

## M4.2-R4: INTRODUCTION TO MULTIMEDIA

### NOTE:

1. There are **TWO PARTS** in this Module/Paper. **PART ONE** contains **FOUR** questions and **PART TWO** contains **FIVE** questions.
2. **PART ONE** is to be answered in the **TEAR-OFF ANSWER SHEET** only, attached to the question paper, as per the instructions contained therein. **PART ONE** is **NOT** to be answered in the answer book.
3. Maximum time allotted for **PART ONE** is **ONE HOUR**. Answer book for **PART TWO** will be supplied at the table when the answer sheet for **PART ONE** is returned. However, candidates, who complete **PART ONE** earlier than one hour, can collect the answer book for **PART TWO** immediately after handing over the answer sheet for **PART ONE**.

**TOTAL TIME: 3 HOURS**

**TOTAL MARKS: 100**  
**(PART ONE – 40; PART TWO – 60)**

### **PART ONE** **(Answer all the questions)**

1. **Each question below gives a multiple choice of answers. Choose the most appropriate one and enter in the “tear-off” answer sheet attached to the question paper, following instructions therein. (1x10)**
  - 1.1 Designed to create a particular look, a \_\_\_\_\_ contains color schemes, slide and title masters with custom formatting and fonts styles.
    - A) template
    - B) presentation
    - C) slide
    - D) background
  - 1.2 The text color in a presentation should contrast with the \_\_\_\_\_ color.
    - A) CPU
    - B) frame
    - C) stack
    - D) background
  - 1.3 Adding \_\_\_\_\_ to objects on your slides not only controls the flow of information, but adds interest to your presentation.
    - A) background
    - B) transition
    - C) animation
    - D) popups
  - 1.4 The process of planning your multimedia presentation is known as
    - A) design
    - B) storyboard
    - C) development
    - D) layout

- 1.5 Which one of these files has audio
- A) frogs.avi
  - B) horse.jpg
  - C) cat.jpg
  - D) All of the above
- 1.6 Authoring tools help you to
- A) write a storyboard
  - B) search the Internet
  - C) control the presentation of multimedia elements
  - D) all of the above
- 1.7 'Zipping' a file means
- A) encrypting it
  - B) decrypting it
  - C) compressing it
  - D) transmitting it
- 1.8 The resolution of a VGA screen is
- A) 1024 x 768
  - B) 512 x 512
  - C) 640 x 480
  - D) 800 x 600
- 1.9 Which of the following is an example of hypermedia application?
- A) World Wide Web
  - B) Power Point
  - C) Adobe Acrobat
  - D) All of the above
- 1.10 The elements of multi media are
- A) video, animation, interactivity
  - B) sound, video, animation, interactivity
  - C) graphics, sound, video, animation, interactivity
  - D) text, graphics, sound, video, animation, interactivity

**2. Each statement below is either TRUE or FALSE. Choose the most appropriate one and ENTER in the “tear-off” sheet attached to the question paper, following instructions therein. (1x10)**

- 2.1 Multimedia may include text-based elements.
- 2.2 In animation, a keyframe is a frame in which the artwork differs from that of the previous frame.
- 2.3 A graphic image file name is tree.eps. This image is bitmap image.
- 2.4 MIDI data is digitized sound.
- 2.5 If the sequence and timing of these multimedia elements can be controlled by the user, then one can name it as Non-Interactive Multimedia.
- 2.6 Touch screen is basically a monitor that allows user to interact with computer by touching the display screen.
- 2.7 RGB stands for red, green and black.
- 2.8 In digital recording, the recording device needs a chip called an analog to digital convertor, which digitizes waves into a series of numbers.
- 2.9 A scanner’s resolution is measured in megapixels.
- 2.10 RAW files can be compressed so they are smaller than JPEG files.

