

1079
B. Engg. (Information Technology)
5th Semester
ITE-573/535: Multimedia Systems

Time allowed: 3 Hours

Max. Marks: 50

Attempt five questions in all, including Q. No. 1 which is compulsory and selecting atleast two questions from each Unit.

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I. Attempt the following: -

- (a) What do you understand by Hypermedia and Hypertext?
- (b) Explain the concept of compact disc and its standards.
- (c) What is the essential difference between graphics and images?
- (d) Explain the concept of Run Length Encoding.
- (e) What is meant by AC Coefficients and DC Coefficients in DCT Computations? (5×2)

UNIT-I

- II. (a) What are the various design issues in multimedia applications?
- (b) Explain MIDI and its types in details. What are the various components of a MIDI System? (5+5)

III. Write short notes on the following: -

- (a) SGML
- (b) ODA
- (c) MHEG
- (d) Multimedia standards
- (e) RAID (10)

- IV. (a) Explain the basics of digital audio. What are the various audio file formats?
- (b) What is quantization? Explain Nyquist's sampling theorem and its importance. (5+5)

UNIT-II

- V. (a) What are the main components of a visual display system? Briefly state their functions.

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(2)

(b) How does the CMYK color model represent color information? Why is it called a subtractive model? (5+5)

VI. (a) Distinguish between lossy and lossless, symmetrical and asymmetrical, intraframe and interframe compression.

(b) Explain the difference between LZ and LZW coding scheme. (6+4)

VII. (a) A document contains letters A through F with Frequencies as indicated: -
A: 0.25, B: 0.1, C: 0.2, D: 0.15, E: 0.26, F: 0.04

Use Huffman coding to derive a codeword set.

(b) Differentiate between the CIF lab and HSB color models. What are the various TV standards? (6+4)

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