**Minimum threshold,error and values of weight and bias for AND function in perceptron**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No. iteration** | **Error** | **Bias(W0)** | **Weight1(W1)** | **Weight2(W2)** |
| **1.** | **1** | **0.01** | **0.01** | **0.01** |
| **2.** | **-1** | **0** | **0** | **0.01** |
| **3.** | **-1** | **-0.01** | **0** | **0** |
| **4.** | **0** | **-0.01** | **0** | **0** |
| **5.** | **1** | **0** | **0.01** | **0.01** |
| **6.** | **-1** | **-0.01** | **0** | **0.01** |
| **7.** | **0** | **-0.01** | **0** | **0.01** |
| **8.** | **0** | **-0.01** | **0** | **0.01** |
| **9.** | **1** | **0** | **0.01** | **0.02** |
| **10.** | **-1** | **-0.01** | **0** | **0.02** |
| **11.** | **-1** | **-0.02** | **0** | **0.01** |
| **12.** | **0** | **-0.02** | **0** | **0.01** |
| **13.** | **1** | **-0.01** | **0.01** | **0.02** |
| **14.** | **0** | **-0.01** | **0.01** | **0.02** |
| **15.** | **-1** | **-0.02** | **0.01** | **0.01** |
| **16.** | **0** | **-0.02** | **0.01** | **0.01** |
| **17.** | **1** | **-0.01** | **0.02** | **0.02** |
| **18.** | **-1** | **-0.02** | **0.01** | **0.02** |
| **19.** | **0** | **-0.02** | **0.01** | **0.02** |
| **20.** | **0** | **-0.02** | **0.01** | **0.02** |
| **21.** | **0** | **-0.02** | **0.01** | **0.02** |
| **22.** | **0** | **-0.02** | **0.01** | **0.02** |
| **23.** | **0** | **-0.02** | **0.01** | **0.02** |
| **24.** | **0** | **-0.02** | **0.01** | **0.02** |
| **25.** | **0** | **-0.02** | **0.01** | **0.02** |
| **26.** | **0** | **-0.02** | **0.01** | **0.02** |
| **27.** | **0** | **-0.02** | **0.01** | **0.02** |
| **28.** | **0** | **-0.02** | **0.01** | **0.02** |
| **29.** | **0** | **-0.02** | **0.01** | **0.02** |
| **30.** | **0** | **-0.02** | **0.01** | **0.02** |
| **31.** | **0** | **-0.02** | **0.01** | **0.02** |
| **32.** | **0** | **-0.02** | **0.01** | **0.02** |
| **33.** | **0** | **-0.02** | **0.01** | **0.02** |
| **34.** | **0** | **-0.02** | **0.01** | **0.02** |
| **35.** | **0** | **-0.02** | **0.01** | **0.02** |
| **36.** | **0** | **-0.02** | **0.01** | **0.02** |
| **37.** | **0** | **-0.02** | **0.01** | **0.02** |
| **38.** | **0** | **-0.02** | **0.01** | **0.02** |
| **39.** | **0** | **-0.02** | **0.01** | **0.02** |
| **40.** | **0** | **-0.02** | **0.01** | **0.02** |

**Conclusion:-**

**1). So from this data of output we can say that minimum error for AND function in perceptron is -1.**

**2). Minimum Threshold value for AND function in perceptron is 5.**

**3). Entire Training data set is itrating at 5 times so we can say that epochs of this training data set is 5.**