

**R09****Code: 9A05503**

B.Tech III Year II Semester (R09) Supplementary Examinations December/January 2015/2016

**COMPUTER GRAPHICS**

(Information Technology)

Time: 3 hours

Max Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) Define persistence of phosphorescence and persistence of vision. How they are related?  
(b) Differentiate between interactive and passive graphics.
- 2 (a) What are Graphic primitives? Mention some typical graphic primitives that a package may provide.  
(b) What is inside test? Explain the two methods for finding out a pixel is inside the polygon or outside the polygon.
- 3 Determine the form of the transformation matrix for a reflection about an arbitrary line with equation  $y = mx + c$ .
- 4 (a) Write the procedure for updating the screen in SPHIGS.  
(b) Write different modes of rendering.
- 5 (a) Derive the equation for polygon surface.  
(b) Compare Bezier curve and B-spline.
- 6 What are regularized Boolean set operations? How they are different from normal Boolean set operations? Explain in detail their significance.
- 7 Write notes on the following:  
(a) Gamut.  
(b) Gamma of CRT.
- 8 Describe the following terms:  
(a) Atmospheric attenuation.  
(b) Shadow masking method for colour monitor.  
(c) Gouraud shading algorithm

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