



## VII SEMESTER B.TECH. (PRINT AND MEDIA TECHNOLOGY)

END SEMESTER EXAMINATIONS, NOV/DEC 2016

SUBJECT: ANIMATION TECHNOLOGY [CSE 459]

REVISED CREDIT SYSTEM  
(28/11/2016)

Time: 3 Hours

MAX. MARKS: 50

### Instructions to Candidates:

- ❖ Answer **ANY FIVE FULL** questions.
- ❖ Missing data may be suitable assumed.

**1A.** Explain the following types of light sources used in 3-D animation.

- a. Lamp                                      b. Sun                                      c. Area

**1B.** Explain the following types of storytelling technique.

- a. European tradition                      b. Asian tradition                      c. Traditional medium

**1C.** Explain the following visual effects techniques.

- a. Rotoscoping                              b. 3-D morphing  
c. Blue and green screen                      d. Computer generated particles

[ 03 + 03 + 04 ]

**2A.** Explain the following principles of animation.

- a. Arcs                                      b. Timing                                      c. Exaggeration

**2B.** Explain the following image compositing and blending techniques.

- a. Image sequencing                              b. Transitions between shots

**2C.** Explain the following methods of rendering.

- a. Z-buffer                                      b. Raytracing  
c. Non photorealistic rendering                      d. Branched path tracing rendering

[ 03 + 03 + 04 ]

**3A.** Explain the following image file formats.

- a. TIFF                                      b. JPEG                                      c. EPS                                      d. GIF

**3B.** Explain the following steps used in developing a character in 3-D animation.

- a. External shape                              b. Internal structure  
c. Timing of character                              d. Facial expressions

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**3C.** Explain the following concepts with respect to 3-D modelling.

- a. Object centre                      b. Vertices, edges, faces

**[ 04 + 04 + 02 ]**

**4A.** Explain the curved lines used in 3-D modelling.

**4B.** Explain the following printing processes.

- a. Electrostatic printing    b. Inkjet printing

**4C.** Explain the workflow of image mapping used in 3-D modelling.

**[ 04 + 04 + 02 ]**

**5A.** Explain the particle system used for creating particles in 3-D animation along with the workflow of creating particles in 3-D animation.

**5B.** Explain the geometric primitives used in 3-D modelling.

- a. Cylinder                      b. UV sphere                      c. Cone                      d. Grid

**5C.** Explain the file formats used in 3-D modelling.

**[ 04 + 04 + 02 ]**

**6A.** Explain the following early devices used of creating animation.

- a. Thaumatrope                      b. Zoetrope                      c. Flipbook

**6B.** Explain the following concepts with respect to 2-D animation production process.

- a. Layout                      b. Animating a walk                      c. Character construction

**6C.** Explain the following dynamic simulation techniques used in 3-D animation.

- a. Motion dynamics                      b. Rigid body dynamics  
c. Fluid dynamics                      d. Cloth simulation

**[ 03 + 03 + 04 ]**