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Time: $1\frac{1}{2}$ hours Maximum: 75 marks

SECTION A — $(5 \times 3 = 15 \text{ marks})$

Answer any FIVE questions.

- 1. What is aspect ratio?
- 2. Write the operation of video controller.
- 3. Write the function of data glove.
- 4. What is round join?
- 5. Define soft fill.
- 6. What is module?
- 7. What do you mean by choice device?
- 8. What is dragging?
- 9. What is fill Area?
- 10. Write the basic geometric operation of 3D.
- 11. Define morphing.
- 12. What is object space?

SECTION B – $(3 \times 10 = 30 \text{ marks})$

Answer any THREE questions.

- 13. Write a brief note on the graphics software standards.
- 14. Explain the working principles of digitizers.
- 15. Write the algorithm for line drawing using DDA method.
- 16. Explain any one concept of modeling in detail.
- 17. Illustrate with an example of basic positioning method of picture construction techniques.
- 18. Write short notes on 3D other transformation with matrix representations.
- 19. Explain the Backface detection method to identify visible surfaces.

SECTION C –
$$(2 \times 15 = 30 \text{ marks})$$

Answer any TWO questions.

- 20. With a neat diagram, explain the working principles of plasma panel.
- 21. Explain in detail, mid-point circle drawing algorithm with program segment.

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- 22. Write a detailed note on the Cohen-Sutherland line clipping algorithm.
- 23. Describe the various 3D object representations in detail.
- 24. Discuss the different design steps of animations in detail.