

UNIT V – FRACTALS

PART – A

1. What are peano curves?
2. What is purpose of rendering texture?
3. What is the use of fractals in graphics applications?
4. Define Fractals. Give examples.
5. List out some properties of fractal.
6. What are three types of self-similarity found in fractals?
7. What is Koch Curve?
8. Give the general procedure to construct Koch curve.
9. Draw the diagram of second generation of Koch snowflakes.
10. What is Julia sets?
11. Differentiate Mandelbrot and Julia sets.
12. What is String Production Rules?
13. What is Iterated Function System (IFS)?
14. Give the rules for Dragon Curves?
15. Give the parameter to represent each curves based on String production.
16. What is space-filling curve?
17. What is Ray Tracing?
18. What is the state of a turtle?
19. What is the functionality of hit() methods?
20. What is known as Surface texture?
21. What is total internal reflection?
22. What is Constructive solid geometry?
23. How objects are modeled using constructive solid geometry technique?
24. What is CSG Objects?

PART-B

1.
 - I. Explain about creation of images by iterated functions.
 - II. Write about Mandelbrot and Julia sets
2. Explain the following concepts
 - I. Fractals and self similarity
 - II. Boolean operation on objects
3. Brief explain different typed of fractals with neat diagram and also explain how to construct fractals and the use of fractals in computer graphics.
4. Write notes on the following
 - a. Peano curves
 - b. Julia sets
 - c. Mandelbrot sets
 - d. Random fractals.
5. Discuss the following
 - a. Reflection and transparency
 - b. Boolean operations on objects.
6. Write about random fractals in detail.
7. Define Koch curve? How do you construct the Koch curve?
8. Explain about Mandelbrot sets?
9. Explain about Julia sets?
10. Explain about Intersecting rays with other primitives?
11. Explain about Boolean operation on objects?