

Total No. of printed pages = 6

END SEMESTER/RETEST EXAMINATION-2019

Semester : 3rd (New)

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. Questions on 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) _____ is image editing software.
 - (b) Sound pressure level is measured in _____.

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- (c) The pigment that may be defined as the absence of colour is _____.
- (d) MP 3 is an _____ file extension.
- (e) CMYK model is used in _____.
- (f) GIF is a _____ compression technique.
- (g) The full form of JPEG is _____.
- (h) Three bits can represent _____ colours.
- (i) PAL broadcast standard contains _____ lines per frame.
- (j) The full form of CRT is _____.
2. Write true or false : $1 \times 10 = 10$
- (a) wav format is an image file format.
- (b) Compression can reduce the size of a file.
- (c) An amplifier is used to increase the amplitude of a signal.
- (d) A Raster image has to store the mathematical formulas that make-up the image, which take up less space.

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(2)



- (e) Digital camera is an input device for creating multimedia project.
- (f) Mono-chrome image contains many colours.
- (g) CLUT (Colour Look Up Table) is often called a Colour Palette.
- (h) MPEG is used to compress video.
- (i) The aspect ratio of HDTV is 4:3.
- (j) Lossy image compression is exactly reversible.
- Choose the correct answer : $1 \times 5 = 5$
- (a) _____ are kept at public places to provide information and help.
- (i) Acoustics (ii) Kiosks
- (iii) Bell (iv) None of these
- (b) Threshold of hearing is
- (i) 20 Hz (ii) 20 KHz
- (iii) 10 Hz (iv) 10 KHz

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(3)

Turn over

(c) Images made up of geometric shapes and figures, are called

- (i) Bitmap
- (ii) Raster
- (iii) Vector
- (iv) None of these

(d) MIDI data is

- (i) device independent
- (ii) dialogue independent
- (iii) device dependent
- (iv) dialogue dependent

(e) The full form of PCM is _____.

- (i) Phase Code Modulation
- (ii) Pulse Code Modulation
- (iii) Phase Alternate Code Modulation
- (iv) None of the above

PART - B

Marks-45

4. (a) Write application of multimedia in any two fields. 3

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(b) What do you mean by digital audio? 3

(c) Write the principle of amplifier briefly. 3

5. (a) What do you mean by sampling and quantization? 4

(b) State Nyquist sampling theorem. 2

(c) Write the principle of microphone. 3

6. (a) Write brief note on colour characteristics. 4

(b) Write briefly about colour model. 3

(c) What do you mean by Colour Depth? 2

(a) Why compression is necessary? 3

(b) Write briefly about Lossy compression technique. 3

(c) Write briefly about JPEG compression technique. 3

8. (a) Define aspect ratio. Write briefly about NTSC. 5

(b) Write a brief note on digital still camera. 4

9. (a) Define line, field and frame? 3

(b) Write brief note on Composite video and Component video. 6

18/CO-302/EoM(N) (5) [Turn over

- 10 Write brief note on computer monitor. 9
- 11 What do you mean by psychoacoustics? Write briefly about ADC and DAC. 4+5=9
12. What is MIDI. What are its advantages and disadvantages over digital audio ? 3+3+3=9

