BTS-V(S)-(11.20/04.21)-1679 Reg. No. | | | | | | | | |

A

B.Tech. Degree V Semester Supplementary Examination November 2020/April 2021

CS 15-1506 COMPUTER GRAPHICS

(*2015 Scheme*)

Time: 3 Hours Maximum Marks: 60

PART A

(Answer *ALL* questions)

(10 × 2 = 20)

I. (a) Explain the working of beam penetration crt.

(b) Explain flood fill algorithm.

(c) Explain DDA line drawing algorithm.

(d) Prove that successive translations are additive.

(e) Explain reflection about the line $y = -x$.

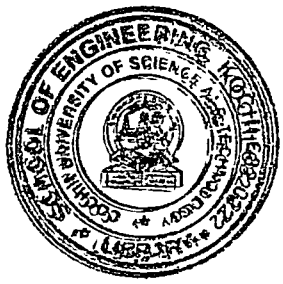
(f) Explain midpoint subdivision line clipping.

(g) Explain back face detection.

(h) Explain A Buffer algorithm.

(i) Explain constant intensity shading.

(j) Explain RGB color system.



PART B

(4 × 10 = 40)

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

OR

III. Derive the decision parameters and explain bresenhams line drawing algorithm. Generate the line whose end points are (20,10) and (30,18).

IV. Explain cohen sutherland line clipping.

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 scan line algorithm. What is span coherence?

VIII. Explain Gouraud shading and Phong Shading.

OR

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

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