

**UNIVERSITY COLLEGE TATI (UC TATI)****FINAL EXAMINATION QUESTION BOOKLET**

COURSE CODE	:	BCS 2543
COURSE	:	MULTIMEDIA TECHNOLOGY
SEMESTER/SESSION	:	1-2023/2024
DURATION	:	3 HOURS

Instructions:

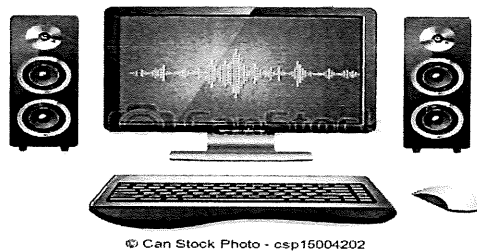
1. This booklet contains 5 questions. Answer **ALL** questions.
2. All answers should be written in answer booklet.
3. Write legibly and draw sketches wherever required.
4. If in doubt, raise your hands and ask the invigilator.

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO

THIS BOOKLET CONTAINS 4 PRINTED PAGES INCLUDING COVER PAGE

QUESTION 1

- a) Multimedia is a computer-based, interactive experience that in incorporates text, graphics, sound, animation, and video. Describe the term animation and give **ONE (1)** example. (3 marks)
- b) Distinguish between hypertext and hypermedia. (4 marks)
- c) A multimedia project is identified as linear and non-linear navigation. Give **THREE (3)** characteristics of non-linear navigation. (3 marks)
- d) Identify **TWO (2)** categories of kiosk and give **ONE (1)** example of each. (4 marks)

QUESTION 2**Figure 1: Computer hardware**

- a) Refer to Figure 1 above, describe **FIVE (5)** major components of multimedia hardware peripherals. (10 marks)
- b) Differentiate between development system and playback system that have been applied in today Multimedia Industry. (4 marks)
- c) Give **FIVE (5)** types of storage. (5 marks)
- d) There are two types of digital compression which are lossy and lossless. Compare **TWO (2)** characteristics of them and give **ONE (1)** example of each. (6 marks)
- e) Explain **TWO (2)** challenges in multimedia database. (4 marks)

QUESTION 3

- a) Differentiate between typeface and font in Text technology. (4 marks)
- b) List **FOUR (4)** guidelines used in Text usage for Multimedia presentation. (4 marks)



Figure 2: Text Image

- c) Explain **THREE (3)** drawbacks of converting text into graphic in Figure 2 above. (6 marks)

QUESTION 4

- a) State **TWO (2)** types of still image and describes each type. (6 marks)
- b) Identify **FOUR (4)** purposes of the graphical image used. (4 marks)
- c) Consider an image of dimensions 640 × 480 pixel and color depth of 16 bits. Calculate the size of that image file in KB. (4 marks)
- d) Describe **TWO (2)** advantages of using draw-type graphics. (4 marks)
- e) List **THREE (3)** types of graphics file formats for web application. (3 marks)
- f) Explain **FOUR (4)** features that enable users to capture and edit in image editing programs. (8 marks)

QUESTIONS 5

- a) State **TWO (2)** characteristics of sound wave. (2 marks)
- b) Identify **THREE (3)** types of audios in multimedia applications. (3 marks)
- c) Give **FOUR (4)** examples of sound effect that can be generated by sound editing software. (4 marks)
- d) An audio clip has duration of 1 minutes. The highest frequency in the sound wave is 15 kHz. This is to be sampled using 16 bits per sample and in stereo mode. Calculate the size of the file in MB. (4 marks)
- e) Siti Raiqa wants to attach a link to her favorite songs on her website. She wishes to listen to all the songs before attaching a link to them. Identify the hardware that essentially required by her. (1 mark)

----- End of question -----