

Roll No. ....

Exam Code : J-19

Subject Code—0107

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

(Batch 2009 Onwards)

(Third Semester)

COMPUTER GRAPHICS

MS-13

(MCA-3 Years)

*Time : 3 Hours*

*Maximum Marks : 70*

**Section A**

**Note :** Attempt any *Seven* questions. **7×5=35**

1. What is computer graphics ? Explain different applications of computer graphics.
2. Describe the advantages of interactive graphics.
3. Explain Raster Scan Monitor.

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**P.T.O.**

4. Implement DDA line algorithm to draw line (0, 0) to (7, 6).
5. Explain 2D viewing and clipping.
6. Illustrate the working of Joysticks.
7. What do you understand by Gravity Field ?
8. Describe different computer graphics software.
9. What do you mean by Projection ?
10. In list the application of Multimedia.

### Section B

**Note :** Attempt all the questions.

11. What is Cathode Ray Tube (CRT), LED and LCD monitor ? Explain the working principle of all with the help of suitable diagram. **12**

*Or*

What do you understand by scan conversion ?  
Explain Bresenham's Circle drawing algorithms.

12. Describe various line clipping algorithms with suitable example. **12**

*Or*

Explain Rubber Band method of interactive graphics techniques.

13. What do you understand by 3-D technology ? Explain in detail. **11**

*Or*

Explain Z-Buffer algorithms with suitable example.