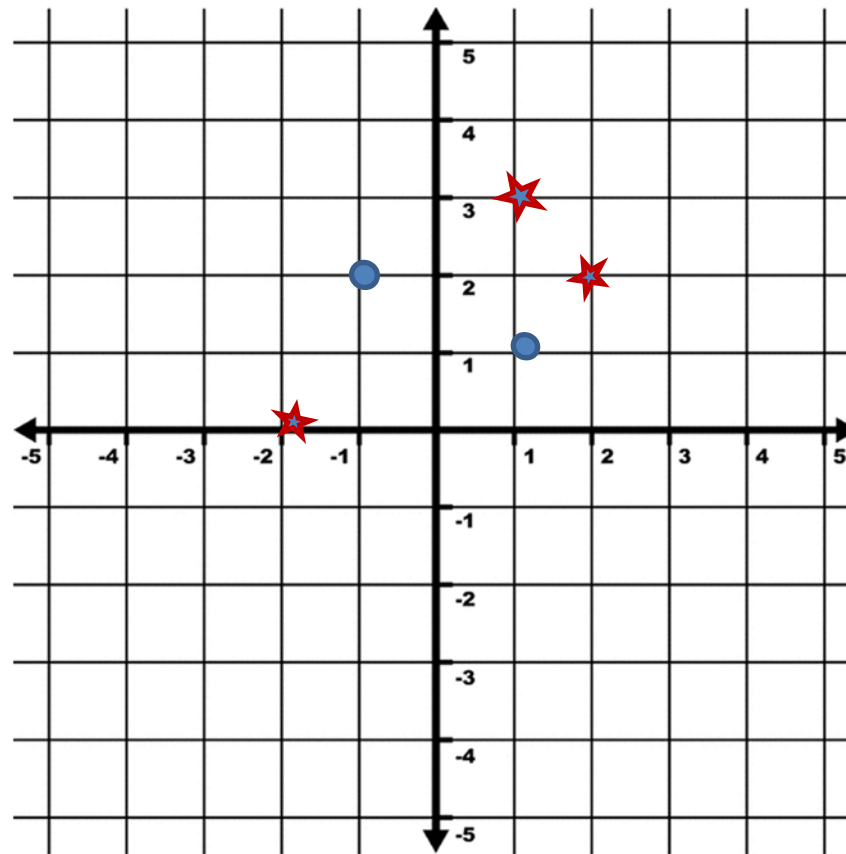


CSE-5368-001 Neural Networks
Spring 2023 Quiz 01

Time: 10 Minutes

Design a two-layer Perceptron neural network with two nodes in the first layer and one node in the second layer which will correctly classify the two classes (circles and stars) as shown below. Assume the activation (transfer) function for all the nodes are hard-limit with the output of **0 (star)** and **1 (Circle)**. YOU MUST SHOW YOUR CALCULATIONS.



Show the weight matrices and biases for both layers.

Biases should be included in the weight matrices in the first column.