

Total No. of Questions : 10]

SEAT No. :

**P4010**

**[5561]-717**

[Total No. of Pages : 2

**B.E. (IT)**

**MULTIMEDIA TECHNIQUES**

**(2015 Course) (414464(C)) (Elective - III)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8, Q.9 or Q.10.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right side indicate full marks.

**Q1) a)** Distinguish between author and audience and image and graphics, video and animation, production and playback. **[4]**

- b)** Calculate the audio-CD file size for **[6]**
- i) 16-bit stereo mode.
  - ii) 8-bit mono mode.

OR

**Q2) a)** What do you mean by non-linearity in multimedia presentation? **[4]**

- b)** What is chroma subsampling technique? Explain with suitable diagrams. **[6]**

**Q3) a)** What are the specification parameters of a digital image? **[4]**

- b)** Explain MPEG-4 encoder with suitable diagram. **[6]**

OR

**Q4) a)** Differentiate between lossy and lossless compression types. **[4]**

- b)** Encode the text "TOBEORNOTTOBE" using LZW coding technique and find compression ratio. **[6]**

**Q5) a)** What is meant by keyframe and tweening? What are its roles in animation? **[8]**

- b)** What is GLUT? Which are routines provided for various functions? **[8]**

OR

**Q6) a)** Explain any four principles of animation with suitable examples. **[8]**

- b)** Write a note on 1.VR Hand Gloves & Head Mounted Display. **[8]**

**P.T.O.**

**Q7) a)** What is the problem polygon mesh shading? How to solve that problem? [8]

b) What is ray-tracing? Explain direct and indirect illumination with suitable diagram. [8]

OR

**Q8) a)** Prove that "Whitted algorithm is recursive". [8]

b) What is difference between illumination and shading? What are types of illumination? [8]

**Q9) a)** Explain Resource ReSerVation Protocol (RSVP) in multimedia. [6]

b) What is meant by buffer management? How it can be beneficial for media transmission? [6]

c) What are the types of communication network which provides multimedia communication services? [6]

OR

**Q10)a)** Briefly explain following broadcast schemes for video on demand. [6]

i) Staggered broadcasting.

ii) Pyramid broadcasting.

b) Justify, "Gaming has changed its form of playing". [6]

c) What is GStreamer? Why to use GStreamer? [6]

