



- (b) (i) Define clipping. What is clip window? (4)
- (ii) Explain Cohen and Sutherland Line Clipping algorithm. (8)
- (iii) Explain the organization of video controller. (4)
12. (a) Determine the blending function for Uniform periodic Bspline curves for  $n = 4, d = 4$ . (16)

Or

- (b) (i) Obtain a transformation matrix for rotating an object about a specified pivot point. (6)
- (ii) Perform a 45 degree rotation of triangle  $A(0,0), B(1,1), C(5,2)$  about the origin about  $P(-2, -2)$ . (6)
- (iii) Show that transformation matrix for a reflection about the line  $y = x$  is equivalent to a reflection relative to the  $x$  axis followed by a counter clockwise rotation of 90. (4)
13. (a) (i) Explain the rendering technique for drawing a line. (8)
- (ii) Explain Gouraud shading technique and write the deficiencies in that method and how it is rectified using Phong shading technique. (8)

Or

- (b) (i) Explain 3D basic transformation with an example. (10)
- (ii) Explain the perspective projection for projecting 3D objects on a 2D surface. (6)
14. (a) (i) Compare and contrast the use of MIDI and digitized audio in a multimedia production. (4)
- (ii) Discuss different types of video standards. (12)

Or

- (b) List different type of authoring tool and explain it briefly with its merits and demerits. (16)

15. (a) (i) List the Multimedia applications. Explain them briefly. (12)

(ii) Write short notes on synchronization issues in multimedia. (4)

Or

(b) Briefly explain the implementation of video conferencing. (16)

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