BTS-V(R)-11.21-0953 Reg. No. | | | | | | | | |

B

B.Tech. Degree V Semester Regular Examination November 2021

CS 19-202-0504 COMPUTER GRAPHICS
(*2019 Scheme*)

Time: 3 Hours Maximum Marks: 60

PART A
(Answer ***ALL*** questions)

(8 × 3 = 24)

I. (a) Explain the working of shadow mask crt.
(b) Explain boundary fillagorithm.
(c) Explain DDA line drawing algorithm.
(d) Prove that successive scaling is multiplicative.
(e) Explain reflection about the line $y = x$.
(f) Explain midpoint subdivision line clipping.
(g) Compare object space and image space algorithm.
(h) Explain constant intensity shading.

PART B

(4 × 12 = 48)

II. Derive the decision parameters and explain midpoint ellipse drawing algorithm.

OR

III. Derive the decision parameters and explain midpoint circle drawing algorithm. Generate the circle whose centre is at (0, 3) and radius 3.

IV. Explain two dimensional viewing pipe line.

OR

V. With a neat flow chart explain Sutherland Hodgman polygon clipping. What are the limitations of Sutherland Hodgman polygon clipping? How can we rectify it?

VI. Explain three dimensional rotation about an arbitrary axis in space.

OR

VII. Explain painters. Explain how cyclic overlapping can be eliminated in painters algorithm.

VIII. Explain RGB, YIQ and CMY colour model.

OR

IX. Explain the steps involved in designing an animation sequence. Explain how the motions of objects can be specified in an animation system.

***