Roll No. Printed Pages: 2

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BT-5 / D-17

COMPUTER GRAPHICS Paper-IT-309N opt (II)

Time allowed: 3 hours]

[Maximum marks: 75]

Note: - Attempt five questions in all, selecting at least one question from each unit.

Unit-I

- (a) What is Computer Graphics? Write down its applications. 6
 - (b) Derive the equations for Bresenham's circle drawing algorithm.
- 7 Explain Scan line Polygon fill algorithm.
 - Scan convert a circle whose radius is 7 and center at (0,0) 8 using midpoint algorithm.

Unit-II

- Explain window to view port mapping.
 - (b) Explain Weiler Atherton algorithm for Polygon Clipping.
- (a) Magnify the triangle with vertices A (0,0), B (1,1), C(5,2) to thrice its size while keeping its vertex C(5,2)10 fixed.
 - Write a short note on Text Clipping.

Turn over

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5

7

(2)

Unit-III

Explain all the transformations in 3D with suitable examples in detail. 15

What is Projection? Explain its types. 10

(b) Explain depth cueing. 5

Unit-IV

Explain Subdivision algorithm for hidden surface removal.8

(b) Describe B-spline curves. Write down properties of B-Spline approximation.

Write short notes on following: 5×3=15

(a) Morphing

(b) Animation

(c) Mouse.

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