

Seventh Semester B.E. Degree Examination, July/August 2022 Multimedia Communication

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain multipoint conferencing with neat block diagram. (06 Marks)
b. Define QoS. Explain QoS parameters associated with a packet switched network. (06 Marks)
c. Explain communication modes in brief. (04 Marks)

OR

- 2 a. Explain telephone network, integrated services Digital Network, and Broad band multiservice network with neat block diagram. (08 Marks)
b. Explain packet switched network and circuit switched network with neat block diagram. (08 Marks)

Module-2

- 3 a. Explain digitization principles using neat block diagram of encoder and decoder and waveforms. (10 Marks)
b. Explain raster scan display architecture with neat block diagram. (06 Marks)

OR

- 4 a. Calculate the time to transmit the following digitized images at both 64kbps and 1.5Mbps :
i) a $640 \times 480 \times 8$ VGA – compatible image
ii) a $1024 \times 768 \times 24$ SVGA – compatible image (06 Marks)
b. Explain PCM speech with neat block diagram. (06 Marks)
c. Assuming the CD – DA standard is being used, estimate storage capacity of a CD – ROM to store a 60 minute multimedia title. (04 Marks)

Module-3

- 5 a. Encode the text: went • using arithmetic coding if following are probabilities of each character. $e = 0.3$, $n = 0.3$, $t = 0.2$, $w = 0.1$ and $\bullet = 0.1$. (10 Marks)
b. Encode the text : AAAABBCD using static Huffman coding. (06 Marks)

OR

- 6 a. Explain working of JPEG neat block diagram of encoder and decoder. (12 Marks)
b. Explain LZ technique. (04 Marks)

Module-4

- 7 a. Explain DPCM with neat block diagram of encoder and decoder. (12 Marks)
b. Explain code – excited LPC in brief. (04 Marks)

OR

- 8 a. Explain MPEG – 4 with neat diagram of encoder and decoder. (10 Marks)
b. Explain main features of a DMS. (06 Marks)

Module-5

- 9 a. Explain error resilient technique for video. (06 Marks)
b. Explain streaming video across internet with neat diagram. (10 Marks)

OR

- 10 a. Explain video delay causes in ATM network. (08 Marks)
b. Explain MPEG video error concealment with block diagram. (08 Marks)
