csIT gra

Hosp

Write an OPENGL app to draw primitives such as a line and unfilled rectangle, triangle, hexagon

Write an OPENGL app draws following polygons: red square, blure triangle and green pentagon at the same location and style.



- 3. Write a OPENGL app to animate bouncing square.
- 4. Write a OPENGL app to draw red square at the plate of mouse click.
- 5. Write a OPENGL app to display following vehicle.



- 6. Write an OPENGL app to generate 50 random points and plot them.
- 7. Write an OPENGL app to draw red filled square at the point of click.
- 8. Implement direct method to draw a line given two ends points.
- 9/ Implement DDA to draw line given two end points of line.
- 10. Compare time taken to draw given line using direct method, DDA and Bresenham.
- 11. Implement mid point algorithm to draw circle given its radius and center.
- 12. Implement mid point algorithm to draw ellipse given its primary, secondary axis and center.
- 13. Write an OPENGL app to rotate a rectangle about origin with one point being (100, 100), width 200 and height 50 by 30 degree anticlockwise by using opengl function.
- 14. Do the same thing in Question no. 13 without using opengl rotate function.
- 15. Use the rectangle in Question no. 13 and scale it by (2,2) using opengl function.
- 16. Do the same thing in Question no. 15 without using opengl scaling function.

- 17. Use the rectangle in Question no. 13 to rotate it by 30 degree anticlockwise about a fixed point (150,125) and see how the result is different from Question no. 13 by using opengit transformation methods.
- 18. Do the same thing 17 without using opengl transformation methods and see if the results are same.
- 19. Write an OPENGL app to illustrate orthogonal projection.
- 20. Write an OPENGL app to show clipping using orthogonal projection.
- 21. Write an OPENGL app to show rectangle in two different viewports.
- 22. Implement sutherland cohen clipping algorithm to clip the given line.