

**5/H-73 (vi)(a) (Syllabus-2015)**

**2 0 1 7**

( October )

**COMPUTER SCIENCE**

( Honours )

**( Computer Graphics )**

( CS-502 AT )

*Marks : 38*

*Time : 2 hours*

*The figures in the margin indicate full marks  
for the questions*

Answer **one** question from each Unit

**UNIT—I**

1. Write short notes on the following : 4+4=8

(a) Refresh cathode-ray tubes

(b) Flat-panel display

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2. Write short notes on the following : 4+4=8
- (a) Raster-scan display
  - (b) Three-dimensional viewing devices

UNIT—II

3. With a suitable example, explain any parallel curve algorithm. 8
4. Explain the boundary fill and flood-fill algorithms. 4+4=8

UNIT—III

5. Explain an ellipse generating algorithm. 8
6. With the help of an example, explain reflection transformation of an object about the  $x$ -axis. What is shear transformation? 6+2=8

UNIT—IV

7. Explain the Cohen-Sutherland line clipping algorithm. 5
8. Explain the Sutherland-Hodgman polygon clipping algorithm. 5

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UNIT—V

9. Explain parallel projection and perspective projection.  $4\frac{1}{2}+4\frac{1}{2}=9$
10. Write a short note on Bézier curves. Explain the two properties of Bézier curves. 5+4=9

( Internal—12 )

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