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**ST JOSEPH’S COLLEGE (AUTONOMOUS), BANGLORE-27**

**BSc – VI SEMESTER**

**SEMESTER EXAMINATION APRIL-2018**

**CS 6212 – Computer Graphics**

**Time – 2 ½ hrs MaxMarks-70**

**I Answer the following question 2\*10=20**

1. What is computer graphics? List any two applications of computer graphics.
2. How to convert square to cube (3d transformation)?
3. Define line cap and round cap.
4. What is shearing?
5. Write a matric notation for two dimensional translations.
6. What is ellipse?
7. Write down the inequalities for point clipping.
8. List the difference between joystick and keyboard.
9. What is projection? List the different type of projection.
10. What is octree and quadtree?

**II Answer any FIVE question 6\*5=30**

1. Explain the working of interactive graphic display with neat diagram.
2. Explain the working of boundary fill algorithm.
3. Write an algorithm to demonstrate the working of DDA line.
4. Perform 600 rotation of a triangle A(100,100), B(300,100) C(200,300).
5. Write a short note on line attributes
6. How window to viewport transformation is carried out?
7. Explain 3D object representation of polygon using polygon table.

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**III Answer any TWO question 2\*10=20**

1. Write an algorithm to explain the working of Bresenham’s line drawing algorithm. Illustrate with an example.
2. Explain basic two dimensional transformations.
3. A) Explain the steps involved in cohen-sutherland line clipping algorithm. (6)

B) Short note on keyboard and MOUSE. (4)