

Total No. of printed pages = 3

Co-404/EOM/4th Sem/2014/N

## ELEMENTS OF MULTIMEDIA

Full Marks – 70

Pass Marks – 28

Time – Three hours

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

Answer any *five* questions.

1. (a) Define Multimedia. What are the elements of multimedia ? Write a brief note on the uses of multimedia in the field of education. 2+2+3=7
- (b) Define the term psychoacoustic. Why psychoacoustic is important in multimedia ? 4
- (c) What do you mean by digital audio ? 3
2. (a) Define the following terms : 6
  - (i) Quantization
  - (ii) Clipping
  - (iii) Sampling.

[Turn over

- (b) Why audio compression is important ? Write the different types of audio compression technique briefly. 8

3. Define briefly the following terms :

- (i) Additive colour
- (ii) Subtractive colour
- (iii) Colour depth
- (iv) Colour model
- (v) Colour characteristics
- (vi) Cropping
- (vii) Scaling.

7×2=14

4. (a) Write a brief note on perception of human eye. 4

(b) What is image compression ? Why it is needed ? 4

(c) Write brief notes on the following : 3×2=6

- (i) JPEG
- (ii) Lossy and non-lossy image compression
- (iii) TIFF.

5. (a) Define video formats – lines, fields and frames. 6
- (b) What are the different types of TV broadcast standards ? Write briefly about them. 8
6. (a) Why video compression is important ? Write some techniques of video compression. 8
- (b) Write short notes on : 6
- (i) Horizontal resolution
  - (ii) Vertical resolution
  - (iii) Aspect ratio.
7. Write short notes on any *two* : 7×2=14
- (a) ADC / DAC
  - (b) MIDI
  - (c) Digital camera
  - (d) Component and composite video.