Reg. No. : ....

Name : ....

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

PART – A

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**

Module – II

13. a) Explain JPEG image compression and decompression. **15**

    b) What are the different modes of JPEG ? **5**

OR

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**