and went to ‘Digi Market’.
- The employees at ‘Digi Market’ asked Peter whether he would like the website to be static or dynamic.

a. Define the terms ‘static website’ and ‘dynamic website’.

Static website: _____

_____ (1)

Dynamic website: _____

_____ (1)

b. Indicate **TWO** tools, apart from HTML, which are required to create static and dynamic websites.

Tools required to create static websites:

Tool 1: _____ (0.5)

Tool 2: _____ (0.5)

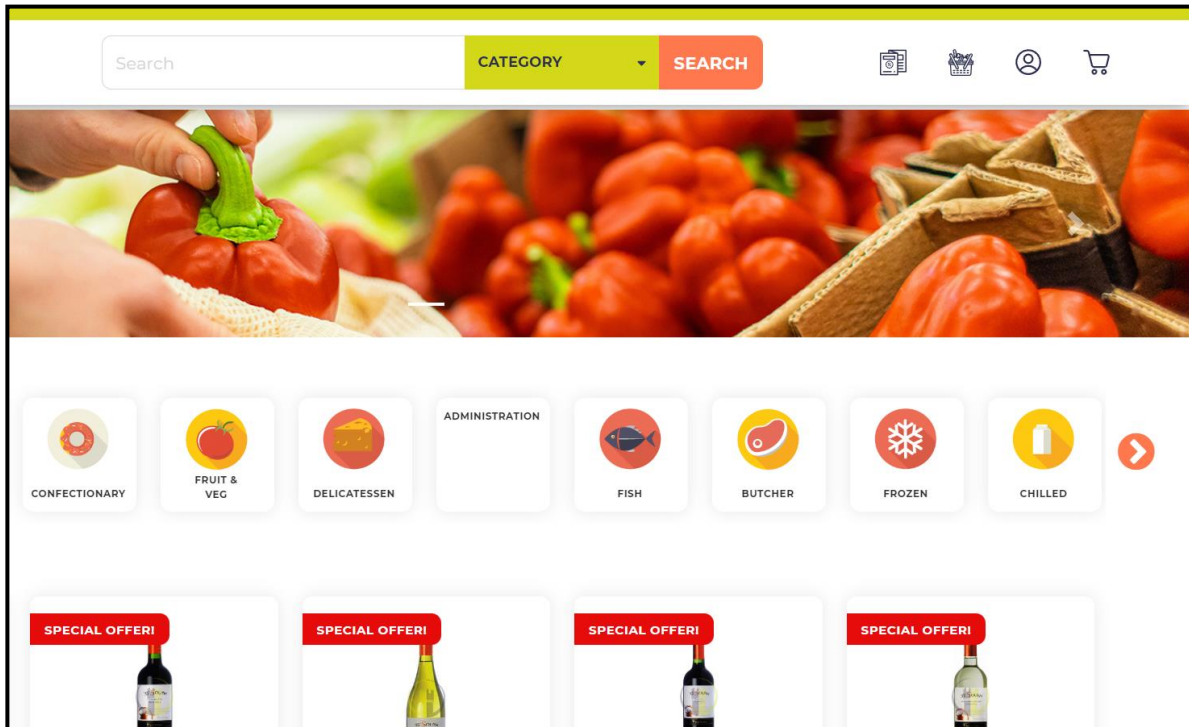
Tools required to create dynamic websites:

Tool 1: _____ (0.5)

Tool 2: _____ (0.5)

This question continues on next page.

