

Roll No. ....

Subject Code—6762-X

**M. Sc. (CS)/M.C.A. EXAMINATION**

(Third Semester)

(MCA 3 Years)

(For Re-appear Batch 2009)

MS-13

**COMPUTER GRAPHICS**

*Time : 3 Hours*

*Maximum Marks : 70*

**Note :** Attempt any *Five* questions. All questions carry equal marks.

1. What do you mean by Computer Graphics ?  
How does computer graphics system work ?  
What are the advantages of interactive compute graphics ?
2. List the operating characteristics for the following display technology :  
Raster Refreshes System, Plasma Panel, LED and LCD.

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3. Explain Bresenham's algorithm for line drawing. What Raster location will be chosen when scan converting line from pixel (1, 1) to pixel (8, 5) using above algorithm.
4. Write 2-D Cohen-Sutherland algorithm for line segment clipping and hence find points of intersection in case of clipping candidate. Compare efficiency of clipping obtained using Mid-Point subdivision and Sutherland Cohen method.
5. What is Hidden surface problem ? How is the depth of a polygon determined by the Painter's algorithm ?
6. Explain hardware, software and application area of multimedia in detail.
7. Explain the different interactive graphical techniques.

8. Write short notes on the following :

- (a) Window to viewport transformation
- (b) GKS primitive
- (c) GKS viewport command
- (d) Touch panels.