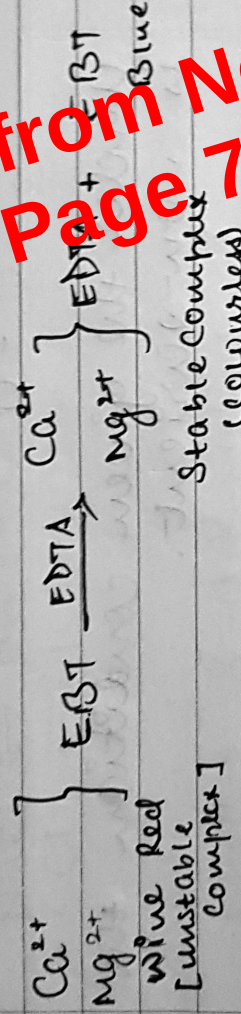


water is at  $0.0098^\circ\text{C}$  temperature and  $4.58 \text{ mmHg}$  pressure.

here,

$$P = 3 \quad \& \quad C = 1$$

$$\therefore F = 0 \quad [\text{no variable}]$$



Q4) Find the number of degree of freedom in the following system, name the variables that correspond to these degree of freedom.

i) water (liquid)  $\rightleftharpoons$  water vapour

ii) water (liquid)  $\rightleftharpoons$  water vapour + atmospheric pressure.

Ans) i)  $P = 2, C = 1$

$$F = C - P + 2$$

$$= 1 - 2 + 2$$

$$F = 1 \quad [\text{mono variable}]$$

Thus only one variable  $T$  or  $P$  need to be specified.

ii) Since pressure is kept constant,