

22/12

Total number of printed pages – 4

B. Tech  
BCSE 3302

Fifth Semester Examination – 2007

MULTIMEDIA TECHNOLOGY

Full Marks – 70

Time – 3 Hours

Answer Question No. 1 which is compulsory  
and any **five** from the rest.

The figures in the right-hand margin  
indicate marks.

1. Answer the following questions : 2×10
- (a) What is meant by frames and frame rate in connection with motion video ?
  - (b) What are the basic components of an audio system ?
  - (c) What are the main aspects of MIDI specification?

P.T.O.

- (d) What is distributed multimedia system ?
- (e) What is 'persistence of vision' ?
- (f) What is multimedia system ?
- (g) Define and difference between motion picture and animation.
- (h) What is video-on-demand ?
- (i) When we say that audio and video are continuous forms of media, what do we mean ?
- (j) Compare and contrast constant and variable bit rate compression for audio and video data.
2. (a) Explain the raster scanning process. How does it help in displaying images on a screen ? 5
- (b) How does sound card process WAV file and MIDI file ? 5
3. (a) Discuss various layers of the MPEG-1 audio standard. 5

- (b) Explain the advantages of YC format over RGB format in video signal transmission. 5
4. (a) What is meant by right handed Cartesian coordinate system and what is its utility ? 5
- (b) What is digital video interaction (DVI) ? What are the features and power of DVI technology ? 5
5. (a) What are the basic components of a typical Multimedia Information system ? Suggest the suitable backup facility for such information system. 5
- (b) In texture mapping, distinguish between planner, cylindrical and spherical projection ? 5
6. (a) What are the different sounds formats and what are the different sounds files formats ? 5

- (b) How can audio be used in multimedia presentation ? What are the considerations for the same ? 5
7. (a) Explain in brief the various parts of the MPEG-2 standard. 5
- (b) How does the sound card process WAV files and MIDI files ? 5
8. (a) Distinguish between local and global coordinates. 2.5
- (b) What is meant by helical scan and what are its advantage ? 2.5
- (c) What do you mean by media steam protocol ? 2.5
- (d) What is the basic idea behind MPEG4 (also called "object video") ? 2.5