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BCA/M-15

MULTIMEDIA TECHNOLOGY

Paper-BCA-365

Time allowed: 3 hours]   **[Maximum marks: 80**

Note: Attempt five questions in all. Q. No. 1 is compulsory. In addition to compulsory question, student will have to attempt four more questions selecting one question from each unit. All questions carry equal marks.

Compulsory Question

1. (a) What is the difference between LCD and TFT monitor?
   (b) Write short note on Object-oriented authoring tool.
   (c) Write short note on RGB colour Model.
   (d) Write short note on Composite Video.
   (e) Explain Nyquist Theorem.
   (f) Write short note on Quantization.
   (g) Write short note on Run Length coding.
   (h) Explain various JPGEG standards.

UNIT-I

2. (a) What is Multimedia? Explain various applications of multimedia.
   (b) What are the differences between Multimedia and Hypermedia?
3. (a) What are the features of Authoring tools? Explain Icon based authoring tool.
   (b) Explain various categories of Multimedia software tools.

UNIT-II

4. Explain the following:
   (a) 1-bit images.

(b) 8-bit grey-level image.

(c) 24-bit colour image.

5. (a) What are the reasons for many file formats?Explain

(b) Write short notes on the following:

(i) NTSC

(ii) PAL

(iii) HDTV

UNIT-III

6. (a) Explain Pulse Code Modulation (PCM). What are the various steps to digitize an analog signal?

(b) Explain differential coding of audio by using any example.

7. (a) Write short note on Loseless predictive coding.

(b) Explain in detail Delta Modulation (DM) and Adaptive Differential Pulse Code Modulation (ADPCM).

8. What is variable length coding? Explain Shannon-Fano coding and Huffman coding with examples.

9. Explain the following:

(a) H.261video compression algorithm .

(b) H.263 video compression standard.

(c) MPEG standards.