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ASSIGNMENT

COMPUTER GRAPHICS – (CSX-308)

Date of Assignment: 05-04-2020 Last Date of Submission: 28-04-2020

1. Apply Liang Barsky line clipping algorithm algorithm to the line with coordinates (30, 60) and (60, 25) against the window. (Xmin,Ymin)=(10,10)and(Xmax,Ymax)=(50,50)

2. Find the normalization transformation window to viewport with window lower left corner at(1,1) and upper right corner at (3,5) onto a viewpoint with lower left corner at (0,0) and upper right corner at [1/2][1/2].

3. Write steps of Liang–Barsky line clipping algorithm.
4. What do you mean by polygon net or mesh? Explain various ways of representing it along with its merits and demerits.
5. What are the limitations of Bezier curves?
6. Explain B-Spline curves along with its properties.
7. Write short notes on the following –
    a) Perspective foreshortening
    b) Principle vanishing points
    c) Front, top and side views of an object
    d) Axonometric projections
    e) Orthographic projections
    f) Oblique projections
    g) Dimetric projections
    h) Cabinet projections
    i) Cavalier projections
8. Write following hidden surface detection algorithms –
    a) Z buffer algorithm
    b) Painter's or depth sort algorithm
    c) Scan line algorithm
    d) Area subdivision algorithm
9. Explain various steps for designing animation sequences.