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10EC/TE841

Eighth Semester B.E. Degree Examination, Aug./Sept.2020

Multimedia Communication

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, selecting at least TWO questions from each part.

PART - A

- 1 a. Define the term multimedia and explain any two networks used for transferring multimedia types. (12 Marks)
b. Explain interactive applications on the internet. (08 Marks)
- 2 a. Explain the colour derivation principles and Raster Scan principles. (10 Marks)
b. Explain with a neat schematic an Audio/Sound synthesizer. (10 Marks)
- 3 a. Using static Huffman coding, derive the number of bits required to transfer string of characters AAAABBCD. Generate Huffman code tree. (08 Marks)
b. Explain with a neat block diagram the operation of JPEG encoder. (12 Marks)
- 4 a. Explain with a neat block diagram the MPEG perceptual coder. (10 Marks)
b. Explain video compression principles with examples for the various frame types. (10 Marks)

PART - B

- 5 a. Explain the principle of operation of token ring. (10 Marks)
b. Explain spanning tree algorithm. (10 Marks)
- 6 a. Explain IPV4 datagram format. (10 Marks)
b. Write a note on ARP and RARP message formats. (10 Marks)
- 7 a. Explain the general structure of ATM switch architecture along with time decision bus schematic. (10 Marks)
b. Explain the ATM protocol architecture. (10 Marks)
- 8 a. Explain the TCP segment format used in TCP protocol operation. (10 Marks)
b. Describe the use of RTP and RTCP protocols by means of diagram and show its relation to the TCP/IP protocol stack. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.