

①



$$\% K = 28.2 \quad \% Ce = 25.6\%$$

D

$$\% O = 46.2\% = \frac{16.4}{138.55} \cdot 100$$

② HNO_3

$$[HNO_3] = 0.5 M$$

per 1 L di soluzione 0.5 moli di HNO_3

$$1 L \Rightarrow 1.09 \text{ kg}$$

$$\text{MASSA DI } HNO_3 = 0.5 \cdot 63.01 = 31.5 \text{ g}$$

$$\% HNO_3 = \left(\frac{31.5}{1.09 \cdot 10^3} \right) \cdot 100 = 2.9\%$$

D

③

$$n_{SO_2} = \frac{PV}{RT} = \frac{4 \cdot 20}{R \cdot 373} = 2.6 \text{ moli}$$

$$n_{CS_2} = n_{SO_2} / 2 = 1.3 \text{ moli}$$

$$\text{MASSA } CS_2 = 1.3 \cdot 76.15 = 99 \text{ g}$$

C

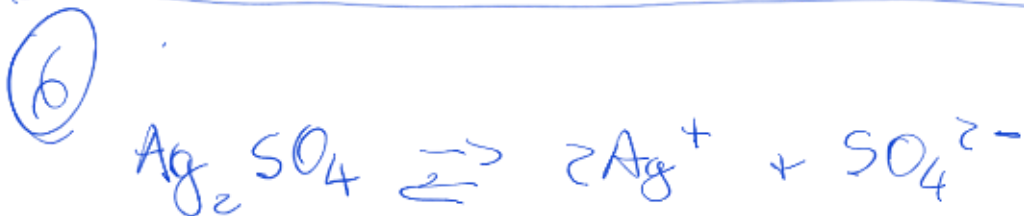
$$\textcircled{4} \quad M_{\text{HCOO}^-} = 0.01 \text{ mol/l} \Rightarrow [\text{HCOO}^-] = 0.01 \text{ M}$$

$$K_b = K_w / K_a = 5.65 \cdot 10^{-11}$$

$$[\text{OH}^-] = \sqrt{K_b \cdot 0.01} = 7.51 \cdot 10^{-7} \text{ M}$$

$$\text{pOH} = 6.12 \Rightarrow \text{pH} = 7.88 \quad \boxed{\text{C}}$$

$\textcircled{5}$ $\boxed{\text{B}}$



$$(2s)^2 \cdot s = 4s^3 = K_{\text{ps}}$$

$$s = \sqrt[3]{K_{\text{ps}}/4} = 0.0162 \text{ M}$$



$$s = \sqrt[3]{K_{\text{ps}}/4} = 0.000127 \text{ M}$$



$$s = \sqrt{K_{\text{ps}}} = \underline{1.09 \cdot 10^{-8} \text{ M}}$$



$$0.5 \cdot \tau \leftarrow - 8 \cdot \tau \cdot 10^4$$

$$(3\lambda)^3 \lambda = 27 \lambda^4 = K_{PS}$$

$$\lambda = \sqrt[4]{K_{PS}/27} = 1.51 \cdot 10^{-5} \text{ m}$$



Ultima modifica: 12:39