GIRLS CADET COLLEGE MARDAN
ENTRY TEST FIRST YEAR MODEL PAPER- CHEMISTRY

Total Marks: 50 **Time allowed: 1:00 hour**

Q1: Multiple choice Questions. **(10 marks)**

i. The concentration of products will be higher when Kc is equal to:

a. 10^{2} b. 10^{30} c. 10^{-30} d. 1

ii. Which one is a Monoprotic Acid?

a. H_2SO_4 b. H_3PO_4 c. HCl d. H_2CO_3

iii. $NaHCO_3$ is an_____salt.

a. Acidic b. Basic c. Neutral d. Amphoteric

iv. What is the general formula of an Alkyl Radical?

a. C_nH_{2n+2} b. C_nH_{2n} c. C_nH_{2n-2} d. C_nH_{2n+1}

v. The next Homologue of C_7H_{16} is:

a. C_6H_{14} b. C_8H_{18} c. C_9H_{20} d. $C_{10}H_{22}$

vi. Which of the given are not saturated in nature?

a. Alcohols b. Alkenes c. Alkynes d. Cyanides

vii. All are hydrolysable sugars except:

a. Galactose b. Sucrose c. Maltose d. Lactose

viii. Which vitamin is known as calciferol?

a. A b. B c. C d. D

ix. Normal rainwater is slightly acidic due to the presence of:

a. SO_2 b. NO c. CO_2 d. HNO_3

x. What is the cause of temporary Hardness of water?

a. $Ca(HCO_3)_2$ b. $CaCl_2$ c. $CaSO_4$ d. $MgCl_2$

Q2: Fill in the blanks. **(Marks: 10)**

i. Blister copper is _____form of copper.

ii. Petroleum is mixture of many _____

iii. In alkenes_____reaction take place.

iv. Baeyer's reagent is _____

v. A reversible reaction proceeds in the _____

vi. The equilibrium Constant can be used to_____

vii. _____ are used for measurement of strength of acid and bases.

viii. Lower the pH value_____will be an acid.

ix. _____ is a basic component of paper industry.

x. Vitamin _____ is called ascorbic acid.

Q2: Attempt all questions. Each part carries 05 marks. **(Marks: 30)**

i. Write down the products of sucrose hydrolysis.

ii. How are alkenes prepared by elimination reactions? Give examples.

iii. Write down the balanced chemical equation and equilibrium constant expression for the synthesis of Ammonia from Nitrogen and Hydrogen?

iv. Why ice floats on the surface of water. Give reason.

v. How is ammonia recovered in Solvay's process?