**ARTIFICIAL INTELLIGENCE**

**Homework - 03**

**20066193**

**2 Solution a)** In the problem, it is given that 𝞼(α)=1/{(1-eα)}

and we need to show that

= 𝞼(α)(1- 𝞼(α)) ----(1)

=> = { 1/{(1-eα)} }

=> ( σ(α)) = ()

=> 1/(1+)\*[1-{1/(1+)}]

=>1/(1+) \*{{1+/ (1+)

=> 1/(1+)\* 1/(1+)

=> 1/(1+)2 assume this as equation ------(1)

Now we Calculate

=> σ(α).(1-σ(α)

=> [1-]

=> 1/(1+) \*{{1+/ (1+)

=> => 1/(1+)2 --------(2)

We observe that equations (1) and (2) are equal and we have proved the given equation in the problem.