(Pages: 2)

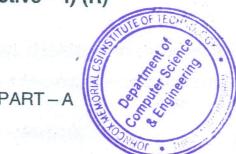
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Seventh Semester B.Tech. Degree Examination, May 2014 (2008 Scheme)

08.704 (2): MULTIMEDIA SYSTEMS AND DATA COMPRESSION

(Elective - I) (R)

Time: 3 Hours



Max. Marks: 100

Answer all questions:

(10×4=40 Marks)

- 1. What are the steps involved in the media preparation phase of a multimedia application?
- 2. How do you integrate the different types of media in multimedia systems?
- 3. Compare workstation peers and client server models of multimedia systems.
- 4. Compare Entropy and source encoding.
- 5. What are the properties of Huffman coding?
- 6. Whether JPEG image compression technique can be used for video compression. Give reason.
- 7. Assume a dictionary contains 20000 words. What will be the compression ratio if the word "digitization" is compressed using LZ coding?
- 8. What is the principle of Adaptive Differential Pulse Code Modulation (ADPCM)?
- 9. What is the use of D frames in Video Compression?
- 10. What are the different levels and profiles of MPEG 2 standard?



PART-B

Answer any one full question from each Module.

Module - I

11.	a)	What are the issues to be considered when designing a multimedia application for transferring real time multimedia data through the existing network?	8
	b)	Explain Data modeling in multimedia database management systems.	12
		OR	
12.	a)	Explain the architecture of multimedia system.	10
	b)	Explain the multimedia specific properties of a multimedia database management system.	10
	-56	Module – II	
13.	a)	Explain JPEG image compression and decompression.	15
	b)	What are the different modes of JPEG ? OR	5
14.	a)	Explain MPEG audio coder.	12
	b)	What is the disadvantage of Dolby AC-2? Write any method to eliminate the disadvantage.	8
		Module – III	
15.	a)	Explain MPEG-7 video compression standard.	12
	b)	Explain the reference model for multimedia synchronization.	8
		OR	
16.	a)	Explain MPEG-4 video compression standard.	12
	b)	Explain the mechanisms used for video and audio synchronization in multimedia.	8