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## B. E. 4th Semester (IT) Examination, May–2010

## MULTIMEDIA TECHNOLOGY

### Paper–IT–204–E

Time allowed : 3 hours ]          [Maximum marks : 100

**Note :** Attempt any *five* questions.

1. What is multimedia ? Discuss a framework for multimedia systems. Also write its applications in various domains.                                      20

2. (a) Discuss the structure of the encoder for MPEG layer 1 and 2.                                      15

   (b) Discuss Sampling Theorem.                      5

3. Discuss JPEG standard for image compression with its objectives, architecture and performance.      20

4. (a) What is Virtual Reality ? Explain its areas of application.                                           10

   (b) What are intelligent VR software systems ? Explain VR operating system.                   10

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5. (a) How analog signal is converted into digital signal ? Discuss various methods of encoding the analog signals. 10

   (b) How do we evaluate a compression system ? Discuss time based media representation. 10

6. (a) Explain animation with its usage and techniques. 10

   (b) Discuss one compressed and one uncomparessed image file format. 10

7. (a) What are colour palettes ? Discuss in reference to 3D drawing. 10

   (b) What is anti-aliasing ? When do we use it ? 10

8. Write short notes on any *three* : 20

   (i) Multimedia servers and data bases.

   (ii) Stereophonic and quadraphonic signals.

   (iii) Morphing

   (iv) Desktop virtual reality.

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