SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
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Continuous Assessment Examination 1 (Aug. 2021)

Program : **B.E/B.Tech - CSE/IT** **Max. Marks : 30**
Course : **Computer Graphics and Multimedia Applications** **Time : 1 Hour**
Course code : SCSA1503 **Sem :V**
Batch : 2019-2023 **Date : 11-8-2021**

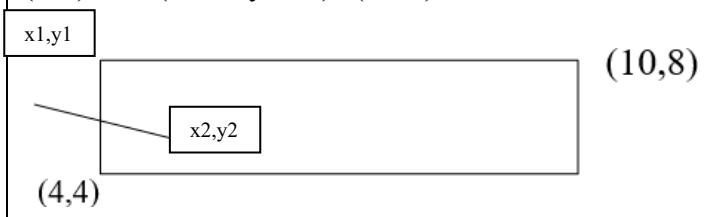
Part-A **Answer ALL the questions** **(5×2=10)**

Q.No	Questions	CO
1.	In raster graphics, what is true-color system? Explain	CO(1)
2.	List the various input devices that are adopted in a graphics system	CO(1)
3.	Find the xincrement and yincrement using DDA algorithm given (xa,ya)=(10,15) and (xb,yb)=(20,18).	CO(1)
4.	Determine the steps required for window-viewport transformation	CO(2)
5.	List the various types of clipping algorithms	CO(2)

Part-B **Answer ALL the questions** **(2×10=20)**

Q.No	Questions	CO
6.	Let (x1,y1) = (5,5) and (x2,y2) = (12,10). Use Bresenham line drawing algorithm and with algorithm explain how the intermittent points are generated	CO(1)
	(OR)	
7.	Adopt mid-point subdivision algorithm for drawing circle and with algorithm show a circle can be constructed with center coordinates (5,5) and radius 10.	CO(1)

8.	a. Given a triangle ABC, with A (2,2), B (4,6) and C (6,2). Find the reflected position of triangle i.e., with respect to the y-axis. b. Shear with respect to Y axis, given A(0,0), B(0,4), C(3,4), D(3,0) with Shy=2.	CO(2)
	(OR)	

9.	Consider the below example and if the coordinates of the line segment are (x_1,y_1)= (2,6) and (x_2,y_2) =(6,5),find the point of intersection of line with the boundary selecting Cohen Sutherland line clipping algorithm, considering (x_{wmin},y_{wmin}) = (4,4) and (x_{wmax},y_{wmax})=(10,8).  	**CO(2)**