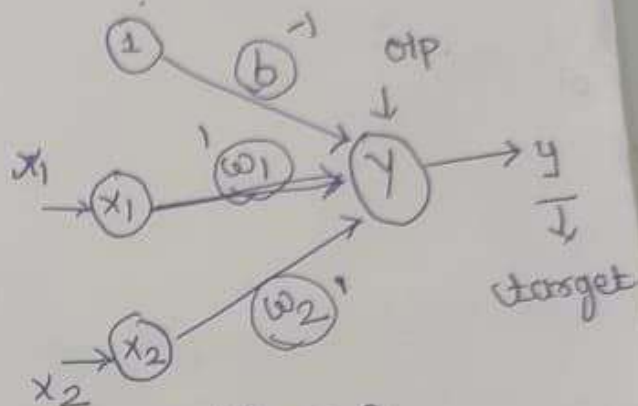




Annexure No.:

Single Layered Perceptron:-

x_1	x_2	t
1	1	1
1	-1	-1
-1	1	-1
-1	-1	-1



$$\begin{aligned} w_1 &= 0 \\ w_2 &= 0 \\ b &= 0 \end{aligned}$$

$$y_{in} = b + x_1 w_1 + x_2 w_2$$

Round: 1

Input		Target	Net ip (y_{in})	o/p	weight change		
x_1	x_2	(t)			Δw_1	Δw_2	Δb
1	1	1	0	0	1	1	1
1	-1	-1	1	1	-1	1	-1
-1	1	-1	2	1	+1	-1	-1
-1	-1	-1	-3	-1	0	0	0

weights

$w_1(w)$ $w_2(w)$ $b(w)$

1	1	1
0	2	0
1	1	-1

1	1	-1
---	---	----

✓

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$$L.R = 1$$

Annexure No :

$$\Delta w_1 = \alpha \pm x_1$$

$$\Delta w_2 = \alpha \pm x_2$$

$$\Delta w_b = \alpha \pm$$

$$y = f(y_{in}) = \begin{cases} 1 & y_{in} > 0 \\ 0 & = 0 \\ -1 & < 0 \end{cases}$$

Round: 2

x_1	x_2	(\pm)	(y_{in})	O/P	Δw_1	Δw_2	Δb	w_1	w_2	w_b
1	1	1	1	1	0	0	0	1	1	-1
1	1	1	1	-1	0	0	0	1	1	-1
1	-1	-1	-1	-1	0	0	0	1	1	-1
-1	1	-1	-1	-1	0	0	0	1	1	-1
-1	-1	-1	-3	-1	0	0	0	1	1	-1

done by
students

x_1	x_2	x_3	x_4	b	(\pm)
1	1	1	1	1	1
1	1	-1	-1	1	1
-1	-1	1	-1	1	-1
1	1	1	1	1	-1
1	-1	-1	1	1	-1

$$\underline{\underline{w = 0}}$$

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