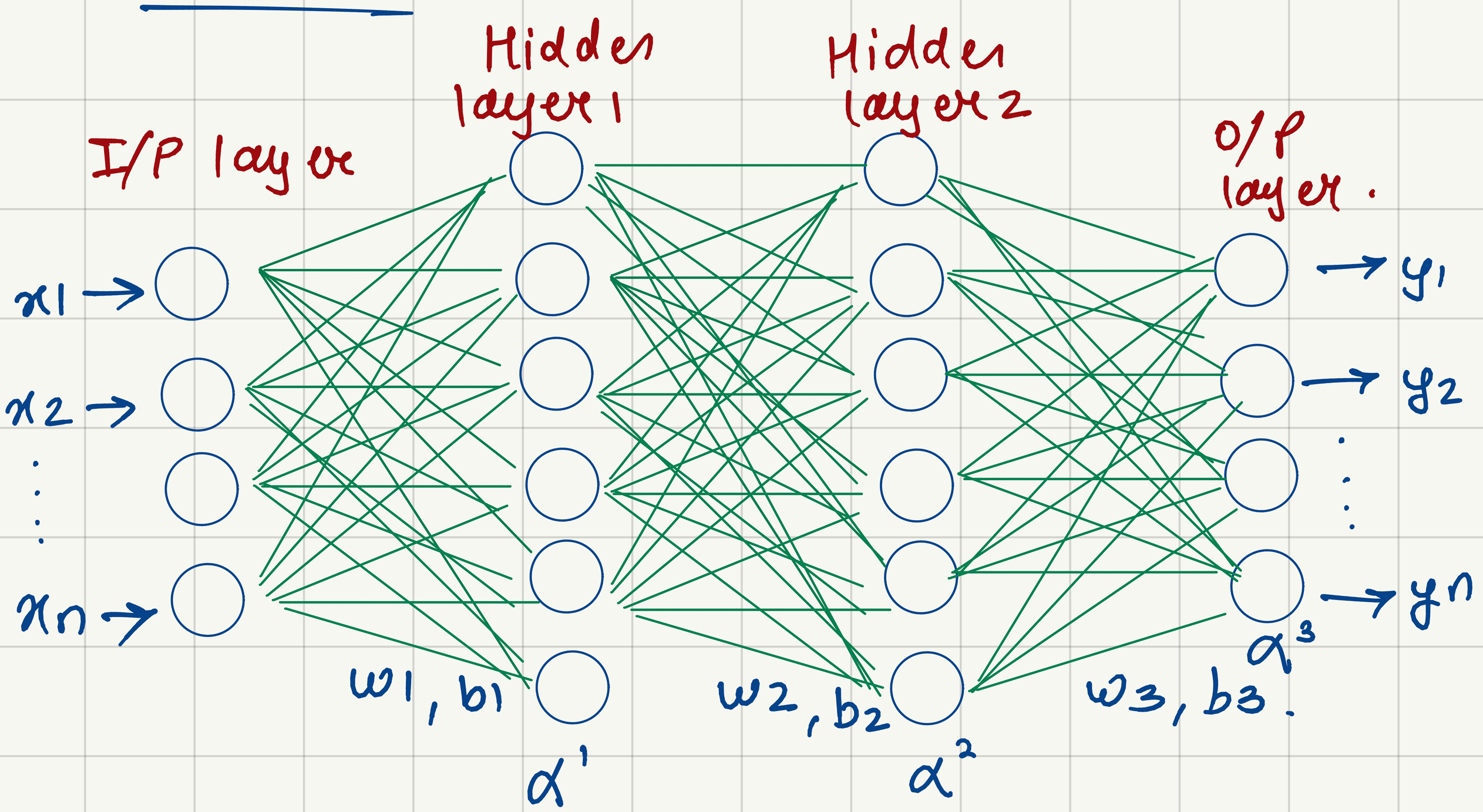
In class Activity 2

Problem 1



$\alpha \longrightarrow$ activation function.

Problem 2.

General equation is

$$y = f(wx + b)$$

let us assume Step function as as activation function.

$$f(z) = \begin{cases} 1 & z \geq 0 \\ 0 & z < 0 \end{cases}$$

$\therefore \quad f(w \cdot 2 + b) = 1.$

for the f^n to o/p 1, the value of $w \cdot 2 + b$ should be ≥ 0

$\therefore \quad w \cdot 2 + b \geq 0.$

$2 \cdot w \geq -b.$

$w \geq -\frac{b}{2}$

for any w, this equation satisfies.

let $w = 1$ then $b = -2$.

let $w = 0.5$ then $b = -1$