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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
ONLINE**

**SEMESTER II
SESSION 2019/2020**

- COURSE NAME : INTRODUCTION TO MULTIMEDIA
- COURSE CODE : BIT 10403
- PROGRAMME CODE : 1 BIT
- EXAMINATION DATE : JULY 2020
- DURATION : 2 HOURS AND 30 MINUTES
- INSTRUCTION : 1. ANSWER **ALL** QUESTIONS.
2. PLEASE MAKE SURE TO CLICK "SAVE ANSWER" BUTTON FOR SUBJECTIVE QUESTIONS. OBJECTIVE QUESTIONS ARE SAVED AUTOMATICALLY.

THIS QUESTION PAPER CONSISTS OF THREE (3) PAGES



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Q1 Questions **Q1(a)-Q1(c)** are based on the given scenario.

FSKIM video production is assigned a task to produce a short digital video for the faculty's website. The video parameters are 32-bit colour, 640 x 480 pixel screen size and 30 fps frame rate.

- (a) State the formula to calculate a digital video file size.
(4 marks)
- (b) Calculate the video file size (in megabytes) for a half minute video clip
(10 marks)
- (c) Discuss **FOUR (4)** general strategies to reduce digital video file size.
(8 marks)
- (d) Justify **THREE (3)** reasons why digital video is important in a multimedia application.
(9 marks)

Q2 Questions **Q2(a)-Q2(d)** are based on the given scenario.

Your multimedia production team is assigned a task to produce a digital multimedia courseware to assist school children's understanding, knowledge and awareness on Covid-19 pandemic. The main content should focus on prevention measures and steps to avoid the virus from being spread easily to the public. You are required to include local content theme and metaphor for the user interface design concept.

- (a) Suggest **THREE (3)** common golden rules of user interface design.
(9 marks)
- (b) Illustrate **FOUR (4)** main storyboards for the courseware.
(12 marks)
- (c) Justify **ONE (1)** authoring metaphor that is suitable for local content theme and metaphor.
(5 marks)
- (d) Explain **TWO (2)** factors to consider in choosing the authoring tools for the project.
(8 marks)

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- Q3**
- (a) Explain the meaning of Nyquist Theorem in digital audio sampling.
(4 marks)

 - (b) Calculate the file size (in megabytes) for a 2 minutes digital audio file using stereo channels, 8 bit depth and Near FM Radio Quality audio.
(8 marks)

 - (c) Sketch **FOUR (4)** unidirectional microphone patterns for analog audio to digital audio production.
(8 marks)

- END OF QUESTION -

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