L-Università ta' Malta

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE
EXAMINATIONS BOARD

**SECONDARY EDUCATION CERTIFICATE LEVEL
2018 SUPPLEMENTARY SESSION**

SUBJECT:	**Information Technology**
PAPER NUMBER:	Synoptic – Unit 2
DATE:	2nd November 2018
TIME:	10:00 a.m. to 12:05 p.m.

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

Scenario

STORIES is a bookstore which has recently opened in Sliema. Over the three weeks that the store has been open, there have not been a lot of customers and the company director hopes that some advertising could help bring in more people.

Question 1   **K2 (10 marks)**

The director knows that there are different multimedia components and would like to learn more about them.

Provide **TWO** file formats for each of the components mentioned below:

	Multimedia Components	File Formats
a)	Text	
b)	Audio	
c)	Animation	
d)	Video	
e)	Images	

Question 2   K3 (12 marks)

The director would like to learn more about image file formats and their qualities.

a) Mention **TWO** differences between raster and vector images.

   i. _____

   _____ (1)

   ii. _____

   _____ (1)

b) Write down whether the following file formats are raster or vector. (2)

File format	Raster/Vector
PNG	
BMP	
PDF	
TIFF	

c) Name **TWO** image file formats with lossy compression.

   i. _____ (1)

   ii. _____ (1)

d) Name **THREE** image file formats with lossless compression.

   i. _____ (1)

   ii. _____ (1)

   iii. _____ (1)

e) Are Vector images compressed or uncompressed?

   _____

   _____ (1)

f) Outline an advantage of having an image with a colour depth of 16 bits and the same image with a colour depth of 32 bits.

   _____

   _____ (2)

Please turn the page.

Question 3   **K4 (6 marks)**

STORIES has acquired the service of a junior marketing executive. Help the marketing executive identify the effects used on the images below by writing the name of **ONE** effect next to each picture. A number of choices have been provided.

brightness, hue, saturation, invert, contrast, blur

Original image:

Figure 1: Pumpkins and flowers
Source: https://pxhere.com/en/photo/851491

Image	**Effect Name**

Please turn the page.

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Question 4   **C2 (10 marks)**

Layers help in the creation of composite images. Answer the following questions to help the marketing executive.

a) Describe inner glow.

_____

_____

_____ (1)

b) Describe outer glow.

_____

_____

_____ (1)

c) Provide a description of the following:

   i.   Drop Shadow: _____

_____ (2)

   ii.   Inner Shadow: _____

_____ (2)

d) Provide a description of the following:

   i.   Overlay: _____

_____ (2)

   ii.   Hard light: _____

_____ (2)

Question 5   **A1 (5 marks)**

The marketing executive would like to move from image editing to simple animations. Provide your assistance by answering the following questions.

a) Provide a definition of the term "animation".

_____

_____ (2)

b) What is the use of keyframes in animation?

_____

_____ (2)

c) Which application could be used to create an animation?

_____ (1)

Question 6   **K8 (8 marks)**

Now that the marketing executive has a better understanding of image editing, it is time to carry out video and sound editing in order to be able to create short adverts for STORIES. However, there are many different terms used and you have been asked to assist by providing a definition of the following terms:

a) Transitions:

_____

_____

_____ (2)

b) Aspect Ratio:

_____

_____

_____ (2)

c) 4K:

_____

_____

_____ (2)

This question continues on next page.

d) PAL/NTSC:

_____

_____

_____ (2)

Question 7   **A2 (6 marks)**

Now that the company has a better understanding of the audio/visual terminology, it would like to start working on their first production. Help by answering the questions below.

a) Mention **THREE** considerations that should be taken during the PLANNING phase of the audio/visual production.

    i. _____

        _____ (1)

    ii. _____

        _____ (1)

   iii. _____

        _____ (1)

b) Place the following elements under the correct phase of an audio/visual production.   (3)

video effects, aspect ratio, transitions, frame rate, sound, type of format

Production Phase	**Output Phase**

Question 8   **C5 (13 marks)**

The Marketing Executive wants to create a website in order to be able to upload videos and images for the bookstore. She is still new to HTML and would like your help with understanding a piece of code.

```
1   <!DOCTYPE html>
2 ▼ <html>
3 ▼     <head>
4           <title> Stories Bookstore</title>
5           <link href="Styling.css" rel="stylesheet">
6       </head>
7 ▼     <body>
8           <h1> Welcome to Stories!</h1>
9           <h3> Featured book!</h3>
10          <img alt="HP Book Cover" src="images/HP%20Book%20Cover%201.jpg" height="400">
11          <p><a href="https://www.pottermore.com/">More information</a></p>
12      </body>
13  </html>
```

Figure 2: HTML code

Answer the following questions by refering to Figure 2.

a)   What is the function of the <html> tag in line 2?

_____

_____ (1.5)

b)   Which tag is being used to display an image on the website?

_____ (1.5)

c)   In the <link> tag in line 5 what is the purpose of the attribute **rel**?

_____

_____ (1.5)

d)   What is the purpose of the **height** attribute in the <img> tag in line 10?

