

Code No: **R42031****R10****Set No. 1****IV B.Tech II Semester Regular/Supplementary Examinations, April/May - 2016****INTERACTIVE COMPUTER GRAPHICS****(Mechanical Engineering)****Time: 3 hours****Max. Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks

- 1 a) What are the Application areas of Computer graphics? [7]
b) Write about raster-scan and random scan systems. [8]
- 2 a) Write an algorithm for line generation using Bresenham algorithm. [7]
b) Describe boundary-fill and flood fill algorithm. [8]
- 3 a) Define window and view port. What are the steps involved in window view port transformation. [8]
b) Explain the Cohen-Sutherland line clipping algorithm. [7]
- 4 a) Describe Bezier curve and B-spline curve. [8]
b) Explain Polygon and quadric surfaces. [7]
- 5 a) Explain diffuse reflection Lambert's cosine law and point source illumination. [8]
b) Illustrate Constant intensity shading algorithm. [7]
- 6 a) Explain Back-face visible surface detection method. [7]
b) Explain scan-line and depth sorting detection methods. [8]
- 7 a) Explain the types of animations. [7]
b) Explain about the general computer animation functions. [8]
- 8 a) Explain the multimedia systems with architecture. [8]
b) Write about Object-oriented authoring tools in multimedia. [7]

Set No. 2

Set No. 3

Code No: **R42031****R10****Set No. 4****IV B.Tech II Semester Regular/Supplementary Examinations, April/May - 2016****INTERACTIVE COMPUTER GRAPHICS****(Mechanical Engineering)****Time: 3 hours****Max. Marks: 75****Answer any FIVE Questions****All Questions carry equal marks***********

- 1 a) What is the overview of graphic system and what are the applications of computer graphics. [8]
b) Explain about raster-scan and random scan systems. [7]
- 2 a) Write bresenham line generation Algorithm. [8]
b) Explain the steps involved in scan line algorithm for polygon filling. [7]
- 3 a) Define window and view port. What are the steps involved in window view port transformation. [8]
b) Explain the cohen-sutherland line clipping algorithm [7]
- 4 a) Write about Bezier curves and surfaces. [7]
b) Discuss Solid modeling Schalars. [8]
- 5 a) What is illumination? Explain Light sources and point source illumination [8]
b) Write what are the steps involved in Constant intensity shading algorithm [7]
- 6 a) Explain depth buffer and scan-line visible surface detection methods [8]
b) Describe the Classification and back-face visible surface detection methods [7]
- 7 a) Write about computer animation functions [7]
b) What is animation ?Discuss types of animations and explain various methods of controlling animation [8]
- 8 a) Explain main properties of multimedia systems. [8]
b) Write about Object-oriented authoring tools [7]