

Total No. of printed pages = 6

Co-404/EOM/4th Sem/2017/N

ELEMENTS OF MULTIMEDIA

Full Marks – 70

Time – Three hours

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

Attempt *all* the questions.

GROUP – A

Marks – 25

1. (A) Select the correct answer (any *five*) : $1 \times 5 = 5$
 - (i) Multimedia is
 - (a) Moving images and text
 - (b) Images and audio
 - (c) Integration of still and moving images, text, and sounds by means of computer technology
 - (d) Programs that combine text and images on a television screen.

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- (ii) Sound pressure is measured in _____ .
- (a) Bauds
 - (b) Bits
 - (c) Decibels
 - (d) Watts.
- (iii) Which image files are a lossy format ?
- (a) GIF
 - (b) MPEG
 - (c) JPEG
 - (d) PNG.
- (iv) RGB model are used for
- (a) Computer display
 - (b) Printing
 - (c) Painting
 - (d) Scanning.
- (v) Printers produce output by either
- (a) Impact method
 - (b) Non impact method
 - (c) Both (a) and (b) above
 - (d) None of these.

(vi) A Video consists of

- (a) Frames
- (b) Signals
- (c) Slots
- (d) Packets.

(B) Fill up the blanks. (any five) : $1 \times 5 = 5$

- (i) The branch of physics that studies sound is called _____.
- (ii) CMYK model are used for _____.
- (iii) One bit can represent _____ colors.
- (iv) The Primary Colours are _____.
- (v) Joint Photographic Experts Group (JPEG) is used to compress _____.
- (vi) The full form of PCM is _____.

(C) State true or false. (any five) : $1 \times 5 = 5$

- (i) Digital images are constructed by using signals.
- (ii) The pigment that may be defined as the absence of color is white.

- (iii) Raster images are also known as vector images.
- (iv) Photoshop is a image editing software.
- (v) TIFF is a video compression technique.
- (vi) The aspect ratio of NTSC is 4:3.

(D) Answer the following. (any ten) : $1 \times 10 = 10$

- (i) Name one element of multimedia.
- (ii) Name one digital audio format.
- (iii) Name one sound editing software.
- (iv) Give the full form of MIDI.
- (v) What do you mean by Color Depth ?
- (vi) What do you mean by Bitmap image ?
- (vii) What is the maximum number of colours that can be represented by 3 bits ?
- (viii) What do you mean by cropping ?
- (ix) Give the full form of CRT.
- (x) What is an aspect ratio ?
- (xi) Give the full form of MPEG.

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ks – 45

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g. (any five) : $3 \times 5 = 15$

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GROUP – B

Marks – 45

2. Answer the following. (any five) : $2 \times 5 = 10$
- (a) What do you mean by Digital Audio ?
 - (b) What is Sampling ?
 - (c) Define Quantization.
 - (d) What is a Colour Palette ?
 - (e) What do you mean by Lossy Compression ?
 - (f) Define line and field in terms of video formats.
 - (g) State Nyquist Theorem.
3. Answer the following. (any five) : $3 \times 5 = 15$
- (a) Write three application of multimedia.
 - (b) Why Audio compression is needed ?
 - (c) Write the principle of Amplifier.
 - (d) Differentiate between MIDI and Digital Audio.
 - (e) What do you mean by Color characteristics ?
 - (f) Write briefly about additive color.
 - (g) Write down the principle of scanner.

4. Answer the following. (any five) : $4 \times 5 = 20$

- (a) Write briefly about ADC and DAC.
- (b) Write briefly about Perception of Human eye.
- (c) Write briefly about any image compression technique.
- (d) Write briefly about color model.
- (e) Write the principle of Digital Still camera.
- (f) What do you mean by composite video and component video ?
- (g) Write briefly about any two TV broadcast standards.