

Roll No. ....

Total Pages : 2

BT-8/M-20

38012

MULTIMEDIA COMMUNICATIONS

Paper–ECE-406E

Option–2

Time Allowed : 3 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) Explain any two multimedia networks in detail. 10
- (b) Differentiate between MOD and NMOD. 10
2. Explain the following terms in multimedia communication : 20
  - (a) Aspect ratio.
  - (b) 4:2:2 format.
  - (c) Quantization interval.
  - (d) Audio synthesizer.

UNIT–II

3. (a) Code the given string “AAABBCCAAADDAAACDB” using Huffman coding. Derive the Huffman code tree. Determine the savings in transmission bandwidth over normal ASCII coding. 10

38012/K/491

P. T. O.

- (b) Explain various compression principles. 10
4. Differentiate between GIF and TIFF. Explain in detail the role of DCT and Quantization in JPEG encoder. Also draw its block diagram. 20

### UNIT-III

5. (a) With the help of neat diagrams explain LPC encoders and decoders. 10
- (b) Describe third order predictive DPCM signal encoder and decoder. 10
6. With the help of block diagrams of P and B frames in video compression explain motion estimation and motion compensation. 20

### UNIT-IV

7. What is Internet Telephony ? Explain the various protocols associated with it in detail. 20
8. Write short notes on the following :
- (a) Electronic mail message.
- (b) DNS. 20