



Code: 9D04203

M.Tech II Semester Supplementary Examinations August/September 2018

**COMPUTER GRAPHICS**

(Common to CAD/CAM & PEED)

(For students admitted in 2013, 2014, 2015 & 2016 only)

Time: 3 hours

Max Marks: 60

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) Write working principle of colour display monitor with neat diagram.  
(b) Describe about flat panel display device with a diagram.
- 2 (a) Derive a digital differential analyser algorithm for drawing a line.  
(b) Describe the Midpoint circle-drawing method with necessary geometry.
- 3 (a) Explain anti-aliasing technique for polygon filling.  
(b) Explain how to fill a polygon with sorted edges of the polygon.
- 4 (a) Describe about Cohen Sutherland subdivision line clipping algorithm for clipping.  
(b) Discuss about the concept behind polygon clipping.
- 5 (a) Write an algorithm for character clipping.  
(b) Write short note on 3D-clipping.
- 6 (a) Derive formula for window port to view port transformation.  
(b) Derive transformation matrix for combination of scaling and then rotation.
- 7 (a) Explain about area subdivision method for hidden surface removal.  
(b) Write the concept behind z-buffer method for hidden surface removal.
- 8 (a) Describe how object can be shaded using Gouraud shading algorithm.  
(b) Compare various shading technique algorithms.

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