

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 **OMR ANSWER SHEET** only, supplied with 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 “OMR” answer sheet supplied with the question paper, following instructions therein. (1x10)**
 - 1.1 With reference to multimedia elements, pick the odd-one out of the following:
 - A) Animation
 - B) Audio
 - C) Video
 - D) Voice Script
 - 1.2 A bitmap graphic is also called a(n) _____ graphic.
 - A) vector
 - B) raster
 - C) analog
 - D) 3-D
 - 1.3 A smaller version of an image is called a
 - A) thumbnail
 - B) bitmap
 - C) portable network graphic
 - D) clipart
 - 1.4 Before building a presentation with a multimedia authoring system, the designer would use a _____.
 - A) flowchart
 - B) hypermedia database
 - C) button file
 - D) storyboard
 - 1.5 Which of the following is not a video file extension?
 - A) MP4
 - B) AVI
 - C) JPG
 - D) MOV
 - 1.6 _____ is the special effect used to introduce each slide in a slide presentation.
 - A) Transition
 - B) Bulleting
 - C) Animation
 - D) Mapping

- 1.7 Vector images are _____.
- A) composed of pixels
 - B) composed of thousands of dots
 - C) slightly more difficult to manipulate than other images
 - D) composed of objects such as lines, rectangles, and ovals
- 1.8 An essential ingredient for effective multimedia presentations incorporates user participation or _____.
- A) links
 - B) buttons
 - C) interactivity
 - D) integration
- 1.9 Popular multimedia authoring programs include the following except for
- A) Macromedia Director
 - B) QuarkXPress
 - C) Authorware
 - D) Toolbox
- 1.10 Creating Web sites is called
- A) Web authoring
 - B) HTML creating
 - C) Storyboard designing
 - D) Web mapping

2. Each statement below is either TRUE or FALSE. Choose the most appropriate one and ENTER in the "OMR" answer sheet supplied with the question paper, following instructions therein. (1x10)

- 2.1 WAV format has larger file size as compared to MP3 file format.
- 2.2 Codec can be hardware-based, software-based, or both.
- 2.3 In animation, a keyframe is a frame in which the artwork differs from the previous frame.
- 2.4 When using MIDI instruments, quantizing is used to correct a musician's timing.
- 2.5 Multimedia authoring software is used to create and edit documents that can include graphics, text, video clips and sounds.
- 2.6 One of the disadvantages of multimedia is adoptability.
- 2.7 RGB is a description of primary colour in a image on a computer monitor.
- 2.8 EMBED HTML Tag is used to insert a Flash movie in a web page.
- 2.9 A bit can contain one of two possible values 1 or 2.
- 2.10 The density of pixels on a screen is known as pixel depth.

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 “OMR” answer sheet supplied with the question paper, following instructions therein. (1x10)

X		Y	
3.1	are dots on a computer screen arranged in rows.	A.	Vector graphic
3.2	is composed of a grid of dots.	B.	Raster graphic
3.3	Software that stores lines and shapes rather than individual pixels is known as	C.	MPEG
3.4	CAD software is primarily used in	D.	Burning
3.5	The process of copying files to a CD is known as	E.	Compression software
3.6	Music played on a computer but never downloaded is known as	F.	Sampling
3.7	A standard interface used to send commands between computers and musical instruments is	G.	Morphing
3.8	Squeezes data into smaller sizes.	H.	Decompressing
3.9	Expanding a file into its original form	I.	MIDI
3.10	Changing and merging one computer image into another	J.	Streaming
		K.	Engineering
		L.	Pixels
		M.	A bitmap graphic

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 “OMR” answer sheet supplied with the question paper, following instructions therein. (1x10)

A.	Digitizer	B.	Bitmapped	C.	Vector or object oriented
D.	Animation	E.	SubScript	F.	PostScript
G.	Layout	H.	Storyboard	I.	Scalable vector graphics
J.	Drawing	K.	Frames per second	L.	Sound/music/audio
M.	Video file				

- 4.1 MP3 is an extension of a(n) _____ file.
- 4.2 FPS stands for _____.
- 4.3 A most basic skill a person requires to pursue an animation career is _____.
- 4.4 SVG stands for _____.
- 4.5 A(n) _____ describes the action, dialogue and music for each scene of a video.
- 4.6 _____ is a standard page-description language built into many high-end output devices.
- 4.7 The creation of motion from still pictures is called _____.
- 4.8 Hardware used to convert analog signals into digital data is called a(n) _____.
- 4.9 When you use a digital camera, your photo is stored as a(n) _____ image.
- 4.10 _____ graphic software stores a picture not as a collection of dots, but as a collection of lines and shapes.

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

- 5.**
a) Define Multimedia. Explain the application of multimedia in web and Internet.
b) Explain the differences among multimedia, interactive multimedia, hypertext and hypermedia.
c) What challenges are faced in transmitting multimedia on the Internet? What are the solutions for overcoming these challenges?
(5+5+5)
- 6.**
a) Describe what MIDI is, what its benefits are and how it is best used in a multimedia project.
b) What is Sound Synthesis? What are the applications of Sound Synthesis?
c) Explain in brief the concept of Dithering.
(5+5+5)
- 7.**
a) Explain the importance of GIF and TIFF file formats.
b) Describe the compression technique of JPEG images.
(6+9)
- 8.**
a) What is MPEG standard? What are the roles of I_, B_ and P_ frames in MPEG encoding?
b) Explain cell animation and the concept of morphing.
(6+9)
- 9.**
a) What is a multimedia authoring tool and what are its main features?
b) Describe how authoring systems include multimedia elements.
(8+7)