(Knowledge for Development)

KIBABII UNIVERSITY

(KIBU)

UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR

END OF SEMESTER EXAMINATIONS
YEAR ONE SEMESTER ONE EXAMINATIONS

FOR THE DEGREE OF
BACHELOR OF SCIENCE
(INFORMATION TECHNOLOGY)

COURSE CODE   :   BIT 216
COURSE TITLE   :   MULTIMEDIA
          TECHNOLOGIES

DATE: 04/02/2022   TIME: 8.00 A.M. – 10.00 A.M.

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

QUESTION ONE (COMPULSARY) [30 MARKS]

1. One of the disadvantages of multimedia is
   A. Cost B. Adaptability C. Usability D. Relativity
2. Which one of the following is the most important element for a multimedia project?
   A. Image B. Text C. Sound D. Creativity
3. A ……………….. is a family of graphic characters that includes many type sizes and styles.
   A. Font B. Typeface C. Text D Fontographer
4. X-height:
   A. refers to the height of the lowercase letter x
   B. refers to the size of the uppercase letter X
   C. A & D
   D. does not include ascenders and descenders.
5. Optimum line length for text is:
   A. about 16 picas.
   B. the length of the lowercase alphabet.
   C. twice the length of the lowercase alphabet.
   D. one-and-a-half times the length of the lowercase alphabet.
6. Leading is:
   A. the amount of white space between each line of type.
   B. drawing a page dummy with a pencil.
   C. what newspaper editors do at staff meetings.
   D. none of the above.
7. In typography, kerning means?
   A. to create a scrolling text field
   B. To rotate the text around an object
   C. the spacing between character on a line of text
   D. the size of the font
8. An embellishment, tag or tail at the end of a letter stroke is known as a?
   A. Post line   B. Serif   C. Flexer   D. Soul line
9. Smoothing the edges of shapes, such as letters, on a computer screen is called?
   A. Smudging   B. Multi blending   C. Shaving   D. Anti-aliasing
10. Tools which are used to combine text, music, and graphic into a single unit, are called —— tools.
    A. Authoring tool B. Multimedia tool C. Movie making tool D. None
11. What is the main disadvantage to using a raster/bitmap type graphic?
    A. there are no disadvantages of using bitmap graphics
    B. They are more photorealistic than vector images
    C. They can only use 256 colours
    D. They cannot be enlarged greatly without degradation to the image
12. A disadvantage of using vector graphics would include?
    A. They have large file size
    B. They are not photo realistic
    C. They can only use 256 colours
    D. They can be enlarged without degradation to the image
13. 2D graphics typically are in one of the two following formats?
    A. Text and vector   B. Bitmap/raster and pixel
    C. Bitmap/raster and text   D. Bitmap/raster and vector

14. The resolution of an image is defined by?
    A. Size of the image   B. Sharpness and clarity of the image
    C. Color of the image   D. shape of the image
15. Which of the following graphics consist of mathematically defined lines, curves and shapes?
    A. Vector B. text   C. Bitmap/Raster   D. scanned
16. In which type of streaming multimedia file is delivered to the client, but not shared?
    A. real-time streaming   B. progressive download
    C. compression   D. none of the mentioned
17. A video consists of a sequence of
    A. frames.   B. signals.   C. packets.   D. slots.
18. If frames are displayed on screen fast enough, we get an impression of
    A. signals.   B. motions.   C. packets.   D. bits.
19. RGB models are used for
    A. Computer display   B. Printing   C. Painting   D. reflective
20. Colour depth can be defined by _____ which can be displayed on a display unit.
    A. Bits per Pixel   B. Bytes per pixel   C. Dots per inch   D. Megabytes per pixel
21. Which of these format supports transparency
    A. JPEG   B. PNG   C. GIF   D. TIFF
22. Crop tool is used to
    A. Cut the image B. Paint the image C. Move the image D. Select the image
23. Basic elements of video editing are
    A. Shot B. Timeline C. Capture D. All the above
24. In which stage do you edit a video
    A. Pre-production   B. Production   C. Post production .   D. Story boarding
25. What is the place called where we drag all the footages
    A. timeline   B. Canvas   C. Window   D. Library
26. An image editor similar to Adobe Photoshop.
    a. A. Nvu   B. Open Office   C. Bluefish   D. GIMP
27. Which one of the following is the characteristic of a multimedia system?
    A. high storage   B. high data rates C. both (a) and (b)   D. none of the mentioned
28. The formula used to determine the bit rate of a digital sound file in kbits/s is as follows:
    Bit rate = (sampling rate) × (bit depth) × (number of channels) What would be the file size of a sound file that is recorded at 100 kHz at a 16-bit depth in stereo and is 15 seconds in duration?
    A. 3MB   B. 4MB   C. 5MB   D. 6MB
29. What number of colours may be stored in a pixel of a graphic that has a colour depth of 8?
    A. 8   B. 16   C. 64   D. 256
30. 8.   Primary uses of business interactive multimedia include all of the following except
    A. product demonstrations   B. Web page development
    C. entertainment   D. high-quality presentations

QUESTION TWO [20 MARKS]

a. What is typography.   [2 marks]
b. Distinguish between kerning and tracking   [2 marks]
c. Highlight eight (8) guidelines of using text in a multimedia product.   [8 marks]

d. Briefly discuss four ways in which you can use text efficiently in a multimedia product.

[8 marks]

QUESTION THREE [20 MARKS]

a. Briefly explain how multimedia product can be evaluate based on usability from the user's perspectives.   [6 marks]

b. The main reason for increasing popularity of multimedia lies in dramatic concurrent advances in some enabling technologies. Mention any six of these technologies.   [6 marks]

c. Discuss any four benefits of use of multimedia in an application.   [8 marks]

QUESTION FOUR [20 MARKS]

a. Define sampling as used in sound production   [1 mark]

b. Calculate the size of a 30 seconds 16-bit, 44.1 kHz stereo music.   [3 marks]

c. Briefly explain three factors that affect the quality of the sound.   [6 marks]

d. Discuss any FIVE sound editing operations.   [10 marks]

QUESTION FIVE [20 MARKS]

a. Explain the difference between Animation and Video.   [2 marks]

b. Mention four hardware requirements you will consider for video processing. [4 marks]

c. Describe how you can use relationship to genre as a purpose in video editing. [6 marks]

d. Explain any four reasons why you can incorporate video in a multimedia product. [8 marks]