



*(Knowledge for Development)*

**KIBABII UNIVERSITY**  
**(KIBU)**

**UNIVERSITY EXAMINATIONS**  
**2020/2021 ACADEMIC YEAR**

**END OF SEMESTER EXAMINATIONS**  
**YEAR TWO SEMESTER ONE EXAMINATIONS**

**FOR THE DEGREE OF**  
**BACHELOR OF SCIENCE**  
**(INFORMATION TECHNOLOGY)**

**COURSE CODE : BIT 216**

**COURSE TITLE : MULTIMEDIA TECHNOLOGIES**

**DATE: 16/06/2021**

**TIME: 9.00 A.M. – 11.00 A.M.**

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**INSTRUCTIONS TO CANDIDATES**

**ANSWER QUESTIONS ONE AND ANY OTHER TWO.**

**QUESTION ONE (COMPULSORY) [30 MARKS]**

1. What is a major benefit of using multimedia/hypermedia in learning?
  - A. It makes it possible for students to understand how they learn.
  - B. It prepares many students for careers in film and theater.
  - C. It allows students a variety of ways to show their abilities.
  - D. It increases motivation for learning.
2. What is the function of an authoring tool in designing multimedia projects?
  - A. Tool used mainly for the final marketing of a multimedia project
  - B. Framework for assembling text graphics video animation and sound into a single interactive project
  - C. Designing tool for storyboarding
  - D. Tool used to edit graphics and animation.
3. Multimedia elements are typically sewn together into a project using \_\_\_\_\_.
  - A. authoring tools
  - B. multimedia tools
  - C. audio tools
  - D. video tools.
4. A smaller version of an image is called
  - A. clipart
  - B. bitmap
  - C. portable network graphic
  - D. thumbnail
5. Which one of the following is the most important element for a multimedia project?
  - A. Image
  - B. Text
  - C. Sound
  - D. Creativity
6. Graphics that contain movement are often referred to as-
  - A. Animation
  - B. Motion
  - C. Morph
  - D. Flash
7. When we provide a structure of linked elements multimedia becomes which type of media?
  - A. Hypermedia
  - B. Hypertext
  - C. Nonlinear multimedia
  - D. Linear multimedia
8. Which one of the following tools is used to select the pixel based on colour value?
  - A. Airbrush
  - B. Drop tool
  - C. Type tool
  - D. Magic wand
9. The text colour in a presentation should contrast with the \_\_\_\_\_ colour.
  - A. CPU
  - B. frame
  - C. stack
  - D. background
10. Which of the following is the television broadcast standard for the Africa and part of Europe?
  - A. NTSC
  - B. PAL
  - C. SECAM
  - D. NSTC
11. Which of these is not likely to be the responsibility of a multimedia project?
  - A. Create interfaces
  - B. Ensure the visual consistency of the project
  - C. Structure content
  - D. Create budgets and timelines for the project
  - E. Select media types for content.
12. Space between lines:
  - A. Leading
  - B. Kerning
  - C. Extrude
  - D. Expanded
  - E. Font Mapping.
13. In which graphic picture quality is not decreased if picture size is increased?
  - A. Print Graphics
  - B. Vector Graphics
  - C. Raster Graphics
  - D. None of the above
14. Which of the following are the 2d colour models?
  - A. RGB and CMK
  - B. RGB and CMG
  - C. RGB and CMYK
  - D. All of the above
15. Pixels are:
  - A. dots of ink from an inkjet printer.
  - B. dots on the screen arranged in rows.
  - C. points of light used by a cordless, wireless, optical mouse.
  - D. points on the end of PDA handheld devices.
16. Pixels are primarily controlled by the:
  - A. user.
  - B. hardware.
  - C. software.
  - D. operating system.
17. A digital photograph is a:
  - A. resolution graphic.
  - B. raster graphic.
  - C. bitmapped image.
  - D. raster image.
18. When a program assigns 8 bits to a pixel, that pixel can display one of up to \_\_\_\_\_ colours.

- A. 32 B. 64 C. 256 D. 1,024
19. The density of pixels on a screen is known as:  
A. resolution. B. pixility. C. pixel depth. D. screen clarity.
20. Software that stores lines and shapes rather than individual pixels is known as:  
A. Vector graphics software. B. raster graphics software.  
C. photo database software. D. resolution software.
21. Briefly describe the following colour models:  
a. Additive [3 marks]  
b. Subtractive [3 marks]
22. Distinguish between synthesized and captures media. [4 marks]

#### QUESTION TWO [20 MARKS]

- a. Give four common use of TEXT in Multimedia application. [4 marks]
- b. What is meant by the terms static media and dynamic media? Give two examples of each type of media. Static [6 marks]
- c. Bearing in mind the characteristics of multimedia in computing, explain whether digital television production fully qualifies to be classified a multimedia product or not. [10 marks]

#### QUESTION THREE [20 MARKS]

- a. Explain any three disadvantages of Graphics in Multimedia product. [6 marks]
- b. Distinguish between bitmap and vector graphics by highlighting three attributes for each of them. [6 marks]
- c. Give two advantages and two disadvantages of vector graphics. [4 marks]
- d. Give two advantages and two disadvantages of bitmap graphics. [4 marks]

#### QUESTION FOUR [20 MARKS]

- a. Explain the difference between Animation and Video. [4 marks]
- b. Give four reasons why you will encourage a multimedia developer to integrate animations in his/her product/application. [4 marks]
- c. Describe streaming as used in multimedia. [4 marks]
- d. Explain any four reasons why you can incorporate video in a multimedia product. [8 marks]

**QUESTION FIVE [20 MARKS]**

- a. Briefly explain the Factors that affect the quality of digital audio include: **[6 marks]**
- b. Calculate the file size of a 2-minute stereo soundtrack with a sampling rate of 56,200 Hertz and sampling size of 32 bits in megabytes. **[3 marks]**
- c. Briefly explain how you can use the following forms of sound in your multimedia product
  - i. Music **[3 marks]**
  - ii. Speech **[2 marks]**
- d. Discuss three major challenges that may be experienced in the usage of multimedia in teaching at Kibabii University. **[6 marks]**