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10EC/TE841



Eighth Semester B.E. Degree Examination, June/July 2016

Multimedia Communication

Max. Marks: 100

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

PART – A

- 1 a. Explain any two multimedia networks that provides single type of service? (08 Marks)
b. Which are the modes of multipoint conferencing. And explain with diagram. (06 Marks)
c. Define Network Quality of Service parameters. Explain packet switched network parameters. (06 Marks)
- 2 a. Derive the bit rate and memory requirements to store each frame that result from the digitization of both a 525 line system and a 625 line system assuming a 4:2:0 format. Also find the memory required to store a 1.5 hour movie/video. (08 Marks)
b. Explain any two types of texts in detail. (06 Marks)
c. Differentiate Non-interlaced and interlaced scanning. (06 Marks)
- 3 a. What are pass mode, vertical mode and horizontal modes in run length possibilities and explain the same with flow chart. (07 Marks)
b. Describe forward DCT, quantization block of JPEG standard. (06 Marks)
c. Construct Huffinan table and code tree for the given characters. Relative frequency of occurrence of each character is as follows :
 Λ and B = 0.25, and C and D = 0.14, E, F, G and H = 0.055. Also derive the set of code-words for the given characters (07 Marks)
- 4 a. Explain perceptual features of the ear and vocal tract excitation parameters. With a neat diagram, explain linear predictive coding (LPC) signal encode and decoder. (10 Marks)
b. Explain H.261 video compression standard with the help of macro block format frame format and GOB structure. (10 Marks)

PART – B

- 5 a. Explain in detail with diagrams LAN protocols and protocol frame work. (10 Marks)
b. What is a transparent bridge? With a neat diagram. Explain transparent architecture and its application example. (10 Marks)
- 6 a. Explain the operation of internet with a neat diagram of protocol components. Assuming the IP address formats, derive the range of host addresses for classes A, B and C. express the answer in dotted decimal notation and also straight decimal. (10 Marks)
b. Explain in detail datagram format of IPV6. (10 Marks)
- 7 a. With the help of diagram, explain broadband ATM cell formats. (10 Marks)
b. Explain ATM protocol architecture. (10 Marks)
- 8 a. Explain RTP and RTCP protocols. (10 Marks)
b. Explain TCP/IP protocol suite with a diagram. (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.