

Total number of printed pages = 5

19/2nd Sem/DAMT 202

2022

ELEMENTS OF MULTIMEDIA

Full Marks – 100

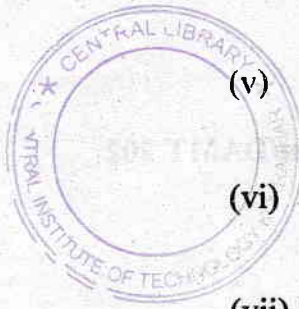
Time – Three hours

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

Answer Question No.1 and any *four* from the rest.

1. (a) Fill in the blanks : 1×10=10
- (i) Time independent media are called _____ media.
 - (ii) The two amplitude levels of a digital signal are called _____.
 - (iii) 8-bit colour images are also called _____ colour images.
 - (iv) White, black and grey are _____ colours.

[Turn over



(v) The unit of sound volume is measured in _____.

(vi) The waveform of noise is _____ in nature.

(vii) Each still image in a video is called as a _____.

(viii) _____ describes the dimensions of video screens.

(ix) The range of a PAN is _____ metres.

(x) mIRC is an example of an _____.

(b) Write True or False : $1 \times 10 = 10$

(i) Analog hardware is flexible.

(ii) Lempel Ziv Welch Coding is a lossy data compression technique.

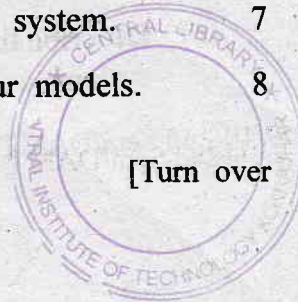
(iii) Cone cells are better for low light vision.

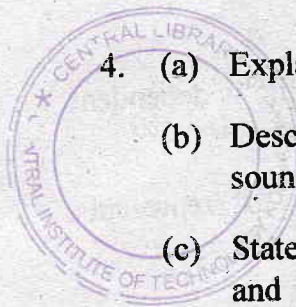
(iv) Mixing of the primary colours Red and Blue yields Yellow.

(v) Sounds higher than 20 KHz are called ultrasounds.

- (vi) The quality of a MIDI file is dependent on the size of the file.
- (vii) In a 1080p video, the 'p' represents pixels.
- (viii) In a component video, the colour information is carried out in three different channels.
- (ix) To experience Augmented Reality, one requires a mobile phone with a good video camera.
- (x) Google is a web browser application.

- 2. (a) Mention six fields with examples where multimedia can be applied? 6
- (b) What are the characteristics of a multimedia system? 4
- (c) Describe the process of ADC and DAC with a diagram. 10
- 3. (a) What do you understand by colour perception? 5
- (b) Briefly describe the various colour depths available in a computer system. 7
- (c) Describe any four colour models. 8





- 4. (a) Explain acoustics and psychoacoustics. 4
- (b) Describe the characteristics of musical sounds. 6
- (c) State the differences between Digital Audio and MIDI. 10

- 5. (a) Discuss the different TV broadcast standards. 6
- (b) Describe the following : 3×3=9
 - (i) Component Video
 - (ii) Composite Video
 - (iii) Stereoscopic Video.
- (c) What is sampling ? State Nyquist's Sampling Theorem. 5

- 6. (a) What are the different types of computer networks ? Explain them with a diagram. 8+2=10
- (b) What is an email and what are its characteristics ? 2
- (c) Describe the different types of Virtual Reality systems. 8

7. Write short notes on any *four* of the following :

4×5=20

- (a) Typefaces
- (b) Emoticons
- (c) Document Orientation
- (d) ASCII Character Set
- (e) Unicode
- (f) Script.

