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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 AAAAABBCD. 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.