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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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