

AQ – 2638

Second Year Second Semester M. C. A. Examination

MULTIMEDIA TECHNOLOGIES

4 MCA 3

P. Pages : 2

Time : Three Hours]

[Max. Marks : 80

- Note :** (1) Due credit will be given to neatness and adequate dimensions.
(2) Assume suitable data wherever necessary.
(3) Illustrate your answer wherever necessary with the help of neat sketches.
(4) Use pen of Blue/Black ink/refill only for writing the answer book.

1. (a) What is meant by dithering ? Write an algorithm for ordered dither, with $n \times n$ dither matrix. 8
- (b) What is sprite Animation ? Explain two dimensional sprite Animation with example. 7

OR

2. (a) What is multimedia ? Explain the components of multimedia. 8
 - (b) Explain JPEG file format. 7
3. (a) Explain RGB color model for CRT Displays. 7
 - (b) What is Analog video ? Explain in detail. 6

OR

4. (a) What is NTSC video ? Explain in detail. 7
 - (b) What is High definition TV ? Explain. 6
5. (a) Explain Digitization of sound in detail. 6
 - (b) Explain the structure of MIDI messages. 7

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OR

6. (a) Explain the channel mode MIDI message. 7
(b) What is Audio filtering ? Explain. 6

7. (a) Explain Huffman coding for compression. 7
(b) Explain the concept of Quantization in lossy scheme. 6

OR

8. (a) What is dictionary based coding ? Explain Arithmetic coding with example. 7
(b) Explain any two JPEG modes. 6

9. (a) Give and explain the six hierarchical layers for bitstream of an MPEG-1 video. 9
(b) Explain the concept of video compression. 4

OR

10. Explain by giving figure 4.261 Encoder and Decoder. 13
11. (a) What is a need of compressing audio ? Explain any two audio compression techniques. 7
(b) What is frequency Masking ? Explain. 6

OR

12. (a) What are the different layers of MPEG audio ? Explain MPEG Audio strategy in brief. 7
(b) What is phase insensitivity in Vocoders ? Explain. 6

