CHEMISTRY SSC-II Time allowed: 2:40 Hourso Total Marks: 53 Note:- Answer and wieven perts from Section 'B' and any two questions from Section Con the separately provided answer book. Use supplementary answer sheet i.e. Sheet-B if required. Write year answers neatly and legibly. SECTION - B (Marks 33) Q.2 Attempt any ELEVEN parts. The answer to each part should not exceed 3 to 4 lines. (11×3=33) Write K_c expression of the following (i) reactions: a. $H_2(g) + I_2(g) \Rightarrow 2HI(g)$ b. $N_2O_4(g) \Rightarrow 2NO_2(g)$ $PCl_s(g) \Rightarrow PCl_s(g) + Cl_s(g)$ (ii) Discuss Le Chatellier's principle with an example Differentiate between Lewis concept and (iii) Bronsted-Lowery concept of acids and bases. (iv) Write three valuable applications of pH measurement. What is a functional group? Draw structural (v) formulas of the functional groups present in the following compounds:

(vi) What happens when an unsaturated organic compound is treated with? (no equation required)

a. Bromine water

b. Iodine solution

c. Dilute alkaline X Milo Solution

a. Aldehyde

(vii) How would you prepare?

water treatment.

manufacturing

(viii)

Ethane from Ethyne

Amine

b.

a. Glucose b. Fructose
c. Amino acid

(ix) Write three differences between DNA and RNA.

1, 2-Dibromoethane from Ethene

Draw structural formulas of the following

(x) Acid rain has lesser pH than normal rain. Write down the balanced equations to show the formation of Waso, and HNO, in the

(xi) What is Hard water? Discuss its types.

(xii) Explain the coagulation process in Raw

(xiii) Mention the sources and one harmful effect of the following pollutants.

a. SO₂ b. CFC's

c. CO

(xiv) Draw a Flow Sheet diagram for Urea

(xv) Explain the carbonation process in the

manufacturing of Soda ash by Solvay's process

SECTION - C

Note: Attempt any 1w0 questions. All questions carry equal marks. (2×10=20)

Q.3 a. Discuss the Fractional Distillation of

petroleum and write names of Eight

b. Discuss two methods to remove permanent hardness from water.

Q.4 a. Write down two sources and one use of fat

soluble vitamins, also write the name of a disease caused by the deficiency of each fat soluble vitamin.

b. Explain the depletion of ozone layer by

b. Explain the followings not be and Vicinal dihalides. 03+03

Dehydrohalogenation

ii. The law of Mass action

Q.5 a. Discuss