Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐

V 4128

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2008.

Seventh Semester

Information Technology

CS 1354 — GRAPHICS AND MULTIMEDIA

(Regulation 2004)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1.   Define persistence.

2.   State the difference between window and viewport.

3.   What is 'Self Affine' fractals?

4.   State the use of glyphs.

5.   Define orchestration.

6.   List two challenges in multimedia databases.

7.   What are high definition systems?

8.   What is speech synthesis?

9.   Compare distributed systems with multimedia systems.

10. State the need for integrated document management.

PART B — (5 × 16 = 80 marks)

11. (a) Use the mid point method to derive decision parameters for generating points along a straight line path with slope in the range 0 < m < 1. Show that the mid point decision parameters are the same as those in the Bresenham line algorithm.

Or

(b) Write a routine to split a concave polygon using the vector method.

12. (a) Given the plane parameters A, B, C, D for all surfaces of an object, device an algorithm to determine whether any specified points is inside or outside the object.

Or

(b) Device a procedure for rotating an object that is represented in an octree structure.

13. (a) Discuss the various aspects of 'querying the content of video libraries' with reference to video databases.

Or

(b) Discuss in detail about the various multimedia data interface standards.

14. (a) Discuss in detail about Digital Video Interactive (DVI) with suitable diagrams.

Or

(b) Explain in detail about various animation and special effects in 3 dimensions.

15. (a) Write short notes on :   (4 marks each)

    (i)   Voice over IP.

    (ii) Video on demand.

    (iii) Interactive television.

    (iv) Movie on demand.

Or

(b) Discuss in detail about :

    (i)   Hypermedia message creation.   (10)

    (ii) Mobile messaging.   (6)

2   **V 4128**

Time

1.

2.

3.

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10.