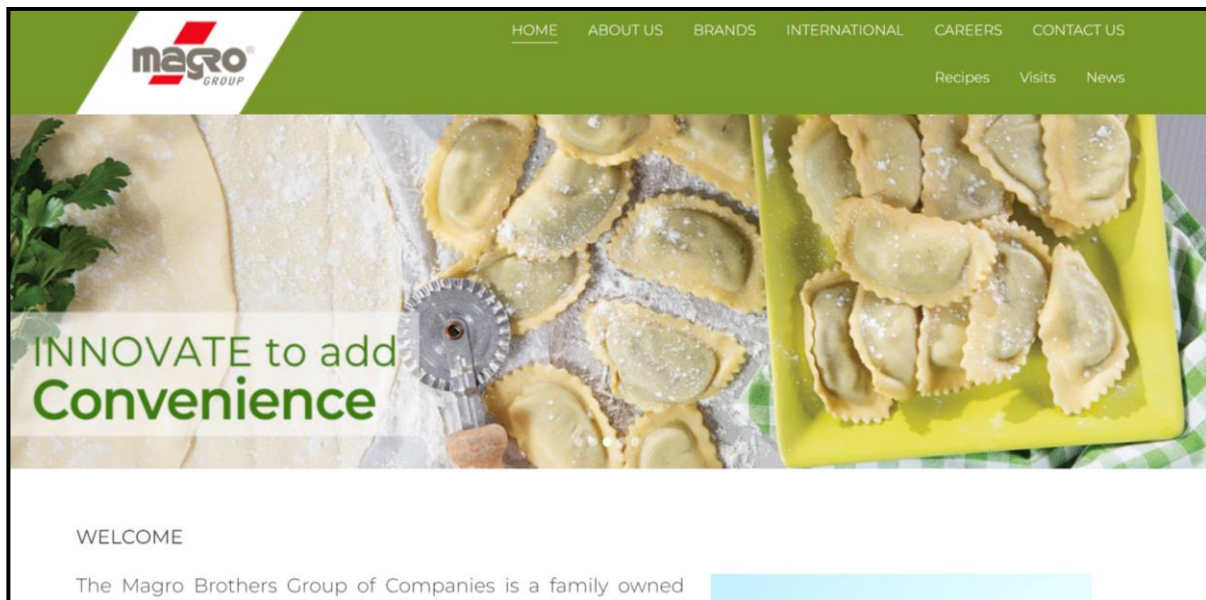
c. Identify which of the following websites is static and which is dynamic.



(Source: <https://www.pavipama.com.mt/app/>)

i. Type of website: _____

(2)



(Source: <https://www.magro.com.mt/>)

ii. Type of website: _____

(2)

8

Question 8**C-5 (12 marks)**

- The web developers of 'Digi Market' started coding the supermarket's website.
- While writing the code, some errors were encountered.

a. For each code snippet provided below, identify the line of code containing the error:

Code Snippet 1:

```
1    <footer>
2        Developed by Digi Market</p>
3    </footer>
```

Error: _____ (2)

Code Snippet 2:

```
1    footer {
2        background-color: orange;
3        color: white;
4        floating: left;
5        text-align: right;
6        width: 100%;
7    }
```

Error: _____ (2)

- b. Correct each error identified in Question 8a by writing down the appropriate code for the line containing the error.

Correct solution for code snippet 1:

_____ (2)

Correct solution for code snippet 2:

_____ (2)

This question continues on next page.

c. The website needs to be modified so that it looks better. Following is a snippet of the HTML code of the website.

1. <section>
2.
3. <p>Pete's Supermarket is a family-run business that has been in the supermarket industry for several years. It started out as a small family grocer around 40 years ago, and today, it is a large supermarket in Mosta.</p>
4. <p>The supermarket offers a complete shopping experience. It provides customers with various departments, including: fruit and vegetables section, chilled and dairy products section, delicatessen counter, bakery, grocery section</p>
5. </section>

Enhance the provided HTML code snippet by indicating the line of code which will be modified and writing the necessary HTML code for that line.

i. The supermarket image, *supermarket.jpg*, should be 300px wide and 160px high.

Line of code number to be enhanced: _____

Enhanced code: _____

_____ (2)

ii. The supermarket's departments mentioned in the paragraph starting "The supermarket offers a complete ..." should be displayed as an unordered list as shown:

The supermarket offers a complete shopping experience. It provides customers with various departments, including:

- fruit and vegetables section,
- chilled and dairy products section,
- delicatessen counter,
- bakery,
- grocery section

Line of code number to be enhanced: _____

Blank Page