UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2017/2018

COURSE NAME	:	FUNDAMENTALS OF MULTIMEDIA COMPUTING
COURSE CODE	:	BIM10103
PROGRAMME CODE	:	BIM
EXAMINATION DATE	:	JUNE / JULY 2018
DURATION	:	3 HOURS
INSTRUCTION	:	ANSWER **ALL** QUESTIONS.

TERBUKA

THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

Q1   (a)   Explain Nyquist Theorem in digital audio.

(2 marks)

(b)   Discuss **TWO (2)** differences of sound intensity and loudness.

(4 marks)

(c)   Explain the frequency of sound wave with appropriate figure.

(4 marks)

Q2   (a)   List **THREE (3)** methods of creating traditional animation.

(3 marks)

(b)   Explain **ONE (1)** disadvantage of procedural animation technique.

(2 marks)

(c)   Discuss Arcs Principle in animation with appropriate example.

(5 marks)

Q3   (a)   Define typography.

(2 marks)

(b)   List **TWO (2)** design principles of typography.

(2 marks)

(c)   Discuss design principles of typography stated in **Q3(b).**

(4 marks)

(d)   Explain **TWO (2)** differences between monospaced and proportional typefaces.

(4 marks)

Q4   Given the following scenario:

Faiz is assigned to record a lecture video for Fundamentals of Multimedia Computing course. The recorded video will be uploaded to the Massive Open Online Course website. The standard video requirements are 1080i using 24-bit colour and 25 fps. The audio setting should be a CD quality stereo with 16 bit depth.

(a)   Calculate the file size of each frame of uncompressed video.

(4 marks)

(b)   Calculate the size of the file for 10 second uncompressed video in Megabyte (MB).

(6 marks)

(c)   Identify **ONE (1)** problem arise from the scenario.

(2 marks)

(d)   Suggest **TWO (2)** strategies to overcome problem stated in **Q4(c)**.
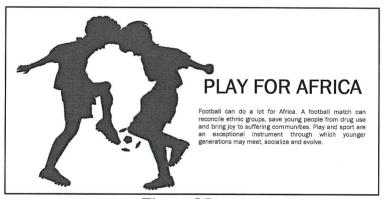
(2 marks)

Q5   Given the following **Figure Q5.**

Figure Q5

(a)   Define visual communication.

(2 marks)

(b)   Identify **THREE (3)** Gestalt principles implemented in **Figure Q5**.

(3 marks)

(c)   Discuss a purpose of each Gestalt principles identified in **Q5(b)**.

(9 marks)

Q6 Given the following ActionScript 3.0 code segment in **Figure Q6**.

```
1    stop();
2    myButton.addEventListener(MouseEvent.CLICK, doSomething);
3
4    function doSomething(event:MouseEvent):void
5    {
6        MovieClip(this.root).gotoAndPlay(25);
7    }
```

Figure Q6

(a) Describe the function of addEventListener method in **Figure Q6**.

(? marks)

(b) Describe the whole process if myButton object in **Figure Q6** is clicked.

(6 marks)

(c) Explain the relationship between ActionScript and ECMAScript.

(2 marks)

Q7 Given the following scenario:

```
Alfis Technology Sdn. Bhd. is appointed by Ministry of
Education to develop an interactive multimedia learning
application for primary school. The final product presented by
the company contain one video clip downloaded from the Internet
and used without any authorization by its owner.
```

(a) Explain the category of Intellectual Property involved in the scenario.

(2 marks)

(b) Discuss the legal/lawful action that can be taken for any violation of Intellectual Property explained in **Q7(a)**.

(4 marks)

(c) Suggest action that can be taken to prevent legal/lawful action stated in **Q7(b)**.

(4 marks)

- END OF QUESTION -