

Roll No. ....

Exam Code : J-19

Subject Code—0389

**M.C.A. (Fourth Year) EXAMINATION**

(5 Years Integrated Course)

(Main & Re-appear for Batch 2009 Onwards)

COMPUTER GRAPHICS & MULTIMEDIA

MCA-401

*Time : 3 Hours*

*Maximum Marks : 70*

**Section A**

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

1. Discuss the working of various Graphic Input Devices.
2. How does calligraphic display and raster scan display work ?
3. Discuss fundamental aspects of circle plotting using midpoint algorithm.

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4. Discuss fundamentals of circle plotting using Bresenham's algorithm.
5. What is windowing and clipping ?
6. What are Bezier curves ? Explain.
7. Explain the concept of rotation.
8. State difference between isometric and perspective projections.
9. Write short note on hardware and software for multimedia.
10. Discuss the various components of multimedia.

### **Section B**

**Note :** Attempt all the questions.

11. Write Bresenham's algorithm for line and circle plotting and explain in detail. **12**

*Or*

Discuss the working of Graphic input and output in detail.

12. What is Windowing and Clipping ? Discuss Sutherland-Cohen approach for line clipping. **12**

*Or*

Discuss the various types of Bezier curves and mechanism to draw it.

13. Discuss the various types of Graphic projections in detail. **11**

*Or*

Discuss the various multimedia authoring tools along with their working.