Total No. of printed pages = 6

END SEMESTER EXAMINATION – 2019

Semester : 3rd

Subject Code : AMT-301

MULTIMEDIA SYSTEMS AND TECHNOLOGY

Full Marks – 70

Time – Three hours

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

Illustrate your answers with suitable sketches and
examples wherever necessary.

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)   The physical components of a computer are collectively called ———.

    (b)   Turbo C is a ——— software.

[Turn over

(c) Time independent media are called _____ media.

(d) Digital signals are denoted by _____ waves.

(e) Run-length encoding is a _____ data compression technique.

(f) A _____ is a collection of characters of a single size and style of a particular typeface family.

(g) _____ cells are better for low-light vision.

(h) The unit of sound volume is called _____.

(i) Each still picture of a video is termed as a _____.

(j) The third stage of a multimedia project is called _____.

2. Write true or false : 1×10=10

(a) MP3 is a video file format.

(b) All symbols are icons but all icons are not symbols.

(c) ASCII is a 7-bit character coding system.

(d) A 16-bit image is also known as a true color image in windows systems.

(e) MIDI files are much more compact than digital audio files.

(f) Broadcast systems are progressive formats.

(g) Composite video signals contains both luminance and chrominance information on a single channel.

(h) A navigation map is also known as a site map.

(i) Alpha releases are for public circulation.

(j) Self-extracting archives are useful for delivering projects in compressed form.

3. Choose the correct answer : 1×5=5

(a) Which among the following is a multimedia object ?

(i) Audio   (ii) Workstations

(iii) DVD   (iv) MS Office

(b) What is the shortcut key combination for undoing multiple times in Adobe Photoshop ?

(i) Ctrl+Shift+Z   (ii) Ctrl+U

(iii) Ctrl+Z   (iv) Ctrl+Alt+Z

(c) Which amongst the following digital image file formats support alpha channel ?

    (i) JPEG   (ii) BMP

    (iii) PNG   (iv) PDF

(d) The number of pins (printing mechanism) the best dot-matrix printer contains are

    (i) 09   (ii) 16

    (iii) 24   (iv) 36

(e) Which among the following is not a fundamental organizing structure ?

    (i) Linear   (ii) Rectilinear

    (iii) Hierarchical   (iv) Composite.

PART – B

Marks – 45

4. (a) What are the various areas where multimedia can be applied ?   5

   (b) Describe lossy and lossless data compression.   2+2=4

5. (a) Write in your own words why text is an important part of multimedia ?   3

   (b) Define : fonts, cases and buttons.   2+2+2=6

6. (a) What is image manipulation ? What are the different types of image manipulation ?   4

   (b) Write a short note on Dithering.   5

7. (a) What is psychoacoustics ? What are the limitations of sound for humans ?   2+3=5

   (b) What is the difference between musical sound and noise ?   4

8. (a) What are interlaced and progressive videos ? Explain them briefly.   6

   (b) Describe the television broadcast standard used in North and South America.   3

9. (a) Briefly describe Local Area Network with a diagram.   2

   (b) What are the various tools associated with Virtual Reality ?   7

10. (a) Why is testing of a multimedia project necessary before delivering it ? 3

(b) Describe Alpha Testing and Beta Testing. 6