

<b>MCA-421</b>	<b>MCA-11</b>
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**M.C.A. DEGREE EXAMINATION –  
JUNE 2009.**

**Third Semester/Second Year**

**COMPUTER GRAPHICS**

**Time : 3 hours**

**Maximum marks : 75**

**SECTION A — (5 × 5 = 25 marks)**

**Answer any FIVE questions.**

1. Explain colour CRT monitor's applications briefly.
2. Explain hard copy devices.
3. Express the translation  $x' = x + t_x$  and  $y' = y + t_y$  as a single matrix equation.
4. What is meant by shear? Explain.
5. Explain a refresh display file.
6. Explain any two input devices.
7. What is meant by pixel phasing? Explain briefly.

## SECTION B — (5 × 10 = 50 marks)

Answer any FIVE questions.

8. Explain the working principle of shadow mask CRT.
  9. Explain Line-drawing algorithm in detail with its underlying concepts.
  10. Explain view transformation and windowing transformation in detail.
  11. Explain clipping operations with their primitive types.
  12. What is meant by reflection? How is it different from basic transformations?
  13. What is meant by perspective projection? Explain briefly.
  14. Explain the depth-sorting method in detail.
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