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Roll Number: _____

Name: _____

Thapar Institute of Engineering & Technology, Patiala

Computer Science & Engineering Department

AUXILIARY EXAMINATION

B. E. (3rd Year)

Date: 23rd August 2022

Time: 2 hrs, M. Marks: 50

Course Code: UCS505

Course Name: Computer Graphics

Faculty: Anupam Garg

Note: All questions are compulsory.

1.	(a) Derive the formulas for mid-point circle drawing algorithm. (5)
	(b) Assume 10 cm as the radius of the circle and coordinate origin as the center of the circle. Calculate the successive coordinate's using midpoint circle drawing algorithm. (5)
2.	(a) How reflection is different from shearing transformation. Explain with example. (3)
	(b) Magnify the triangle with vertices A (0,0), B (1,1) and C (5,2) to twice its size while keeping C (5,2) fixed. (7)
3.	(a) How is coherence property important for the hidden surface detection? Explain the different types of coherence properties available in the surfaces. (1+4)
	(b) Explain the difference between depth buffer and depth sort algorithm. (5)
4.	(a) Explain the conditions of Sutherland Hodgeman algorithm. (5)
	(b) What is the drawback of Sutherland Hodgeman algorithm and explain in detail how it is removed. (5)
5.	(a) Write the taxonomy of projection along with examples. (5)
	(b) Explain the Fresnel's law of reflection. (5)