



**L-Università  
ta' Malta**

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE  
EXAMINATIONS BOARD

**SECONDARY EDUCATION CERTIFICATE LEVEL  
2022 SUPPLEMENTARY SESSION**

---

SUBJECT: **Information Technology**  
 PAPER NUMBER: Synoptic – Unit 2  
 DATE: 1<sup>st</sup> November 2022  
 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	8	12	8	8	12	8	8	70

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

**Scenario**

- A local company, 'TMS Limited', is launching a marketing campaign to advertise a new product.
- They selected some of their best employees to work on the development of this marketing campaign.

**Question 1**

**K-1 (6 marks)**

'TMS Limited' emphasised the need of utilising different types of media for the marketing campaign.

a) List **TWO** different types of media, apart from images, audio, and video, that can be used for the marketing campaign.

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** different hardware device required when developing or using:

i. Images: \_\_\_\_\_ (0.5)

ii. Audio: \_\_\_\_\_ (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**

**K-2 (8 marks)**

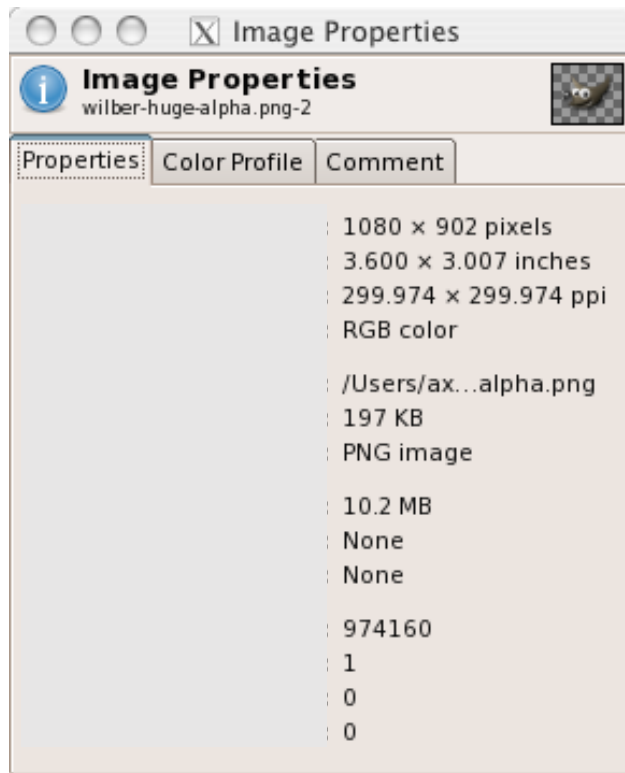
Images form an integral part of the promotional campaign being developed for 'TMS Limited'.

a) State **TWO** main characteristics of image formats, apart from compression, image size, vector/raster, and resolution.

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

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

b) The screenshot below shows the properties of an image which will be used during the campaign.



Source: <https://stackoverflow.com>

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

Resolution: \_\_\_\_\_ (1)

Image size: \_\_\_\_\_ (1)

c) Describe the **TWO** characteristics of image formats you stated in Question 2a.

Image characteristic 1: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (2)

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

Image characteristic 2: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ (2)

8

**Question 3**

**C-2 (12 marks)**

- As part of the marketing campaign, the employees decided to give a fresh look to the logo of the company.
- The logo will be used in various media including posters and billboards.
- They are undecided about which image file format they should use for the logo.

a) Select the most appropriate image format, from JPEG and SVG, for creating the company's logo.

Most appropriate image format for a logo: \_\_\_\_\_ (4)

b) Justify the image file format selected in Question 3a based on vector/raster and compression.

Justification based on vector/raster:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ (2)

Justification based on compression:

\_\_\_\_\_

\_\_\_\_\_

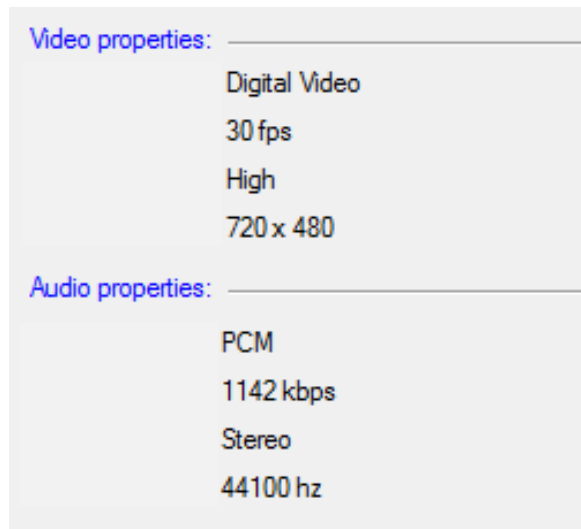
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ (2)



b) The screenshot below shows the properties of the AVI container which will be used during the campaign.



