

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 Which of the following has replaced NTSC (National Television System Committee)?
 - A) ATSC
 - B) DVI
 - C) HDTV
 - D) MPEG2
 - 1.2 Which of following is a painting program and image editing program?
 - A) Designer
 - B) FreeHand
 - C) Illustrator
 - D) Photoshop
 - 1.3 Which of the following is a codec?
 - A) DVI
 - B) H.264
 - C) MPEG
 - D) QuickTime
 - 1.4 The scripting language of Flash is called
 - A) ActionScript
 - B) ECMAScript
 - C) JavaScript
 - D) RunTime
 - 1.5 Which kind of authoring system is Adobe Flash?
 - A) Card-based
 - B) Page-based
 - C) Time-based
 - D) Icon-based

- 1.6 SVG stands for
- A) standard video graphics
 - B) serial viewable graphics
 - C) symmetrical variable graphics
 - D) scalable vector graphics
- 1.7 Which of the following statements regarding the MIDI audio format is true?
- A) It is difficult to change instruments.
 - B) Sound tracks can be edited using waveform editors.
 - C) Files are generally larger than the same digital audio sound.
 - D) Stretching and changing the sound distorts the quality.
- 1.8 What is the benefit of having animations rendered at the time when the user views them?
- A) They typically can have higher frame rates.
 - B) They can incorporate more elements.
 - C) They are usually more realistic.
 - D) They can be made interactive.
- 1.9 The individual conceptual elements which are connected in hyperlinked documents are called
- A) sites
 - B) chunks
 - C) anchors
 - D) nodes
- 1.10 How many different colors is a 16-bit image capable of representing?
- A) 2
 - B) 16
 - C) 256
 - D) 65,536

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 The process of adjusting the volume of a sound to bring it to a standard level is called quantization.
- 2.2 Some DVDs have a capacity up to four times that of others, because they have multiple tracks.
- 2.3 CRT screens draw each frame in two passes.
- 2.4 Top-quality broadcast cameras and even camcorders may have as many as three CCDs (one for chrominance, one for luminance, one for synch).
- 2.5 MP3 files are actually the sound part of MPEG files.
- 2.6 JPEG image compression works in part by "rounding off" less-important visual information.
- 2.7 Computer monitors have lesser resolutions than most televisions.
- 2.8 A color palette is a plate that has multiple colors on it.
- 2.9 Character Sets displays mappings between byte or byte values and the actual character glyphs seen on the screen or printer.
- 2.10 With streaming technology, audio or video files are played as they are downloading, or streaming, into the computer.

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	Multimedia distributed over wires, glass fiber, or airwaves on a network requires large amounts of	A.	multimedia
3.2	The collection of measurements applied to individual characters called	B.	kinematics
3.3	The K in CMYK stands for	C.	audio data compression
3.4	The quality of audio is based on the quality of recording and not the device on which the end user will play the audio, that's because digital audio is	D.	Framing
3.5	The study of the movement and motion of structures connected with joints is known as	E.	character metrics
3.6	An animated object is referred as a(n)	F.	Black
3.7	The specialist who makes sure that the subject matter of an educational project is well structured and appropriately presented for the user is a(n)	G.	.wav
3.8	In the Clip Art task pane, the standard extension of an "event" sound such as a door closing sound is	H.	instructional designer
3.9	Speech encoding is an important category of	I.	device independent
3.10	Plugins are software programs that work with your Web browser to display	J.	bandwidth
		K.	animation
		L.	Sprite
		M.	Morphing

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)

A.	Dithering	B.	Lempel–Ziv (LZ)	C.	pixels per inch
D.	monochromatic color	E.	Custom Animation	F.	Effect options
G.	Dots per inch	H.	descenders	I.	Windows Media
J.	Times new roman	K.	svg	L.	TrueType
M.	Color pallet				

- 4.1 The space between lines of text is called _____.
- 4.2 _____ also occurs when a display monitor attempts to display images specified with more colors than the monitor is equipped to handle.
- 4.3 A(n) _____ font is a group of vectorial drawings. They can be scaled with no loss of quality.
- 4.4 The HTML5 specification includes animations built within a(n) _____ file.
- 4.5 _____ control the movement for how data appears when a chart is animated.
- 4.6 If sound effects are added using the _____ task pane, the sound becomes a part of an animation effect.
- 4.7 The _____ format is developed by Microsoft.
- 4.8 The _____ compression methods are among the most popular algorithms for lossless storage.
- 4.9 In digital measurement, the display resolution would be given in _____.
- 4.10 A _____ scheme consists of different values (tints and shades) of one single color.

PART TWO

(Answer any **FOUR** questions)

5.

- a) Hypertext and Hypermedia are new ways of presenting and browsing information. What is the importance of them in multimedia application development? Give the difference between them.
- b) Explain some of the issues related to transmission of data on the Internet. Also, list few solution for addressing these problems.
- c) The primary characteristic of a multimedia system is the use of more than one kind of media to deliver content and functionality. List and explain the basic five Elements of Multimedia system.

(5+5+5)

6.

- a) Plug-ins and media players are software programs that allow user to experience multimedia on the web. Explain the use of Plug-ins and media players in multimedia.
- b) To develop the system of multimedia, various hardware/ software components are used. What are the hardware and software used in development of multimedia systems?
- c) The objective of image compression is to reduce irrelevance and redundancy of the image data in order to be able to store or transmit data in an efficient form. Which are the types of Image Compression? List the methods of each of the compression type.

(4+5+6)

7.

- a) What is sound synthesis? What are the applications of sound synthesis?
- b) Explain the term tweening.
- c) What do you mean by 'Consistency of Vision' in term of multimedia?
- d) Define MIDI. List its attribute. Compare and contrast the use of MIDI and digitized audio in multimedia production.

(3+3+3+6)

8.

- a) Which are the different video formats used by HTML to deliver video? Briefly explain each of them.
- b) Give the detailed comparisons of Image File Formats-JPG, TIFF, PNG, and GIF. Which are the major considerations to choose the necessary image file type?

(7+8)

9.

- a) What is morphing? Write the applications of morphing.
- b) What is Flash? What are the advantages of using Flash over HTML?
- c) List and explain multimedia authoring tools.

(3+6+6)