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   A smaller version of an image is called a
A)   thumbnail
B)   bitmap
C)   portable network graphic
D)   clipart

1.2   Which of the following is not a video file extension?
A)   MP4
B)   AVI
C)   JPG
D)   MOV

1.3   Which one of the following statement is true?
A)   MIDI files are generally larger than WAV files.
B)   Video files are generally much larger than Audio files.
C)   Audio and Video are one and the same.
D)   Nearly all 5 minute movie clips are under 1M in size.

1.4   A(n) _____ is design tool that shows the overall flow of a multimedia presentation.
A)   link
B)   graphical map
C)   storyboard
D)   Gantt chart

1.5   Which of the following is the best definition of Virtual Reality?
A)   Any computer game involving graphics.
B)   A 3D simulation of a real or imagined environment using computers.
C)   A simulator which require special eye glasses.
D)   The process of coding in another dimension.

1.6   How many different colors is a 16-bit image capable of representing?
A)   2
B)   16
C)   256
D)   65,536

1.7   One of the disadvantages of Multimedia?
A)   Cost
B)   Adaptability
C)   Usability
D)   Relativity

1.8   A specialized program used to create multimedia presentations is a _____.
A)   Web authoring program
B)   Desktop publishing program
C)   Multimedia authoring program
D)   Illustration program

1.9   The model that is based on the light- absorbing quality of Ink printed on paper is known as?
A)   RGB model
B)   HSB model
C)   CMYK model
D)   None of the above

1.10   With reference to multimedia elements, pick the odd-one out of the following:
A)   Graphics
B)   Animation
C)   Audio
D)   Voice Script

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   JPEG is compression technique and use lossless compression technique.

2.2   Morph stands for Manipulate still images to create animated transformations.

2.3   In Interlacing, the electronic beam makes two passes on the screen while drawing a single video frame.

2.4   Bitmaps is used to create one bit per pixel to indicate whether pixel is black or white.

2.5   Scanning tools are those tools that are used to edit existing bitmap images and pictures.

2.6   (OLE) is a technology for communication between multiple applications under Microsoft Windows and OS/14.

2.7   Image resolution and pixel dimension are not interdependent.

2.8   A color palette is a plate that has multiple colors on it.

2.9   Authoring Tools are software programs that work with your web browser to display framing.

2.10   All wireless networks generate RF waves and hotspots.

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	K in CMYK stands for	**A.**	Extension of Multimedia
3.2	Automation refers	**B.**	Executable Archive
3.3	Rendering	**C.**	Morphing
3.4	Effect that change one image into another	**D.**	Having one container or server application drive another application
3.5	Vector Drawing use	**E.**	Storage server for MIDI data
3.6	Virtual Reality	**F.**	3D Animation
3.7	Public Domain	**G.**	Key
3.8	Self-extracting Files	**H.**	Cartesian Co-ordinates
3.9	Synchronization of all media components for final multimedia application	**I.**	Freely without a license
3.10	Sequencer	**J.**	Authoring Tool
		K.	Animation
		L.	Audio data compression
		M.	Kinematics

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.	Cell Animation	**B.**	Multimedia	**C.**	Authoring
D.	Bitmap	**E.**	Windows Media	**F.**	Virtual Reality Modeling Language
G.	File Sound/ Music/Audio File	**H.**	Decibels	**I.**	Direct
J.	MIDI	**K.**	Watt	**L.**	Development
M.	Joint Photographic Experts Group				

4.1 The process of planning your multimedia presentation is known as a _____.

4.2 Images made up of thousands of pixels are called _____.

4.3 _____ is a shorthand representation of music stored in numeric form.

4.4 Another name for 2D Animation _____.

4.5 Mp3 is an extension of a _____ file.

4.6 Sound pressure is measured in _____.

4.7 _____ refers to any type of application or presentation involves more then one type of media, animation and sound.

4.8 _____ tools are used to merge multimedia elements into a project.

4.9 VRML is _____.

4.10 Networking is essential for _____ communication and sharing of resources across platforms.

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

5.
a) Define Multimedia. Identify a situation where multimedia is used in the areas of education and training, entertainment, virtual reality and simulation.
b) Describe the feature of Presentation Tools.

(9+6)

6.
a) What are Image Editing Tools?
b) What are the advantages and disadvantages of Video Compression?
c) What does White Balance mean?

(6+5+4)

7.
a) Explain the components of MIDI.
b) What are the four Broadcast Video Standards commonly in use?
c) Explain in brief the following:
   i) Cell Animation
   ii) Morphing

(5+5+5)

8.
a) What is authoring tools? Explain in brief the Card and Icon based Authoring Tools.
b) Briefly describe how improvements in bandwidth, increased storage capacity and powerful CPUs have influenced the development of multimedia?
c) Distinguish Additive and Subtractive Colors and write their area of use.

(5+5+5)

9.
a) Explain the following questions based on Macromedia Flash.
   i) Differentiate between Shape Tweening and Motion Tweening.
   ii) What is the difference between a frame and a key frame?
b) Explain in brief the following:
   i) Vector Graphics
   ii) Dithering
   iii) Differentiate between GIF and JPEG

(6+9)