Source: <https://www.deskshare.com>

From the screenshot above, identify the value of the frame rate and bitrate for the AVI container.

Frame rate: \_\_\_\_\_ (1)

Bitrate: \_\_\_\_\_ (1)

c) Describe 'frame rate' and 'bitrate' as characteristics of an AVI container.

Frame rate: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (2)

Bitrate: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (2)

8

**Question 5**

**K-7 (8 marks)**

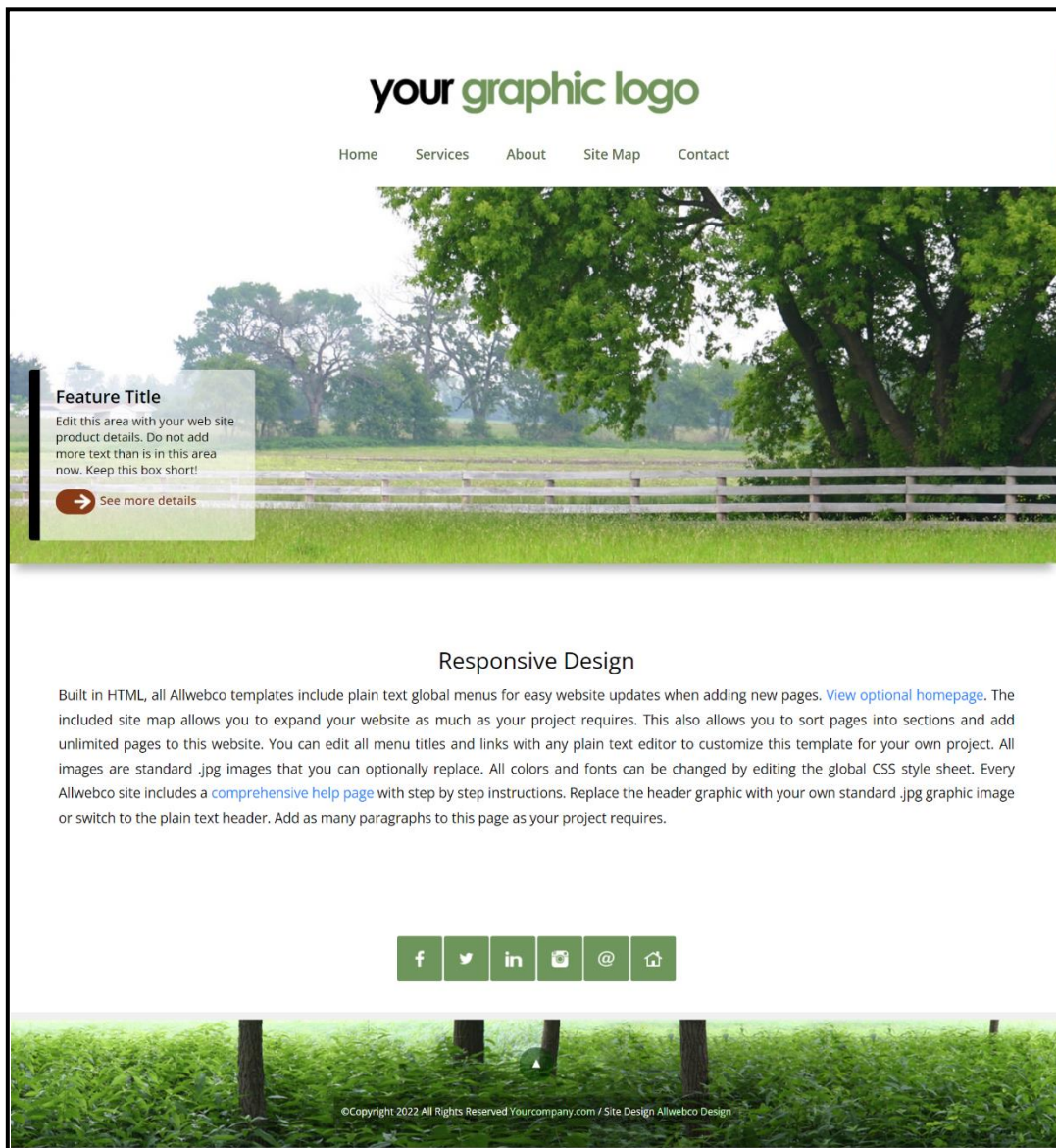
- The promotional team will also be developing a website to advertise the new product.
- They are currently looking at some website templates.

