PVP 14

Code: CS6T3

III B.Tech - II Semester – Regular/Supplementary Examinations
March 2020

COMPUTER GRAPHICS
(COMPUTER SCIENCE & ENGINEERING)

Duration: 3 hours Max. Marks: 70

PART – A

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

11x 2 = 22 M

1.

a) Define pixel and frame buffer.

b) Define aspect ratio.

c) What is overlay plane?

d) List out the logical devices.

e) What is affine transformation?

f) Define vertex array.

g) Differentiate parallel projection and perspective projection.

h) Define axonometric projection.

i) What is the use of inside-outside test?

j) Define fragment processing.

k) What is rasterization?

PART – B

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

3 x 16 = 48 M

2. a) Discuss in detail the application areas of computer graphics. 8 M

   b) Explain briefly graphics architecture. 8 M

3. a) Write a short notes on clients and servers. 8 M

   b) Discuss in detail Menus. 8 M

4. a) Derive a transformation matrix to rotate an object with respect to a given fixed point. 8 M

   b) Illustrate modeling a colored cube. 8 M

5. a) What is perspective normalization? Explain in detail. 8 M

   b) Discuss in detail two viewing APIs. 8 M

6. a) Apply Cohen-Sutherland line clipping algorithm to clip the line AB where A = (2, 1) and B = (11, 9) against the window coordinates (5, 0), (12, 0), (5, 8) and (12, 8) 8 M

   b) Discuss in detail Bresenham's line drawing algorithm. 8 M