R18

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 $(x1,y1)$ to $(x2,y2)$ 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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