

Total No. of Questions : 12]

SEAT No. :

**P853**

**[4659]-231**

[Total No. of Pages : 3

**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]

**P.T.O.**

- 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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