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T.E. (Information Technology)
MULTIMEDIA TECHNOLOGIES
(2012 Pattern) (Semester - II)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates :
  1)   All questions are compulsory.
  2)   Neat diagrams must be drawn wherever necessary.
  3)   Figures to the right indicate full marks.
  4)   Assume suitable data, if necessary.

Q1) a)   What is Authoring Tools. Explain the Authoring tools used in a Education field. **[5]**

   b)   What is Distributed Multimedia System? Explain with suitable example.**[5]**

OR

Q2) a)   Define multimedia system. What are its building blocks? Explain in brief.**[5]**

   b)   Write and explain Huffman Coding algorithm for the input with frequencies of occurrences A(3) B(5) 8(E) H(2) I(7). Construct Huffman Tree. **[5]**

Q3) a)   What are image acquisition techniques? Explain image enhancement by spatial filtering **[5]**

   b)   What are different Image File Format explain each. **[5]**

OR

Q4) a)   What are various audio compression techniques? Explain ADPCM in brief. **[5]**

   b)   Write a short note on characteristic of sound wave Amplitute, Frequency, Waveform, Speed. **[5]**

Q5) a) What is digitization of video? Explain process of digitization of video with neat sketch. **[8]**

b) What is a need of video file formats?Explain AVI and H.261 briefly. **[8]**

OR

Q6) a) What is multimedia streaming? Explain RTP and RTSP Protocols in detail. **[8]**

b) Explain with suitable diagram encoding and decoding of MPEG 4. Also explain **[8]**
   i) Profiles and levels
   ii) Descriptors
   iii) Scene Graph

Q7) a) State and explain twelve principles of animation. **[8]**

b) What is Animation? Explain different technique used to create Animation.**[8]**

OR

Q8) a) What is animation? Explain following techniques of animation **[8]**
   i) Motion Cycling
   ii) Onion Skinning

b) What is OpenGL? Write and explain main features of OpenGL. Explain OpenGL shadowing and rendering technique. **[8]**

Q9) a) What is virtual reality? How does multimedia techniques are used to implement virtual reality. **[6]**

b) Explain head mounted displays and their use in multimedia applications.**[6]**

c) What are the various categories of nodes in VRML? Explain in brief.**[6]**

OR

*Q10)*a) Explain GStreamer based Multimedia Framework. **[6]**

b) Describe Android Multimedia Framework Architecture. **[6]**

c) Differentiate between Virtual reality and Augmented reality with suitable example. **[6]**

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