

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD
UNIVERSITY OF MALTA, MSIDA

SECONDARY EDUCATION CERTIFICATE LEVEL

MAY 2017

SUBJECT:	Information Technology
PAPER NUMBER:	Controlled – Unit 2
DATE:	25 th May 2017
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

Studio Hot Desert Wind is a local company which have decided to expand their business in the multimedia sector. This is an area which compliments their current line of business; and they believe it will help them to serve their customers better. In order to be a success in this area they have enlisted your help in order to assist them in this effort.

Question 1

K1 (4 marks)

There are various multimedia communication systems that can be used today in order to reach potential customers. Describe the following different multimedia systems to Studio Hot Desert Wind:

a. Websites

b. Social Media

c. Virtual Reality

d. Holograms

Question 2

K2 (4 marks)

Each multimedia component can make use of various file formats which might be confusing for Studio Hot Desert Wind. Help them by listing **TWO** file formats for each multimedia component listed below:

a. Text

- i. _____
- ii. _____

b. Images

- i. _____
- ii. _____

c. Audio

- i. _____
- ii. _____

d. Video

- i. _____
- ii. _____

e. Animation

- i. _____
- ii. _____

Question 3

K3 (4 marks)

Relate between the following image file types and their qualities. You are expected to show (by filling in the table with the correct terminology) to Studio Hot Desert Wind the typical image quality associated with the image file type in terms of lossy/lossless, compressed/uncompressed and raster/vector.

	lossy/lossless	compressed/uncompressed	raster/vector
JPEG			
BMP			

Question 4

K6 (4 marks)

Relate between the following video file types and their characteristics. Mark the correct option from the ones available below in order to explain to Studio Hot Desert Wind the typical characteristics associated with the video file types.

a. Both MP4 and WMV are compressed video file types.

- True
- Both are not compressed
- Only MP4 is compressed
- Only WMV is compressed

b. Both MP4 and WMV are lossy file types.

- True
- Both are not lossy
- Only MP4 is lossy
- Only WMV is lossy

c. Which file format, between MP4 and WMV, would typically produce the best video quality?

d. Which file format, between MP4 and WMV, would typically produce the smallest file size?

Question 5

K7 (4 marks)

Audio is another area of vital importance in multimedia productions. Assist Studio Hot Desert Wind by matching the correct terminology with its definition:

Terminologies
Pitch
Reverb
Tempo
Cross fade

Definitions
This is the speed at which audio should be played.
This is a subjective perception of a sound wave, related to which notes are deemed to be higher or lower.
This is an effect whereby one sound is introduced gradually whilst another is slowly made silent.
This is when a sound can still be heard as an echo after that it is produced.

Question 6

K8 (4 marks)

Define the following video related terminology for Studio Hot Desert Wind:

a. Keyframe

b. Aspect ratio

c. 4K

This question continues on the next page.

d. PAL/NTSC

Question 7

K10 (4 marks)

The first project of Studio Hot Desert Wind will be a website. You have discussed with them the idea of using CSS with HTML. List **FOUR** advantages of using CSS with HTML.

Advantage 1: _____

Advantage 2: _____

Advantage 3: _____

Advantage 4: _____

Question 8

C3 (6 marks)

Following your explanations of HTML, CSS and the different file formats; the directors have asked you which audio and video file types would you use for their first project, which is going to be a website.

The website/project must be compatible with a wide range of systems (desktops, laptops, tablets and smartphones) having different operating systems. The loading times of the website should be reduced as much as possible whilst providing the best audio and video quality.

a. Which audio file type would you use in this scenario?

i. File type: _____

ii. Justify the choice of audio file type. Mention **TWO** criteria used to reach this conclusion.

b. Which video file type would you use in this scenario?

i. File type: _____

ii. Justify the choice of video file type. Mention **TWO** criteria used to reach this conclusion.

Please turn the page.

Question 9**C5 (6 marks)**

You have produced the following HTML code as a sample to show to the directors of Studio Hot Desert Wind.

```
1  <html lang="en">
2  <head>
3    <title>Sample for Studio Hot Desert Wind</title>
4  </head>
5
6  <body>
7    <h1 id="MainHeader">This is a sample for Studio Hot Desert Wind</h1>
8
9    
10
11   <table>
12     <tr>
13       <td>Name</td>
14       <td>Month</td>
15       <td>Year</td>
16     </tr>
17     <tr>
18       <td>Moctezuma</td>
19       <td>November</td>
20       <td>1982</td>
21     </tr>
22     <tr>
23       <td>Handel</td>
24       <td>April</td>
25       <td>2017</td>
26     </tr>
27   </table>
28
29 </body>
30 </html>
```

The directors are not familiar with HTML development. Explain to them the following HTML tags:

a. HTML tag (Line 1)

i. What is the purpose of the html tag?

ii. Mention and explain the purpose of the attribute/s being made use of by the html tag (if any) in the above mentioned scenario.

b. H1 tag (Line 7)

i. What is the purpose of the h1 tag?

ii. Mention and explain the purpose of the attribute/s being made use of by the h1 tag (if any) in the above mentioned scenario.

This question continues on the next page.

c. img tag (Line 9)

i. What is the purpose of the img tag?

ii. Mention and explain the purpose of the attribute/s being made use of by the img tag (if any) in the above mentioned scenario.

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