

Code No: 155AM

R18

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year I Semester Examinations, February - 2022

COMPUTER GRAPHICS

(Common to CSE, IT)

Time: 3 hours

Max. Marks: 75

**Answer any five questions
All questions carry equal marks**

- 1.a) Discuss about midpoint circle algorithm with an example.
b) Distinguish between raster scan and random scan systems. [5+10]
- 2.a) Derive the decision parameter used in Bresenham's line drawing algorithm.
b) Write a short note on boundary fill algorithm. [8+7]
- 3.a) Discuss about Sutherland –Hodgeman polygon clipping algorithm with an example.
b) Explain about 2D viewing pipeline. [9+6]
- 4.a) Explain 2- dimensional scaling and shear transformations with an example.
b) Distinguish between window and view port. [10+5]
5. Briefly explain about the following:
a) Bezier curve
b) B-Spline curve. [7+8]
- 6.a) Explain about Hermite curve.
b) Write a short note on Polygon surfaces. [8+7]
- 7.a) Briefly explain the characteristics of perspective projections.
b) Derive the transformation matrix for rotation about y-axis in 3D. [7+8]
8. Discuss about the general-purpose languages used for animation. [15]

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