

**LIST OF EXPERIMENTS:****Implement the exercises from 1 to 4 using C/OpenGL/Java**

1. Implementation of Algorithms for drawing 2D Primitives -  
Line (DDA, Bresenham) – all slopes  
Circle (Midpoint)
2. 2D Geometric transformations -  
Translation  
Rotation  
Scaling  
Reflection  
Shear  
Window-Viewport
3. Composite 2D Transformations
4. Liang - Barsky Line Clipping

**Implement the exercises from 5 to 7 using OpenGL**

5. 3D Transformations - Translation, Rotation, Scaling
6. 3D Projections – Parallel, Perspective
7. Creating 3D Scenes
  
8. Compression Algorithms - To implement text and image compression algorithms. (Implement this using any programming language)
  
9. Image Editing and Manipulation - Basic Operations on image using any image editing software, Creating gif animated images, Image optimization
10. 2D Animation – To create Interactive animation using any authoring tool

**TOTAL: 45****LABORATORY REQUIREMENTS FOR BATCH OF 30 STUDENTS:**

## Software:

1. C/C++/Java (languages)
2. OpenGL 3.7 (precompiled GLUT libraries 3.7 – Open source)
3. Photoshop 7.0 (sufficient licenses available) / Any opensource software like 'GIMP 2.6'
4. Flash 8.0 (Sufficient licenses available)