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Answer to the question no: 1

$$n = (17101007 1/.3) + 1 = 3$$

$$m = (17101007 1/.4) + 2 = 5$$

$$\begin{array}{c} \chi_0 = +1 \\ \hline \chi_0 = 3 \\ \hline \chi_1 = 3 \\ \hline \chi_2 = 3 \\ \hline \chi_2 = 3 \\ \hline \chi_2 = 3 \\ \hline \chi_3 = 3 \\ \hline \chi_2 = 3 \\ \hline \chi_3 = 3 \\ \hline \chi_3 = 3 \\ \hline \chi_4 = 3 \\ \hline \chi_5 = 3 \\$$

$$\Sigma_{(0,0)} = 1 \times 3 + 0 \times -3 + 0 \times -3 = 3$$
  
Using sigmoid function, =  $\frac{1}{1+e^{-3}} = 0.95 > 0.5 = 1$ 

$$\sum_{(0,1)=1\times3+0\times-3+1\times-3=0}$$

$$\Sigma_{(1,0)} = 1 \times 3 + 1 \times -3 + 0 \times -3 = 0$$

3	Marie Marinaz Pasia
	ID: 17101007 Sec-A 07-4
	Er = 1×3 + 1×(-3)+ 1×(-3) = -3
	Vsing sigmoid function, = 0.04 <0.5
	50, the truth table wises,
	X0 X1 Y X2 X X X X X X X X X X X X X X X X X
1-1	logic gate for a is NAND gate. (1)
	$(\chi_2)$ $(\chi_2)$ $(\chi_3)$ $(\chi_4)$ $(\chi_5)$ $(\chi_5$
6	100 200 = - 1 = noithment 100 mg (0,1) - 14e

 $\sum_{(0,0)} = 1 \times \frac{5}{2} + 0 \times -5 + 0 \times -5 = 2.5$ Using sigmoid function, 100 1+e-2.5 = 0.92 > 0.5 = : 14=1  $\Sigma_{(0,1)} = 1 \times \frac{5}{12} + 0 \times -5 + 1 \times -5 = -2.5$ Using sigmoid function,  $\frac{1}{1+e^{+2.5}} = 0.07 < 0.5$  $\sum_{(1,0)} = 1 \times \frac{5}{2} + 1 \times -5 + 0 \times -5 = -2.5$ Using sigmaid function 1+e+2.5 = 0.9270.5 .. Y=0  $\sum_{(1,1)} = 1 \times \frac{5}{2} + 1 \times -5 + 1 \times -5 = -7.5$  $\frac{1}{1+e^{-(-7.5)}} = 0.005 < 0.5 : 7=0$ 

So the truth table; xo + = x = 3
$\chi_1 \mid \chi_2 \mid \chi$
O O I worthow to o O
Veing signoid function. 1 0 0 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1
· Logic gate for a(2) is HAND NOR
gate. Prostont brompie god
0=8 refe - 3.0 (300) = -
146,0 0.0 + 70.0
2.9-= 3-x0+3-x1+3x1=(0.1)3
i and function
30) FO. 0 3C+
- 6-X1+6-X1+6X1 -
0-6-50000 (141)
(m) 1 = 0.005 < 0.5 = (d.f.) 1 = (d.f.)

## Answer to the question no? 2

McCulloch and model is the simplest model which only generates a binary output and there is a threshold value which is fixed. Output value Y will be given considering Output value. Y will be given considering the threshold value. If the summation is the threshold value then y=1 greater than the threshold value then y=1 and to otherwise output y=0

otherwise output 
$$y=0$$

wo

 $y=0/1$ 
 $y=0/1$ 
 $y=0/1$ 
 $y=0/1$ 

On the other hand, in single newson perception model, there is an activation function. Output y will be given considering the value of activation function. If we use sigmoid function as an activation function then output y will

be 1 for f(x) 7,0.5 and output y will be Me Callock model is 240 > (w) to rot of one would be sold and which one wo wo wo work to the contract one of the contract one y = 0/121 world and EI empr blockout suf-E = 2000 to the wise out to book = 2. f (3) = 1 f(E) > 0.5 => y=1 f(E) < 0.5 € > y=0 So the main difference is McCulloch model use thrushold value and single newson perception use activation function. models that is an activation function. Output y will be given considering the value of activation function. If we use eigeneid function as an activation function them output y will