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
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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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