2015

MCA

4th SEMESTER EXAMINATION

COMPUTER GRAPHICS LAB

PAPER—MCA-406

(Practical)

Full Marks : 50

Time : 3 Hours

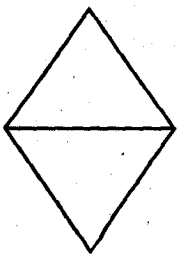
The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

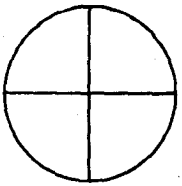
Illustrate the answers wherever necessary.

Answer any *one* question : 1×35

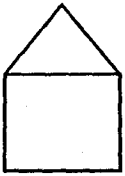
1. Write a program to draw the following figure using Bresenham's line drawing algorithm:



2. Write a program to draw the below figure using any standard algorithm (Without using inbuilt functions) :



3. Write a program to draw the following figure using DDA line drawing algorithm:



4. Write a program to rotate a triangle about origin.

5. Write a program to show all standards of shear transformation.

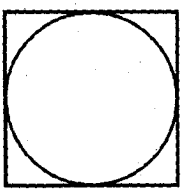
6. Write a program to show all 2D reflection. The program should be menu driven.

7. Write a program to do the following transformation in sequence:

(i) 90° rotation of a line about origin.

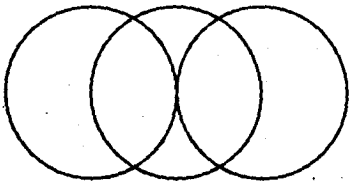
(ii) reflection about line y=0.

8. Write a program to draw the below figure without using any inbuilt function :



9. Write a program to draw an ellipse using mid-point algorithm.

10. Write a program to draw the below figure using Bresenham's circle drawing algorithm :



11. Write a program to display first letter of your name using any line drawing algorithm.

12. Write a program to do the following in sequence :

(i) Scaling a line.

(ii) Reflect the line along origin.

13. Write a program to implement polygon filling.

14. Write a menu driven program to translate, scale and rotate a line about the origin.

15. Write a program to draw a hexagon using Bresenham's line drawing algorithm.

PNB : 5 marks

Viva Voce : 10 marks
