



**L-Università
ta' Malta**

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE
EXAMINATIONS BOARD

**SECONDARY EDUCATION CERTIFICATE LEVEL
2020 MAIN SESSION**

SUBJECT:	Information Technology
PAPER NUMBER:	Controlled – Unit 2
DATE:	21 st May 2019
TIME:	10:00 a.m. to 11:35 a.m.

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

Name of candidate _____

I.D. number _____

School _____

Class _____

Notes to Students:

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

Scenario

A new Japanese restaurant, Lotus, has opened recently in Fgura. The owners would like to create a number of different adverts to bring attention to their restaurant and attract customers. They have employed you to help them out with this task.

Question 1

K1 (4 marks)

There are many multimedia systems Lotus could use to attract new customers. Describe **FOUR** multimedia systems from the ones listed below.

holograms, information kiosks, CAD, websites, social media, virtual reality

Multimedia System 1: _____

_____ (1)

Multimedia System 2: _____

_____ (1)

Multimedia System 3: _____

_____ (1)

Multimedia System 4: _____

_____ (1)

Question 2

K2 (4 marks)

Different multimedia components can have different file formats. Help Lotus by answering the following questions.

jpeg, flac, fli, flc, vob, tiff, mkv, swf, wav, rif, mpeg, mov

a) List the given file formats in the correct multimedia component. Each component needs to have **THREE** different file formats.

Multimedia component	Format 1	Format 2	Format 3
Audio			
Image			
Video			
Animation			

(3)

b) Text was not listed as one of the components in part (a) above. List **FOUR** examples of file formats for the text multimedia component.

- i. _____
- ii. _____
- iii. _____
- iv. _____

(1)

Please turn the page.

Question 3

K3 (4 marks)

The Lotus restaurant owners seem to have a lot of misconceptions regarding the different file formats and their characteristics. To help clarify these misconceptions, they asked you to relate the different image file formats to their qualities by writing True or False next to the statements below.

Statements	True/False	
a) TIFF is a vector file format.		(1)
b) An example of an uncompressed file format is BMP.		(1)
c) PDF is a lossless file format.		(1)
d) BMP can have a 24-bit colour depth.		(1)

Question 4

K6 (4 marks)

After helping them with image file formats, Lotus owner would also like your help to understand video file formats.

a) Mention **FOUR** lossy video file formats.

- i. _____ (0.5)
- ii. _____ (0.5)
- iii. _____ (0.5)
- iv. _____ (0.5)

b) Which file format will produce the largest file size, H.264 or AVI?

_____ (0.5)

c) Which file format will produce the better quality video, WMV or H.264?

_____ (0.5)

d) Which file format will produce the smallest file size, MP4 or WMV?

_____ (0.5)

e) Which file format will produce the poorest quality, AVI or MP4?

_____ (0.5)

Question 5

K7 (4 marks)

Lotus restaurant owners understand that audio is a very important part of multimedia productions and have asked for your help to understand audio terminology. For each statement below, fill in the blank by either providing the definition or the terminology being defined.

a) _____;

The process of making a sound louder. (0.25)

b) Tempo;

_____ (0.75)

c) Treshold;

_____ (0.75)

d) _____;

The persistence of sound after a sound is produced. (0.25)

e) _____;

The process of making a sound heard gradually as another disappears or becomes silent. (0.25)

f) Delay;

_____ (0.75)

g) _____;

Tones whose frequency or range are at the higher end of human hearing. In music, this corresponds to high notes. (0.25)

h) Loop.

_____ (0.75)

Please turn the page.

Question 6

K8 (4 marks)

Provide a definition for the following terms in order to help Lotus better understand video:

a) PAL/NTSC;

(1)

b) Aspect Ratio;

(1)

c) 4K;

(1)

d) Keyframe.

(1)

Question 7

K10 (4 marks)

Lotus would like to set up a new website for their restaurant. They heard a lot of things about HTML but cannot understand the need for CSS. List **FOUR** advantages of using CSS with HTML code.

a) Advantage 1:

(1)

b) Advantage 2:

(1)

c) Advantage 3:

(1)

d) Advantage 4:

_____ (1)

Question 8

C3 (6 marks)

The Lotus owners have decided to create a video advert for their restaurant to be used for online streaming. They have already made some decisions on what video and audio formats to use and they would like your opinion on the matter. They decided to use AVI and MP3 for their advert.

a) Do you agree with their decision to use AVI for online streaming? (Yes/No)

_____ (1)

b) Give **ONE** reason for your answer.

_____ (1)

c) An employee suggested that AAC might be a better option for encoding the file's audio to be streamed online. Justify this suggestion by providing **ONE** reason.

_____ (1)

d) Lotus are considering placing their video on Facebook. What would be the best aspect ratio to use in that scenario? Justify your answer by providing **ONE** reason.

Aspect ratio: _____ (1)

Justification:

_____ (2)

Please turn the page.

Question 9**C5 (6 marks)**

You have produced the following HTML code as a sample to be shown to the Lotus owners. However, the owners are not familiar with HTML and would like to ask you some questions to better understand what is going on.

```

1  <!DOCTYPE html>
2  <html lang="en-UK">
3
4  <head>
5      <title> Marvel Cinematic Universe</title>
6      <link href="Formatting.css" rel="stylesheet">
7  </head>
8
9  <body>
10 <div class="intro">
11     <h1> Marvel Cinematic Universe</h1>
12
13     <p> From Iron Man to Captain America to Daredevil, Guardians of the Galaxy, Jessica Jones, and more,
14         the MCU brings some of the most legendary comic heroes -- and some lesser known ones -- to vibrant,
15         colorful, action-packed life</p>
16
17     <a href="https://www.rottentomatoes.com/franchise/marvel_cinematic_universe/"> Rotten Tomatoes</a>
18 </div>
19
20 <div class="content">
21
22     <h2> List of MCU Movies between 2016 and 2017</h2>
23
24     <ol>
25         <li> Captain America: Civial War</li>
26         <li> Doctor Strange</li>
27         <li> Guardians of the Galazy Vol 2</li>
28         <li> Spider-Man Homecoming</li>
29         <li> Thor Ragnarok</li>
30     </ol>
31
32 </div>
33
34 <div class="images">
35
36     <table>
37         <tr>
38             <td>  </td>
39             <td>  </td>
40         </tr>
41     </table>
42
43 </div>
44
45 </body>
46
47 </html>

```

a) Which attribute is being used to identify the language of the website content?

_____ (0.5)

b) How many rows and columns does the table in line 36 have?

_____ (0.5)

c) If you wanted to add a new row to the table which tag should be used?

_____ (0.5)

d) What is the purpose of the tag in line 24?

_____ (0.5)

e) What is the purpose of the tag in line 25?

_____ (1)

f) What is the purpose of the <div> tag?

_____ (1)

g) The code between line 24 and 30 was modified as follows:

```
24 <ol>
25   <li> Captain America: Civil War</li>
26   <li> Doctor Strange</li>
27   <li> Guardians of the Galaxy Vol 2</li>
28   <hr>
29   <li> Spider-Man Homecoming</li>
30   <li> Thor Ragnarok</li>
31 </ol>
```

Write/Draw the expected output in the box hereunder:

(1)

h) What is the purpose of the <p> tag?

_____ (1)

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