



University of Kelaniya – Sri Lanka
Centre for Distance & Continuing Education
Bachelor of Science (General) External
Third year second semester examination - 2019 (2025 February/March)
(New Syllabus)
Faculty of Science

Computer Studies
COST 37633 – Multimedia Technologies

No. of Questions: 04 (Four)

No. of Pages: 06 (Six)

Time: Two & half (2 1/2) Hours.

Answer All questions.

Question 01

(25 Marks)

Choose the correct answer and write its corresponding letter on the given sheet on Page 07. Attach it to the written paper.

1. What is multimedia?
 - a) A combination of text and images
 - b) The integration of text, graphics, audio, video, and animation
 - c) Only video content
 - d) Only animation content
2. What is hypermedia?
 - a) A system that uses only text and images
 - b) A combination of multimedia elements linked together
 - c) A simple document with images
 - d) A programming language for multimedia
3. What is the primary purpose of multimedia authoring tools?
 - a) To create and edit only text documents
 - b) To facilitate the creation and integration of multimedia components
 - c) To compile programming languages
 - d) To edit only video files
4. Which of the following is NOT a multimedia authoring tool?
 - a) Adobe Flash
 - b) Adobe Premiere Pro
 - c) Microsoft Excel
 - d) Macromedia Director

5. What is the first stage in a multimedia project?
 - a) Testing
 - b) Planning
 - c) Design
 - d) Deployment
6. Which of the following is NOT a requirement for a multimedia project?
 - a) High-speed internet
 - b) Storage devices
 - c) Audio-visual components
 - d) Paper documents
7. Which multimedia component helps present visual information?
 - a) Audio
 - b) Graphics
 - c) Text
 - d) Sound Effects
8. What is the smallest unit of an image called?
 - a) Pixel
 - b) Bit
 - c) Byte
 - d) Vector
9. Which of the following is a raster image format?
 - a) PNG
 - b) SVG
 - c) EPS
 - d) AI
10. What is a color lookup table (CLUT) used for?
 - a) Managing image compression
 - b) Storing a predefined set of colors for an image
 - c) Enhancing image sharpness
 - d) Reducing image file size
11. Which image format supports lossless compression?
 - a) JPEG
 - b) PNG
 - c) GIF
 - d) BMP

12. Which animation technique uses a sequence of images to create movement?
 - a) Morphing
 - b) Motion capture
 - c) Frame-by-frame animation
 - d) Rigging
13. Which color model is used in video display systems?
 - a) CMYK
 - b) HSV
 - c) RGB
 - d) LAB
14. What is the process of converting analog sound into digital form?
 - a) Sampling
 - b) Filtering
 - c) Encoding
 - d) Synthesizing
15. What does MIDI stand for?
 - a) Music and Instrument Digital Interface
 - b) Musical Instrument Digital Interface
 - c) Multimedia Integrated Digital Information
 - d) Multi-Input Digital Interface
16. Which multimedia tool is best for professional video editing?
 - a) Microsoft Word
 - b) Adobe Premiere Pro
 - c) Excel
 - d) Notepad
17. What is an important consideration in multimedia project copyright?
 - a) Ensuring the project is shared with everyone
 - b) Avoiding copyrighted materials without permission
 - c) Only using free software
 - d) Using any content without citation
18. How many entries are in an 8-bit CLUT?
 - a) 8
 - b) 256
 - c) 1024
 - d) 16

19. CLUT is most commonly used in which type of images?
- a) Grayscale
 - b) Indexed color images
 - c) True color images
 - d) Binary images
20. What does each entry in a CLUT contain?
- a) A pixel location
 - b) A color specification
 - c) A sound frequency
 - d) A text string
21. What does the term **timeline** refer to in video editing?
- a) The list of file formats used in a project
 - b) A linear representation of video and audio tracks
 - c) The resolution of the video being edited
 - d) A storyboard of the video project
22. What is **transition** in video editing?
- a) A change in file format
 - b) A visual effect used between two clips
 - c) A type of video compression
 - d) A sound effect applied to video
23. What is the purpose of **color grading** in video editing?
- a) To adjust audio levels
 - b) To enhance or change the colors in a video
 - c) To add special effects
 - d) To synchronize video with audio
24. What is the primary goal of video compression?
- a) To improve video quality
 - b) To reduce file size while maintaining acceptable quality
 - c) To add transitions between frames
 - d) To convert video to audio
25. What is the purpose of a keyframe in video compression?
- a) To store the entire frame data periodically
 - b) To store audio data
 - c) To add subtitles
 - d) To remove unnecessary frames

Question 02**(25 Marks)**

- (a) (i) Write five (05) key components of multimedia and briefly describe each. (05 Marks)
- (ii) Name two (02) file formats of the above listed media. (10 Marks)
- (b) (i) What is vector graphics and raster graphics? (04 Marks)
- (ii) Provide one (01) examples of real-world applications where vector and raster graphics are used. (02 Marks)
- (c) Describe how multimedia technologies are used in one (01) specific application area, such as education, entertainment, communication, medicine or engineering. (04 Marks)

Question 03**(25 Marks)**

Answer the following questions based on the given image.

3 inches



2 inches

- (a) (i) What is the resolution of an image? (03 Marks)
- (ii) If the resolution of the image is 72 pixels per inch, calculate the width and height of the image in pixels. (04 Marks)
- (iii) How many total pixels are in the image? (02 Marks)
- (b) (i) Name two (02) color modes and briefly explain them. (06 Marks)
- (ii) If 24 bits are used to store the color, what is the size of the above image? (03 Marks)

- (c) (i) Why is compression used? (02 Marks)
- (ii) Briefly describe two (02) types of image compression methods. (05 Marks)

Question 04

(25 Marks)

- (a) What are Keyframing and Interpolation in Animation? (06 Marks)
- (b) Name two (02) types of animation and briefly explain them. (06 Marks)
- (c) (i) What are the steps involved in designing an animation sequence? (05 Marks)
- (ii) Create a short script for an animation you have created by adapting the above steps. (05 Marks)
- (iii) Name two application software programs you can use for the above purpose. (03 Marks)

COST 37633 – Multimedia Technologies

Student Number:

Question 01

Answer Sheet

Question No.	Answer	Question No.	Answer	Question No.	Answer
1		11		21	
2		12		22	
3		13		23	
4		14		24	
5		15		25	
6		16			
7		17			
8		18			
9		19			
10		20			