

CSE 423 Spring 2022  
 Quiz #2, 01-03-2022  
 Marks: 20, Time: 50 minutes (40 for writing + 10 for pdf submission)

Instructions:

1. Answer all of the following questions with pen and paper (Don't use any graphics tab)
2. Write your student ID and page number on top of every page.
3. Merge your answers into a single pdf file and submit via this form:

<https://forms.gle/XnFFzLDPcF19FB6QA>

1.	Explain how we can determine the position of a 2-dimensional point using the region code.	03
2.	<p>Suppose a line segment starts at <math>(x_0, y_0)</math> and ends at <math>(x_1, y_1)</math> where, <math>x_0, y_0, x_1</math> and <math>y_1</math> are sequentially the first, second, third and fourth pair of digits from the left in your student ID.</p> <p>For example, if your ID is 15101298, then <math>x_0 = 15, y_0 = 10, x_1 = 12, y_1 = 98</math>.</p> <p>Let, a clipping window is given where <b><math>x_{\min} = -10, x_{\max} = 100</math> and <math>y_{\max} = 110</math></b>.</p> <p>Now, assume <b>S</b> be the set of candidate values of <b><math>y_{\min}</math></b> such that the line is trivially rejected. What is the smallest integer number in <b>S</b>?</p>	03
3.	Note down the drawbacks of Cohen-sutherland Line Clipping Algorithm.	04
4.	<p>Determine whether the following line is accepted/rejected/partial using Cohen Sutherland line clipping algorithm. If it is partially accepted/rejected, find the line segment within the clipping window.</p> <p><b>Clipping Region:</b> <math>(-220, -150)</math> to <math>(120, 250)</math></p> <p><b>Line:</b> <math>(250, 150)</math> to <math>(100, 260)</math></p>	10