PVP 14

Code: IT6T2

III B.Tech - II Semester – Regular Examinations – May 2017

COMPUTER GRAPHICS AND ALGORITHMS
(INFORMATION TECHNOLOGY)

Duration: 3 hours Max. Marks: 70

PART – A

Answer *all* the questions. All questions carry equal marks

11x 2 = 22 M

1.

a) What is a graphics system?
b) List the phases in rendering model.
c) Categorize open GL API functions.
d) Define physical input devices.
e) How double buffering can be specified in open GL.
f) Explain incremental rotation.
g) What is translation?
h) Define Axonometric Projections.
i) What is projection normalization?
j) What are the conditions to find out outcode of region according to Liang- Barsky algorithm.
k) Define Rasterization.

PART – B

Answer any *THREE* questions. All questions carry equal marks.

3 x 16 = 48 M

2. a) Write the important applications of computer graphics describe them briefly. 8 M

   b) Describe briefly about the control functions. 8 M

3. Illustrate about the programming event-driven inputs. 16 M

4. a) What are homogeneous coordinates? Explain. 8 M

   b) Describe briefly about affine transformation. 8 M

5. a) Derive the matrix for orthogonal projection. 8 M

   b) What are the OpenGL functions used to represent Parallel Projections? 8 M

6. a) Explain about Bresenham's line drawing algorithm with an example. 8 M

   b) Explain in detail about scan conversion with the Z-buffer. 8 M