## **IMP Topics - CGMS**

## **Circulated by Brainheaters**

- 1. DDA algorithm and Brenham algorithm for line drawing
- 2. Midpoint algorithm for circle
- 3. Aliasing and Antialiasing techniques
- 4. Scan line Polygon Fill algorithm, inside outside tests,
- 5. Boundary Fill and Flood fill algorithm.
- 6. Basic 2D transformations: Translation, Scaling, Rotation, Reflection.
- 7. Matrix representation and Homogeneous Coordinates.
- 8. Composite transformation.
- 9. Viewing transformation pipeline and Window to Viewport coordinate transformation.
- 10. Point clipping and Line Clipping.
- 11. Cohen-Sutherland and Liang-Barsky
- 12. Sutherland-Hodgeman
- 13. 3D Transformations: Translation, Rotation, Scaling.
- 14. Rotation about an arbitrary axis.
- 15. Bezier Curve
- 16. B-Spline Curve.
- 17. Fractal
- 18. Koch Curve.