UNIVERSITY OF PUNE

[4364]-768
B. E. (Computer Engineering)
Examination - 2013
MULTIMEDIA SYSTEMS
(2008 Pattern)

[Time : 3 Hours] [Max. Marks : 100]
Total No. of Questions : 12 [Total No. of Printed Pages :3]
Instructions :.

*(1) Answers to the **two sections** should be written in **separate answer-books**.*
(2) Black figures to the right indicate full marks.
(3) Neat diagrams must be drawn wherever necessary..
(4) Assume suitable data, if necessary.

SECTION I

Q1) a) Explain characteristics of Multimedia database management system with Applications. [9]

b) What is streaming media and why is it required? Explain in brief any one audio and video streaming technology. [9]

OR

Q2) a) What is Multimedia Authoring tools? Explain different functions of Multimedia authoring software. [9]

b) What is an API? Explain various API for developing Multimedia Applications. [9]

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

b) Explain GIF file format in detail. [8]

OR

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Q4) a) Explain JPEG encoder and decoder with suitable example. [10]

b) Explain Shannon-Fano algorithm used for compression with suitable example. [6]

Q5) a) What are MIDI messages? Explain the different between Channel messages and System messages. [8]

b) Explain VOC file format in detail. [8]

OR

Q6) a) Explain PCM audio compression technique using suitable example. [8]

b) Explain audio compression technique in MPEG. [8]

SECTION II

Q7) a) What is text Compression? Explain LZW Compression and Decompression with suitable example? [9]

b) What do you mean by digital video? Explain the feature of EDTV in detail. [9]

OR

Q8) a) Explain how Huffman coding technique is used foe text compression. [6]

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

c) What is composite video, component video and S-video signal formats. [6]

Q9) a) Explain various functions in Open GL to create animation. [8]

b) Explain various animation techniques with example. [8]

OR

Q10) a) Explain architecture of Open GL. [8]

b) Explain how atmospheric effects can be introduced in 3D animations. [8]

Q11) a) Explain quality of data transmission w.r.t. Multimedia applications [8]

b) What is mean by Multimedia over IP. [8]

OR

Q12) a) Explain media consumption in detail. [8]

b) Explain any two IP based multimedia protocols. [8]