

Roll No. ....

Total Pages : 3

BT-8/D-17

38012

MULTIMEDIA COMMUNICATIONS

Paper : ECE-406E

Time : Three Hours]

[Maximum Marks : 100

**Note :** Attempt *five* questions in all selecting at least *one* question from each unit. All questions carry equal marks.

UNIT-I

1. (a) What do you mean by multimedia communication ?  
Explain the various applications of multimedia communication. 10
- (b) Why is digitization required in multimedia communication ? What are the various methods of digitization ? Explain any one method of digitization. 10
2. How text, images, audio and video are represented in multimedia communications ? Give one example of each case. 20

UNIT-II

3. Discuss the following :
  - (a) Lossless and lossy Compression. 5
  - (b) Source Encoders and Destination Decoders. 5

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- (c) Entropy Encoding. 5
- (d) Source Encoding. 5

4. (a) With an example discuss the LZ compression algorithm for text compression. 10
- (b) Explain JPEG standards in detail. Why JPEG standard divides the image into blocks before DCT transform ? Why not just apply DCT transform to the whole image ? 10

UNIT-III

5. (a) With the help of block diagram explain the working of differential PCM. <http://www.kuonline.in> 10
- (b) Discuss the basic principle of video compression. Explain in detail about the H.263 video compression standard. 10
6. Explain the following:
  - (a) Code Exited LPC. 10
  - (b) Dolby Audio Encoding Method. 10

UNIT-IV

7. (a) What is recursive name resolution ? Explain with an example show the sequence of messages exchange for a recursive name resolution. 10

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- (b) Discuss domain name structure. How is it used for domain name system in Internet ? 10
8. (a) What is the principle of Internet Telephony ? How does it work ? Discuss with proper diagram. 10
- (b) What is World Wide Web (WWW) ? How is WWW useful for searching multimedia information on the Internet ? Explain. 10
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