

## M4.2-R4: INTRODUCTION TO MULTIMEDIA

### NOTE:

#### **IMPORTANT INSTRUCTIONS:**

1. Question Paper in English and Hindi and Candidate can choose any one language.
2. **In case of discrepancies in language, English version will be treated as final.**
3. There are **TWO PARTS** in this Module/Paper. **PART ONE** contains **FOUR** questions and **PART TWO** contains **FIVE** questions.
4. **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.
5. 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 Which of the following statement about GIF is true?
    - A) The GIF file format supports 8-bit images
    - B) GIF images cannot be used to create simple animations
    - C) GIFs use a lossless compression scheme
    - D) GIFs are saved with a .gbf extension
  - 1.2 Popular multimedia authoring programs include the following except for
    - A) Macromedia Director
    - B) QuarkXPress
    - C) Authorware
    - D) Toolbox
  - 1.3 Streaming Audio
    - A) Stops playing when the user disconnects from the Internet
    - B) Is automatically stored on the local computer
    - C) Must be recorded and played using a synthesizer
    - D) Must be stored on a MIDI instrument
  - 1.4 CorelDraw is an example of a(n) \_\_\_\_\_
    - A) GroupWare Application
    - B) Bit Publishing Package
    - C) Paint Program
    - D) Graphics Suite
  - 1.5 \_\_\_\_\_ format is a cross-platform format used for time-based data, such as video and audio.
    - A) Raw
    - B) Quick Time Movie
    - C) Scitex Continuous Tone
    - D) PIXAR

- 1.6 Each Pixel has a grey value between.  
A) 0 to 230  
B) 0 to 25  
C) 0 to 1  
D) 0 to 250
- 1.7 Compression technique used for text is \_\_\_\_\_  
A) Lossy  
B) Loseless  
C) Run Length Coding  
D) Vector Quantisation
- 1.8 Acronym for EXIF is \_\_\_\_\_  
A) exchange Image File  
B) exchange Import File  
C) exchange Image Format  
D) extensible Image File
- 1.9 Vector Images are \_\_\_\_\_  
A) composed of Pixels  
B) composed of thousand of dots  
C) slightly more difficult to manipulate than other images  
D) composed of objects such as lines, rectangles and ovals
- 1.10 \_\_\_\_\_ does not affect the original quality and size even if you resize the object  
A) Transform  
B) Clipping Mask  
C) Smart Object  
D) Rasterizing

**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 PostScript Type 12 fonts are considered the industry standard and are the most reliable when printing to high-end digital devices such as image setters and digital presses.
- 2.2 Image resolution and pixel dimensions are not interdependent.
- 2.3 Macromedia Director is an example of a popular desktop publishing program.
- 2.4 Multimedia Presentation can be Linear or Nonlinear or Structured Link or Web Page.
- 2.5 A graphic Image File name is tree.eps. This file is a Bitmap Image.
- 2.6 CODEC can be Hardware based, Software based or Both.
- 2.7 The HTML Tag used to insert a Flash movie in a web page is EMBED.
- 2.8 Vector Animation is another name of 2D animation.
- 2.9 MP3 file format has smaller file size than WAV file format.
- 2.10 ActionScript is the name of the programming/Scripting language of Flash.

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	Refers to the rate at which data is processed or transferred	A.	Story Board
3.2	The Slide that controls text, characteristics and back ground color such as shadowing and bullet style	B.	Authoring
3.3	Images made up of thousand of pixels are called	C.	Video Conferencing
3.4	CAD software is primarily used in	D.	Quick Time
3.5	Method of animation created the in-between frames when you create the start and end points of the animation	E.	Bitmap
3.6	Shows the logic, flow and structure of a multimedia presentation	F.	Data Compression
3.7	Software used to combine text, graphics, animation, audio and video	G.	Tweening
3.8	Transporting real-time voice and video over telecommunications services	H.	Engineering Drawing
3.9	A software developed by Apple, that supports time-based media on the Macintosh	I.	Master
3.10	Process that condenses files so that they can be stored in less space and transmitted over the internet at a faster rate	J.	Thumbnail
		K.	Data Rate
		L.	Sorter
		M.	Tweaking

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.	Clipart	B.	Template	C.	Pixel Map
D.	White Balance	E.	Pal	F.	Secam
G.	Gamma	H.	Hue	I.	Morphing
J.	Thumbnail	K.	Bitmap	L.	Resampling
M.	Rasterizing				

- 4.1 \_\_\_\_\_ is the process of converting vector based layers into pixel based layers.
- 4.2 \_\_\_\_\_ is a process in which Photoshop responds to your size-change request either by adding or subtracting pixels.
- 4.3 \_\_\_\_\_ is a smaller version of an image.
- 4.4 \_\_\_\_\_ is the one of the three attributes of colour.
- 4.5 Images included in many software titles are called a \_\_\_\_\_.
- 4.6 Effect that changes one image into another is called \_\_\_\_\_.
- 4.7 \_\_\_\_\_ is the name of the non-linear operation used code and decodes luminance values in video or still image systems.
- 4.8 \_\_\_\_\_ is the video standard introduced in early 1960's and implemented in France and transmits colour information sequentially.
- 4.9 \_\_\_\_\_ is a spatially mapped array of pixels.
- 4.10 \_\_\_\_\_ is the process of removing unrealistic color casts.

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

- 5.**
- a) What are the functionalities that must be provided in a system designed to support the integration of multimedia into a multimedia presentation?
  - b) What is Hypermedia and Hypertext? Explain in brief the types of Hypermedia.
  - c) Name the type of sound objects that can be used in Multimedia.
- (5+5+5)**
- 6.**
- a) Explain in brief the various components of a multimedia.
  - b) Briefly outline the MPEG-4 structured Audio Standard.
  - c) Explain in brief about the following:
    - i) Image Editing Tools
    - ii) Colour Attributes
- (5+5+5)**
- 7.**
- a) Why Data Compression is necessary for Multimedia activities? Distinguish between MPEG1 and MPEG2 Video Compression Techniques.
  - b) What is MIDI and how is the basic MIDI message structured?
  - c) Briefly explain the issues involved in transmitting the data on the Internet.
- (8+4+3)**
- 8.**
- a) Briefly explain the Card based and Icon based Authoring Tools.
  - b) Differentiate between PNG, GIF and TIFF Image File Format. Which are the main considerations to choose the necessary image file type?
  - c) What is Morphing?
- (6+6+3)**
- 9.**
- a) Explain in detail the application of Multimedia in the field of EDUCATION and VIRTUAL ENVIRONMENT.
  - b) Explain in brief **any two** of the following:
    - i) Shape Tweening and Motion Tweening
    - ii) RIFF and TIFF File Format
    - iii) Additive and Subtractive Colours
- (9+6)**