

**Subject : I.T. Elective-III b) Computer Graphics and Multimedia**

Day : Friday  
Date : 09/12/2016



Time : 10.00 A.M. TO 1.00 P.M.  
Max Marks : 80 Total Pages : 1

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**N.B:**

- 1) Attempt **ANY FIVE** questions from Section-I and **ANY TWO** questions from Section - II.
  - 2) Answer to both the sections should be written in the **SAME** answer book.
  - 3) Figures to the right indicate **FULL** marks.
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**SECTION-I**

- Q.1** Explain Cohen Sutherland algorithm for clipping. (10)
- Q.2** a) Distinguish between raster scan and vector scan. (05)  
b) Write short notes on Graphical Input Devices. (05)
- Q.3** Describe Bresenham's line drawing algorithm. (10)
- Q.4** a) What is pixel? What is importance of using frame buffer? Is it dynamic storage structure? (05)  
b) Write a note on character generation methods. (05)
- Q.5** Consider a square A ( 1, 0), B ( 0, 0), C ( 0, 1), D ( 1, 1). Rotate the square ABCD by 45° anti clock wise about point A ( 1, 0) (10)
- Q.6** Explain HSV and HLS color models. (10)
- Q.7** Write short notes on **Any TWO** of the following: (10)  
a) Fractals  
b) Curves Interpolation  
c) Computer Graphics Applications

**SECTION-II**

- Q.8** Explain DDA algorithm for line generation. Discuss its advantages and disadvantages. (15)
- Q.9** a) Write pseudo code for flood fill algorithm. (07)  
b) Explain pseudo code for boundary fill algorithm. (08)
- Q.10** Write short note on **ANY THREE** of the following: (15)  
a) Translation  
b) Scaling  
c) Circle Generation  
d) Window Transformation  
e) Rotation

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