Bank Questions

Q1/ Calculate the pH and pOH for each of the following solution:

a) 0.021M NaOH solution.

b) A solution prepared from the mixing of 50.0 mL of 0.02 M HCl with 25 mL of 0.01M KOH.

c) 0.01 M H2C2O4 solution. (Ka1 = 5.9 x 10-2 ; Ka2 = 6.4 x 10-5)

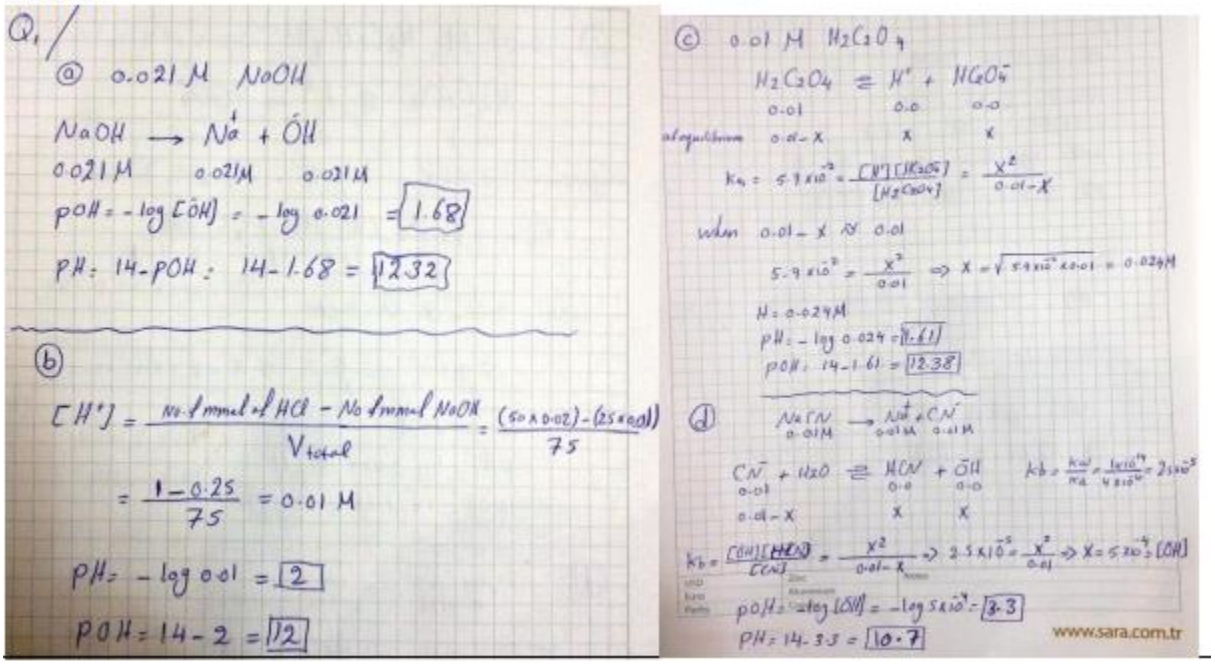
d) 0.01M sodium cyanide solution. (Ka HCN = 4.0 x 10-10)

e) A buffer solution is prepared by mixing 500.0 mL of 0.10 M NaOCl and 500.0 mL of 0.20 M HOCl. [Ka(HOCl) = 3.2 × 10-8].

f) A buffer solution that contains 0.25M Benzoic acid (C6H5CO2H) and 0.15 M sodium benzoate (C6H5COONa). [Ka (C6H5CO2H) = 6.5×10-5].

g) A buffer solution prepared by dissolving 0.2 mole of cyanic acid (HCNO) and 0.8 mol of sodium cyanate (NaCNO) in enough water to make 1.0 liter of solution, Calculate the pH and pOH after addition of 1 mL of 0.1 M NaOH. [Ka(HCNO) = 2.0×10-4]

Answer/



Q/ Answer the followings

1- **Soxhlet extraction this process is otherwise known as continuous hot extraction.**

2- **In volatilization method origin phase is liquid while final phase (formed phase) is solid.**

3- **Extraction is the method of removing active constituents from solid or liquid by means of liquid solvent.**

4- **Dissolution of extractive substance out of intact plant cell by diffusion requires stepping and swelling .**

Q/ Write name of extraction methods.

Methods of extraction :

- Infusion
- Decoction
- Digestion
- Maceration
- Percolation
- Continues hot extraction
- Supercritical fluid extraction
- Counter current extraction
- Microwave assisted extraction
- Ultrasonication-Assisted Extraction: