

Code No: 155AM

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year I Semester Examinations, September - 2021

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) Write Bresenham's line drawing algorithm and explain with suitable example.
- b) Describe about different video-display devices. [7+8]
- 2.a) Explain about Bresenham's ellipse drawing algorithm.
- b) Describe about scan line polygon filling algorithm. [8+7]
- 3.a) Summarize about Translation and scaling in 2-D geometrical transforms.
- b) Write about Cohen-Sutherland line clipping algorithm with an example. [7+8]
- 4.a) Describe about viewing coordinate reference frame with an example.
- b) Determine the rotation of a straight line (x_1, y_1) to (x_2, y_2) with respect to the point $(1, 2)$. [8+7]
- 5.a) Compare polygon surfaces with quadric surfaces.
- b) Describe about different polygon rendering methods. [7+8]
- 6.a) Describe about 3-D objects representation using B-spline curves.
- b) Compare the different illumination models. [8+7]
- 7.a) Describe about 3-D rotations with suitable examples.
- b) Describe about composite transformations and its matrices. [7+8]
- 8.a) Explain about design of animation sequence with an example.
- b) Describe about different motion specification methods. [7+8]

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