Computer Graphics Suggestion Chapter-wise

Chapter: Image Representation

1. RGB Model
2. CMY Model
3. Display Monitor
4. Halftoning and Halftone approximation
5. Lookup Table

Chapter: Scan Conversion

1. What is scan conversion? Scan converting a line with diagram
2. DDA algorithm.
3. Bresenham's Line algorithm
4. Scan converting a circle
5. Midpoint Circle Algorithm
6. Side effects of scan conversion
7. Region filling, Boundary filling, flood filling
8. 4-connected vs 8-connected
9. Solve problem of book: 3.1, 3.3, 3.6, 3.7

Chapter: Two-Dimensional Transformation

1. Geometric and Coordinate transformation briefly with 4 types.
2. Find the transformed point, P', caused by rotating P= (5, 1) about the origin through an angle of 90°.
3. Perform 60° rotation of a point P(2, 5) about a pivot point (1,2). Find P'?
4. Solve problem of book: 4.2, 4.5, 4.8

Chapter: Two-Dimensional Viewing and Clipping

1. Window, View port
2. Window to viewport coordinate transformation
3. Cohen-Sutherland Algorithm
4. Cohen-Sutherland Line clipping algorithm
5. Liang Barsky Algorithm
6. Sutherland Hodgeman polygon clipping

Chapter: Mathematics of Projection

1. Projection
2. Perspective and Parallel projection
3. Perspective projection types
4. Parallel projection types

Note: Algorithms you can skip the previous year but it is very much important to learn the algorithms so that you can answer each of them.

Math Note: Math's are given for two chapters. Please do all of those so that you can get solid numbers by doing maths.