[3763] – 252

T.E. (IT) (Semester – I) Examination, 2010
MULTIMEDIA SYSTEMS
(2003 Course)

Time : 3 Hours Max. Marks : 100

Instructions : *1) Answers to the **two** Sections should be written in **separate** answer books.*
*2) From Section **I** answer Q. 1 or Q. 2, Q. 3 or Q. 4, Q. 5 or Q.6 and answer Q. 7 or Q. 8, Q. 9 or Q. 10, Q. 11 or Q. 12 from Section – **II**.*
*3) Neat Diagrams must be drawn **wherever** necessary.*
*4) Figures to the **right** indicate **full** marks.*

SECTION – I

1. a) What is multimedia ? Explain with suitable examples the various building blocks of Multimedia. **10**
   b) Explain the DDA Line drawing algorithm. **8**

   OR

2. a) What is shading ? Explain the Phong shading. **8**
   b) What is aliasing ? Explain any two methods of anti aliasing. **10**

3. a) What is an optical storage device ? Compare CD, DVD. **8**
   b) Explain Sutherland Hodgman polygon clipping algorithm. **8**

   OR

4. a) Explain the seed fill algorithm for filling a polygon. **6**
   b) Write the steps which are to be followed to rotate an object about an arbitrary axis in three dimension passing through points $P_1(x_1, y_1, z_1)$ and $P_2(x_2, y_2, z_2)$. **10**

5. Write short notes on :
   a) Magnetic Storage devices **4**
   b) Flood fill algorithm **6**
   c) Cohen Sutherland algorithm. **6**

   OR

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6. Write short notes on :

   a) Convex and Concave polygon **4**

   b) Homogeneous co ordinate system **6**

   c) Inside outside tests. **6**

SECTION – II

7. a) Explain the characteristics of sound. **8**

   b) Explain the MIDI file format. **8**

OR

8. a) What is the need of compression ? Explain the steps of JPEG compression technique. **8**

   b) Compare NTSC and PAL video standards. **8**

9. a) What are the types of animation ? Explain any three principles of animation. **8**

   b) Compare RGB and CMY color models in detail. **8**

OR

10. a) Write a short note on BMP file format. **8**

    b) Explain important frames with respect to MPEG compression. **8**

11. a) What is audio compression ? How it is achieved using ADPCM ? **8**

    b) Explain MP3 encoder in detail. **8**

OR

12. Write short notes on : **18**

    a) Wave file format

    b) Segmentation in Animation

    c) Run-Length Encoding.