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

Element 1: \_\_\_\_\_ (1)

Element 2: \_\_\_\_\_ (1)

b) Identify the **TWO** basic elements of a website you listed in Question 5a by drawing a circle around them in the image below. Each element should be labelled by writing its name next to the circle. (2)



Source: <https://allwebcodesign.com/templates/C19/C19-Freestyle/>

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

c) Outline the purpose of the navigation menu, the main content and the other **TWO** elements you listed in Question 5a.

Purpose of navigation menu: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (1)

Purpose of main content: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (1)

Purpose of element 1: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (1)

Purpose of element 2: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (1)

8

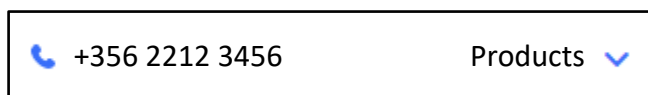
**Question 6**

**C-4 (12 marks)**

- The management of 'TMS Limited' wants to promote the new product through a website.
- They want the website to be as simple as possible.
- The management also wants the website to be user-friendly as to make it easier for visitors to buy the new product online.
- The following screenshots show two possible options for both the navigation menu and the main content.



Navigation Menu 1  
Source: <https://www.psd2html.com>



Navigation Menu 2





Main Content 1

Source: <https://alvarotrigo.com/>



Main Content 2

Source: <https://www.spinxdigital.com>

a) Select the most appropriate navigation menu and main content for the website intended to promote the new product.

Navigation menu: \_\_\_\_\_ (2)

Main content: \_\_\_\_\_ (2)

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



**Question 7**

**K-9 (8 marks)**

HTML is the main language to be used by the promotional team for the development of their website.

a) Define HTML and its use.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ (2)

b) List **FOUR** HTML element tags which are normally used during the development of a website, apart from <div> and <img>.

HTML element tag 1: \_\_\_\_\_ (0.5)

HTML element tag 2: \_\_\_\_\_ (0.5)

HTML element tag 3: \_\_\_\_\_ (0.5)

HTML element tag 4: \_\_\_\_\_ (0.5)

c) Relate the following **FOUR** attributes to the statement which indicates their use in relation to the respective HTML tag.

rel	target	id	source (src)
-----	--------	----	--------------

i. This attribute is used in conjunction with the <img> tag to specify the file path to the media file. \_\_\_\_\_

ii. This attribute specifies where to open the hyperlink defined within the <a> tag. \_\_\_\_\_

iii. This attribute uniquely identifies an HTML element such as <p>. \_\_\_\_\_

iv. This attribute specifies the relationship between the current HTML document and the linked document specified within the <link> tag. \_\_\_\_\_

(4) 

8
---

**Please turn the page.**

**Question 8**

**K-10 (8 marks)**

CSS will also be used in conjunction with HTML to create a better user interface for the website.

a) Define CSS and its use.

---

---

---

---

(2)

- b) • Some employees are new to CSS.
- While looking for information, they came across the terms external CSS and internal CSS.

Distinguish between external and internal CSS.

---

---

---

---

---

---

---

---

(2)

c) The following code forms part of the CSS utilised for the website.

```
div {  
    height: 200px;  
    width: 50%;  
    background-color: powderblue;  
}
```

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

i. div (element) selector: \_\_\_\_\_

---

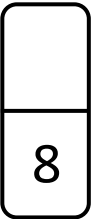
---

(1)

ii. height declaration: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (1)

iii. width declaration: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (1)

iv. background-color declaration: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (1)



Blank Page

Blank Page

Blank Page