

DECEMBER 2014

P/ID 16171/PIE12

Time : Three hours

Maximum : 100 marks

PART A — ($6 \times 5 = 30$ marks)

Answer any SIX questions.

1. Give the comparison of various colour hard copy devices. Discuss.
2. Discuss merits and demerits of DDA line drawing algorithm.
3. Show that transformation matrix for a reflection about a line $y = x$ is equivalent to reflection to x-axis followed by counter – clock wise rotation of 90° .
4. What do you mean by composite transformation? How it is useful?
5. Write short note on viewing transformation.
6. Derive the transformation matrix for general parallel projection.
7. Why do you use cubic polynomials? Discuss.
8. What is specular reflection? Give the illumination model that incorporate this reflection.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9. Explain in detail about circle generating algorithms, give one example.
10. Distinguish between area fill attributes with character attributes.
11. Describe the basic concepts of polygon clipping, give any one algorithm.
12. Mention three dimensional display methods. Explain any two methods in detail.
13. Derive the homogenous equation for 3-D transformation.
14. Discuss about hidden line back face removals.
15. Explain in detail about B – spline surface.
16. Describe the basic concepts of 3 – dimensional concepts.
17. List out the attributes of output primitive. Explain each one.