_____

_____ (1.5)

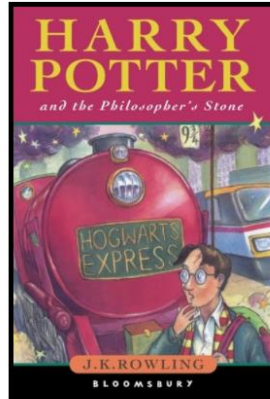e)   What is the purpose of the **href** attribute in line 11?

_____

_____ (1.5)

This question continues on next page.

f)   The website that corresponds to the above code looks like Figure 3 below:

Figure 3: Website screen shot
Source: http://www.pottermore.com

   i.   What would happen if the <p> tag in line 11 is removed?

   _____

   _____

   _____ (2)

   ii.   What is the difference between the <h1> and <p> tags?

   _____

   _____ (1.5)

g)   If an unordered list had to be included in the website, which tags would be needed?

   _____ (2)

Question 9   **C4 (7 marks)**

The company wants to be able to sell books via the website being created.

a)   Should the company create a static or dynamic website?

   _____ (1)

b)   Explain why the type of website chosen in Question 9(a) should be used for this scenario.

   _____

   _____ (2)

c) Explain **TWO** interactive elements that could be included in the website.

   i. _____

      _____ (2)

   ii. _____

      _____ (2)

Question 10   K10 (4 marks)

The marketing executive has heard that CSS could be used in web design.

List **FOUR** advantages of using CSS.

a) Advantage 1:

   _____

   _____ (1)

b) Advantage 2:

   _____

   _____ (1)

c) Advantage 3:

   _____

   _____ (1)

d) Advantage 4:

   _____

   _____ (1)

Please turn the page.

Question 11   **A3 (19 marks)**

You are requested to help the company create a page within the bookstore website. On completion, the page should look like the Figure 4 shown below:

Opening hours

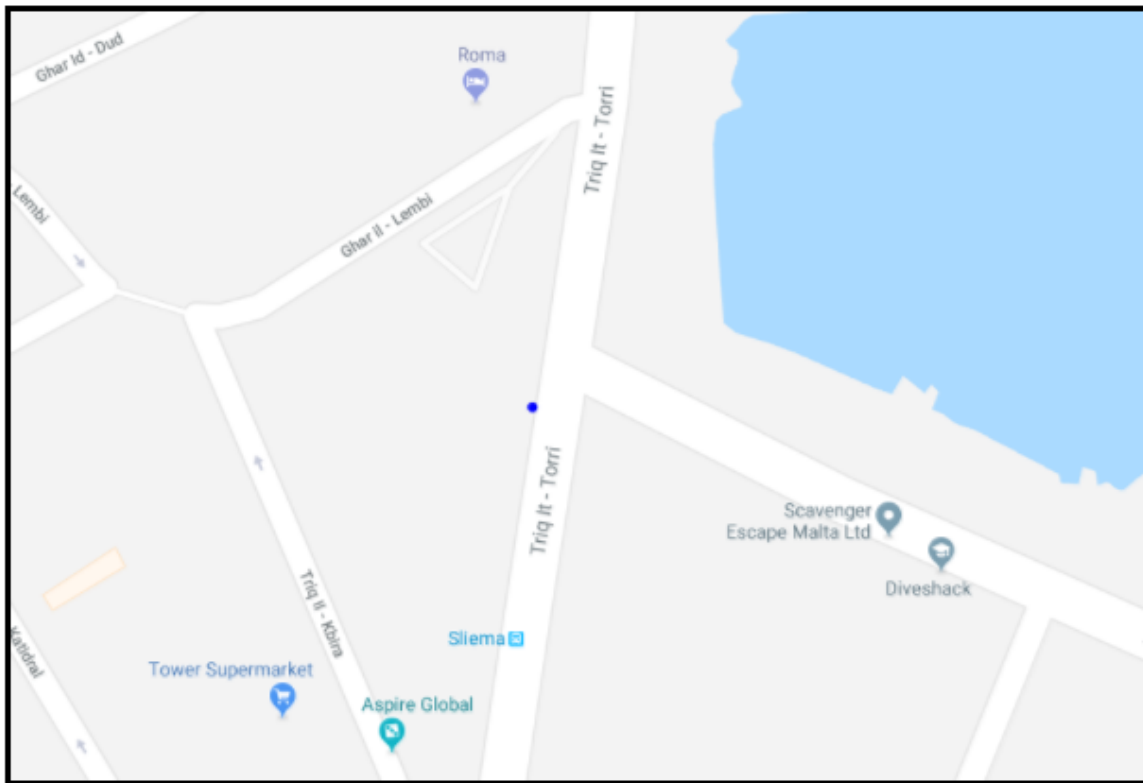| Day	Hours
Monday to Friday	9:30 to 5:00
Saturday	9:30 to 1:00
Closed	N/A

Location

Figure 4: Contact us page
Source: Google maps

On the next page, write the **HTML** and **INTERNAL CSS** code needed to create the website as shown above. Some additional notes have been provided with the necessary design details.

> **Additional Notes:**
>
> - Page title: STORIES Bookstore
> - "Opening Hours" and "Location" texts are to be formatted as headers
> - Table with solid border in Lightgray colour
> - Table column width: 300 px
> - Image border: Solid Black
> - Image name: SliemaLocation.png (the image is found in a folder called **images**)
> - Image width: 600 px

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