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10EC/TE841

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

Time: 3 hrs. 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 Huffman table and code tree for the given characters. Relative frequency of occurrence of each character is as follows :
A 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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