Sub :Machine Learning

Sem:4th and 6th (CS and IS)

Assignment -2 date:26/3/2020

1. How a single perceptron can be used to represent the Boolean functions such as AND, OR
2. Design a two-input perceptron that implements the boolean function A Λ ¬ B. Design a two-layer network of perceptron’s that implements A XOR B.
3. Explain Naïve baye’s classifier with an example .
4. Consider a medical diagnosis problem in which there are two alternative hypotheses: that the patient has a particular form of cancer (+) and 2. That the patient does not (-). A patient takes a lab test and the result comes back poslliyg, The test returns a correct positive result in only 98% of the cases in which the disease is actually present, and a correct negative result in only 97% of the cases in which the disease is not present Furthermore, .008 of the entire population have this cancer.Determine whether the patient has Cancer or not using MAP hypothesis.