Total No. of printed pages = 7

END SEMESTER EXAMINATION – 2022

Semester : 3rd (New/Old)

Branch: Computer Engineering

Subject Code : CO-302

ELEMENTS OF MULTIMEDIA

Full Marks – 70

Time – Three hours

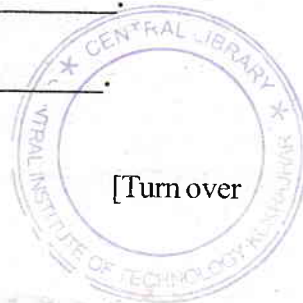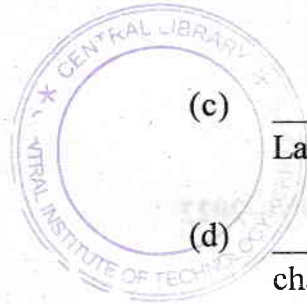The figures in the margin indicate full marks for the questions.

Instructions :

1. *All* questions of PART–A are compulsory.
2. Answer any *five* questions from PART–B.

PART – A

Marks – 25

1. Fill in the blanks :   1×10=10

   (a) MPEG stands for _____.

   (b) ASCII stands for _____.

[Turn over

(c) _____ stands for Hypertext Markup Language.

(d) _____ is a family of graphic characters that usually include many type sizes and styles.

(e) The combination of text, graphic and audio elements into a single collection or presentation is called _____.

(f) Collection of images rapidly displayed to provide visual change over time is called _____.

(g) _____ is the branch of physics that studies sound.

(h) _____ is a matrix of the individual pixels that form an image.

(i) _____ is a collection of still images in a single file played back in a timed sequence to provide animation.

(j) Audio that represented as a series of binary numbers is called_____.

2. Write true or false :   1×10=10

   (a) MPEG is the file format standard and compression specifications for video and audio data.

   (b) MIDI is the instruction based system for creating music.

   (c) HTTP stands for Hypertext Transmission Protocol.

   (d) GUI stands for Graphical User Interface.

   (e) MPEG stands for Multiple Program Experts Group.

   (f) Animation occurring on the flat Cartesian x and y axes is called 3-D animation.

   (g) Animation occurring in three axes x, y, and z is called 3-D animation.

   (h) SND is the file format for storing sound data.

   (i) VGA stands for Video Graphic Array.

   (j) Motion created by moving an object along a determined path is called address animation.

3. Choose the correct answer : 1×5=5

(a) MP3 is a

    (i) Text file format

    (ii) Video file format

    (iii) Audio file format

    (iv) Image file format

(b) The standard document format used for pages on the web is called.

    (i) XML   (ii) HTML

    (iii) UML   (iv) DML

(c) File extension of Portable Network Graphic format is

    (i) .GIF   (ii) .Text

    (iii) .MNG   (iv) .PNG

(d) _____ is the instruction based system for creating music.

    (i) MIDI   (ii) MP3

    (iii) Wave   (iv) MP4

(e) JPEG

    (i) Joint Photographic Experiment Group

    (ii) Joint Photographic Experts Group

    (iii) Joint Photograph Experts Group

    (iv) Joint Photographic Expertise Group.

PART – B

Marks – 45

4. (a) What is multimedia ? Describe the various application of multimedia.   1+5=6

   (b) Discuss the importance of text in a multimedia presentation.   3

5. (a) Write the principle of Microphone.   3

   (b) Discuss briefly the principle of digital still camera.   3

   (c) Write briefly about perception of human eye.   3

6. (a) Define digital audio. Discuss the general principles of sound and how it can be used in a multimedia project ? 1+3=4

   (b) Discuss the audio file formats used in multimedia projects and how they are used. 5

7. (a) What is Sampling ? State Nyquist theorem. 1+3=4

   (b) What is ADC ? Describe the ADC process. 1+4=5

8. (a) What is color model ? Describe the basic color model. 1+4=5

   (b) State the difference between vector graphics and bit map graphics. 4

9. Answer the following : 1×9=9

   (a) What is Psychoacoustic ?

   (b) What is Analog signal ?

   (c) What is MIDI ?

   (d) What is GIF ?

(e)   What is Luminance ?

(f)   What is lossy compression technique ?

(g)   What is Pixel ?

(h)   What are additive colour and subtractive colour ?

(i)   What is hypermedia ?