P853

[4659]-231

B.E. (Computer Engineering)

a - MULTIMEDIA SYSTEMS

(2008 Pattern) (Elective-II) (Semester -I)

Time : 3Hours]   *[Max. Marks :100*

Instructions to the candidates:

1)   *Answer any three questions from each Section.*

2)   *Answers to the two sections should be written in separate answer books.*

3)   *Neat diagrams must be drawn wherever necessary.*

4)   *Black figures to the right indicates full marks.*

5)   *Assume suitable data, if necessary.*

SECTION-I

Q1) a)   What is streaming media and why it is required? Explain in brief any one audio and video streaming Technology.   **[6]**

b)   What is an API? Explain the role of API in multimedia Applications. **[6]**

c)   Explain various multimedia Building Blocks.   **[6]**

OR

Q2) a)   Explain the characteristics of multimedia database management systems with applications.   **[6]**

b)   Explain various Interaction techniques and devices.   **[6]**

c)   What is multimedia authoring tool? Explain different functions of multimedia authoring tools.   **[6]**

Q3) a)   What do you mean by image enhancement. Explain the concept of spatial filtering in image enhancement.   **[8]**

b)   Explain how vector quantization is used for image processing.   **[8]**

OR

Q4) a)   Explain Shannon-fano algorithm used for compression with example.**[8]**

b)   What do you mean by image enhancement by point processing? also explain the concept of image negative and contrast stretching.   **[8]**

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Q5) a) What are the basic components of an audio system? Describe their functions. **[8]**

b) What are MIDI messages? Explain the difference between channel message & system messages. **[8]**

OR

Q6) a) Explain PCM & DM audio compression. **[8]**

b) Explain with diagram how MIDI instruments can be interfaced with a PC? What is the general MIDI specification and what is its utility. **[8]**

SECTION-II

Q7) a) Explain different types of text with its features. Also explain various text file formats. **[6]**

b) What do you mean by digital video? Explain HDTV standard with its features. **[6]**

c) What do you mean by text compression? How Huffman coding method is used for text compression. **[6]**

OR

Q8) a) How is encoding on a DVD audio different from that on a CD - audio. Also explain DVD - RAM. **[6]**

b) Explain the features of H.261 & H.263. **[6]**

c) Explain LZW compression / Decompression technique with suitable example. **[6]**

Q9) a) Explain the role of linear interpolation & spline interpolation in animation? Also explain what is mean by ease-in and ease out effect. **[8]**

b) What do you mean by animation on the web? Explain client pull animation. **[8]**

OR

*Q10)*a) Explain the architecture of open GL in detail. **[8]**

b) Explain shadowing technique in open GL. **[8]**

*Q11)*a) When should RTP be used and when should RTSP be used? Is there an advantage in combining both protocols. **[8]**

b) Explain quality of service layered model for the multimedia communication system. **[8]**

OR

*Q12)*a) Explain various techniques for managing resources during multimedia transmission. **[8]**

b) What do you mean by media consumption. Explain with suitable examples. **[8]**

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