

Total No. of printed pages = 6

Co-404/EOM/4th Sem/2018/M

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

1.(a) Select the correct answer : 1×5=5

(i) Which of the following is a combination of
text, audio and graphics ?

- (A) Images
- (B) Unimedia
- (C) Audio and video
- (D) Multimedia

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(ii) We can record sound by

- (A) Windows media player
- (B) Sound recorder
- (C) both (A) and (B)
- (D) None of the above

(iii) The File format that uses a shorthand representation of musical notes and durations stored in numeric form is

- (A) AIF
- (B) WAV
- (C) MID
- (D) TIFF

(iv) RGB model are used for

- (A) Computer display
- (B) Printing
- (C) Painting
- (D) Scanning

(v) A 3-bit image is capable of representing _____ different colours.

- (A) 2
- (B) 4
- (C) 8
- (D) 16

(b) Fill up the blanks (any *five*) : 1×5=5

(i) _____ is a device that is used to record a human voice or music or any sound in a computer.

(ii) CMYK model are used for _____.

(iii) _____ is a type of Audio file format.

(iv) Images that are stored using line, arcs and curves _____ images.

(v) MPEG stands for _____.

(vi) The full form of PAL is _____.

(c) State true or false. (any *five*) : 1×5=5

(i) Acoustics is the branch of physics that studies graphics.

(ii) The pigment that may be defined as the absence of color is black.

(iii) JPEG and GIF images are the most common bitmap format used on the web.

(iv) Sound Forge is an image editing software.

(v) The aspect ratio of HDTV is 4:3.

(d) Match the following :

1×10=10

(a) Grayscale mode	(i) Video file format
(b) BMP	(ii) File extensin of MIDI format music files
(c) Crop	(iii) Windows audio file format
(d) MP4	(iv) Devices at public places as information provider
(e) MID	(v) To select part of the image and discard the unselected area
(f) WAV	(vi) Graphics file in bitmap format
(g) Multimedia Kiosks	(vii) A photoshop colour mode that displays black and white images
(h) PhotoShop	(viii) Changing the size
(i) Scaling	(ix) Digital Image Software
(j) Decibel	(x) Digital video software
	(xi) Sound Pressure Level
	(xii) Digitization

GROUP – B

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

- (a) What are the functions of ADC and DAC ? Name the important factors which govern the ADC and DAC processes.
- (b) What is Sampling ? State Nyquist theorem.
- (c) Discuss briefly about colour characteristics and colour model.
- (d) Why compression is needed ? What do you mean by Lossy compression ?
- (e) Define line and field in terms of video formats.
- (f) What do you mean by composite video and component video ?

3. Answer the following (any *five*) : $5 \times 5 = 25$

- (a) Write the principle of Microphone.
- (b) What is MIDI ? Write its advantages and disadvantages over digital audio.
- (c) Write brief note on additive colour and subtractive colour.

- (d) Write briefly about JPEG image compression technique.
- (e) Write briefly about perception of human eye.
- (f) Discuss briefly the principle of digital still camera.
- (g) Write briefly about any two TV broadcast standards.