



**UNIVERSITI TUN HUSSEIN ONN  
MALAYSIA**

**FINAL EXAMINATION  
SEMESTER II  
SESSION 2018/2019**

COURSE NAME : INTRODUCTION TO  
MULTIMEDIA  
COURSE CODE : BIT 10403  
PROGRAMME CODE : BIT  
EXAMINATION DATE : JUNE / JULY 2019  
DURATION : 3 HOURS  
INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF FOUR (4) PAGES

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**Q1** Sound is a wave that is generated by vibrating objects in a medium such as \_\_\_\_\_.

- A. microwave
- B. water
- C. air
- D. electricity

(2 marks)

**Q2** The effect of high sampling rate includes \_\_\_\_\_.

- A. the reconstructed wave looks different to the original wave
- B. more sample points, and thus smaller file size
- C. the reconstructed wave looks closer to the original wave
- D. less sample points, and thus larger file size

(2 marks)

**Q3** Which of the following audio file types requires QuickTime Player?

- A. .ogg
- B. .wav
- C. .mp3
- D. .mov

(2 marks)

**Q4** The following are characteristics of bitmap images **EXCEPT**

- A. The image is divided in a grid
- B. Each cell in the grid stores only one color value
- C. Each cell is called a pixel
- D. Bitmap images are resolution independent

(2 marks)

**Q5** The process of converting vector graphics into pixel-based images is called \_\_\_\_\_.

- A. aliasing
- B. anti-aliasing
- C. rastering
- D. rendering

(2 marks)

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**Q6** Which of the following is the **CORRECT** CMY Subtractive Color combination?

- A. Full intensities of cyan + magenta = red
- B. Full intensities of cyan + yellow = blue
- C. Full intensities of magenta + yellow = green
- D. Full intensities of cyan + magenta + yellow = black

(2 marks)

**Q7** Digital photo quality is determined by \_\_\_\_\_.

- A. the number of megapixels
- B. the cleanliness of the lens
- C. the size and quality of the sensor
- D. the camera's brand

(2 marks)

**Q8** Standard frame rate for monochrome NTSC video is \_\_\_\_\_.

- A. 24 fps
- B. 25 fps
- C. 29.97 fps
- D. 30 fps

(2 marks)

**Q9** Digital video file size optimization is important because \_\_\_\_\_.

- A. a large file requires less disk space
- B. a large file takes longer to transfer
- C. data transfer can be less expensive
- D. high data rate may cause smooth playback of the video

(2 marks)

**Q10** A computer animation software which also categorised as multimedia authoring tool is \_\_\_\_\_.

- A. Autodesk 3D StudioMax
- B. Macromedia Director
- C. Adobe Animate
- D. Microsoft PowerPoint

(2 marks)

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- Q11** (a) Explain the definition of *Nyquist Theorem*. (4 marks)
- (b) Calculate the file size in Megabytes (MB) for a 1 minute CD quality audio with stereo channels. (8 marks)
- (c) Illustrate **FIVE (5)** unidirectional microphone patterns for audio recording. (10 marks)

**Q12** Questions **Q12(a) – Q12(c)** are based on the given scenario:

As a multimedia freelancer, you have been assigned a task to produce a video clip of a popular song to be uploaded to YouTube. The digital video uses 16-bit colour, 800 x 640 frame size and 25 frames per second.

- (a) Identify the formula to calculate the video file size. (4 marks)
- (b) Calculate the video file size for 1 minute duration. (12 marks)
- (c) Propose **THREE (3)** types of compression methods that are appropriate for uploading the video online. (12 marks)

**Q13** Questions **Q13(a) – Q13(c)** are based on the given scenario:

Your company is going to produce a campaign video to improve teenagers awareness to cyberbullying on social media. You are a video producer who responsible for pre-production, production and post-production phases. The video will use Malaysian identity or local content as the theme for user interface design.

- (a) Suggest **THREE (3)** software for video post-production. (6 marks)
- (b) Explain **THREE (3)** user interface design principles that are suitable for local content theme. (9 marks)
- (c) Design **FIVE (5)** scenes for the video storyboard. (15 marks)

- END OF QUESTION -

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