ST. JOSEPH'S EVENING COLLEGE (AUTONOMOUS)
IV SEMESTER BCA EXAMINATIONS APRIL 2018

COMPUTER GRAPHICS

Duration: 2.5 Hours   **Max. Marks: 70**

SECTION - A

I)   **Answer any SIX of the following questions.**   (6x3=18)
   1.   Explain the use of computer graphics in training education.
   2.   Explain different fill styles.
   3.   What do you mean by shear transformation?
   4.   What are the raster functions used for transformations?
   5.   What is the difference between window and view port?
   6.   Explain the concept of blanking window to view port transformations.
   7.   Explain polygon surfaces.
   8.   Give the merits and demerits of Depth-Buffer algorithm.

SECTION - B

II)   **Answer any FOUR of the following questions.**   (4x8=32)
   9.   Give the working of a CRT with a neat sketch.
   10. Differentiate between random and raster scan systems.
   11. Write and explain Bresenhams circle algorithm.
   12. Explain the basic transformation, translation, scaling and rotation
   13. Explain Cohen and Sutherland algorithm for line clipping.
   14. Explain different Octree encoding procedures. Illustrate with diagrams.

SECTION - C

III)   **Answer any TWO of the following questions.**   (2x10=20)
   15. a.   Give the applications of raster scan graphics.   (5)
       b.   Explain the working of shadow mask CRT.   (5)

   16. a.   What are the criteria for generating a straight line?   (5)
       b.   Write the steps involved in DDA line algorithm.   (5)

   17. a.   Explain depth buffer algorithm.   (7)
       b.   Give the characteristics of hidden surface removal algorithm. (3)