**3. Match words and phrases in column X with the closest related meaning/ word(s)/phrase(s) in column Y. Enter your selection in the “tear-off” answer sheet attached to the question paper, following instructions therein. (1x10)**

X		Y	
3.1	a chip inside the playback device that converts numbers to analog waves	A.	Adobe Premiere Elements
3.2	compression/decompression rules implemented in hardware or software	B.	REAL TIME
3.3	image-editing program	C.	Corel Paint Shop Pro
3.4	expanding a file into its original form	D.	STREAMING
3.5	running music, for example, in real time	E.	CODECS
3.6	changing and merging one computer image into another	F.	PIXEL
3.7	can combine clips into coherent scenes, splice together scenes, and insert visual transitions	G.	Clip art
3.8	a tiny dot of white, black, or color arranged in rows on a monitor	H.	DAC
3.9	Images that are available without copyright restrictions are called	I.	Decompression
3.10	A standard interface that is used to send commands to instruments and sound sources	J.	JPEG
		K.	MORPHING
		L.	Multimedia authoring software
		M.	MIDI

4. Each statement below has a blank space to fit one of the word(s) or phrase(s) in the list below. Enter your choice in the “tear-off” answer sheet attached to the question paper, following instructions therein. (1x10)

<b>A.</b>	RAM	<b>B.</b>	Lossless	<b>C.</b>	Sequential
<b>D.</b>	Gray-scale	<b>E.</b>	Real time	<b>F.</b>	Burning
<b>G.</b>	Bitmapped	<b>H.</b>	CAD	<b>I.</b>	PostScript
<b>J.</b>	Streaming	<b>K.</b>	CAM	<b>L.</b>	Lossy
<b>M.</b>	Resolution				

- 4.1 Painting programs create \_\_\_\_\_ graphics.
- 4.2 \_\_\_\_\_ graphics allow each pixel be shown on the monitor as black, white, or a shade of gray.
- 4.3 The clarity of a monitor is known as \_\_\_\_\_.
- 4.4 When a digital image is currently being viewed on a computer screen, it is actively loaded into \_\_\_\_\_.
- 4.5 A standard page-description language for describing text fonts, illustrations, and other elements of the printed page is called \_\_\_\_\_.
- 4.6 When using a(n) \_\_\_\_\_ compression system, a file can be compressed and decompressed without loss of data.
- 4.7 \_\_\_\_\_ software is used by engineers to design products.
- 4.8 When a document or media is to be accessed and read from beginning to end, it is known as \_\_\_\_\_.
- 4.9 The process of copying files to a CD is known as \_\_\_\_\_.
- 4.10 When something is displayed at the same time as it is created, accessed, or imported, it is known as \_\_\_\_\_.

**PART TWO**  
(Answer any **FOUR** questions)

**5.**

- a) Explain the use of the following hardware components in multimedia.
  - i) Scanner
  - ii) Central Processing Unit
  - iii) Soundcard
- b) Describe the process of the digitisation of an analog sound. Define what a sample is, the frequency of occurrence and how these factors can affect the quality of sound.

**(9+6)**

**6.**

- a) With reference to the multimedia on the web, answer the following:
  - i) Explain the importance of digitization in the use of multimedia on the web.
  - ii) Why is the bandwidth bottleneck an important consideration for Web site developers?
  - iii) Why must multimedia content be compressed and decompressed for use on the web?
- b) Briefly explain about the different techniques used for video compression.

**(9+6)**

**7.**

- a) What is the use of authoring tool in multimedia development?
- b) Compare and contrast the main advantages and disadvantages of bitmap graphics and vector graphics.
- c) What is meant by the word Hypermedia? How is it different from Multimedia?

**(5+5+5)**

**8.**

- a) List five areas where multimedia can be used in a business application.
- b) What is the purpose of streaming audio and video files?
- c) Differentiate between bitmapped fonts and vector fonts.

**(5+5+5)**

**9.**

- a) What is animation? What is frame by frame animation? What is meant by persistence of vision with respect to animation?
- b) Define antialiasing. What is the use of antialiasing in multimedia?

**(9+6)**