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| **Exp No.** | **Experiment Name** |
| 01 | Write a MATLAB or program using perception net for AND function with bipolar inputs and targets. The convergence curves and the decision boundary lines are also shown. |
| 02 | Write a MATLAB or Python program to recognize the numbers 1 to 4 from the matrix form of number. The net has to be trained to recognize all the numbers, and when the test data is given, the network has to recognize the particular number. |
| 03 | Generate the XOR function using the McCulloch-Pitts neuron by writing an M-file or .py file. |
| 04 | Write a MATLAB or Python program to show Back Propagation Network for XOR function with Binary Input and Output. |
| 05 | Write a MATLAB or Python program for solving linearly separable problem using Perceptron Model. The convergence curves and the decision boundary lines are also shown. |
| 06 | Write a MATLAB or Python program for XOR function (binary input and output) with momentum factor using back propagation algorithm. |
| 07 | Implement the SGD Method using Delta learning rule for following input-target sets. Xinput = [0 0 1; 0 1 1; 1 0 1; 1 1 1], DTarget = [0; 0; 1; 1] |
| 08 | Implement the Batch Method using Delta learning rule for following input-target sets. Xinput = [0 0 1; 0 1 1; 1 0 1; 1 1 1], DTarget = [0; 0; 1; 1] |
| 09 | Compare the performance of SGD and the Batch method using the delta learning rule. |
| 10 | Write a MATLAB or Python program to recognize the image of digits. The input images are five-by-five-pixel squares, which display five numbers from 1 to 5, as shown in Figure 1. |
| 11 | Write a MATLAB or Python program to classify face/fruit/bird using Convolutional Neural Network(CNN). |