

- Q.25 Write any four Application of Le-chateleir Principle.
- Q.26 Discuss theory of catalyst?
- Q.27 Define Gels and write types of gels.
- Q.28 What is Brownian Movement in colloidal system?
- Q.29 Explain Optical properties of sol?
- Q.30 What is composition of soap and give reaction of manufacturing of soap.
- Q.31 What is Hardy - Schulz Law in coagulation of colloid?
- Q.32 What is Saponification reaction?
- Q.33 List types of detergents.
- Q.34 What are Limitation of Soaps?
- Q.35 What is Lewis Concept of acid & bases with examples.

#### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Explain Cleansing action of Soaps and its chemical composition.
- Q.37 Explain
- Tyndall Effect
  - Electrical property of sol.
- Q.38 Define soap. Write chemical composition of soap. Discuss the cleansing action of soap.

No. of Printed Pages : 4

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**3rd Sem / Text. proc., Text Chem**  
**Subject:- Physical and Organic Chemistry /**  
**Basic Chemistry**

Time : 3Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Which one of them is natural dye
- reactive
  - vat
  - direct
  - indigo
- Q.2 Soap in water is \_\_\_\_\_ solution.
- basic
  - acidic
  - colloidal
  - none of them
- Q.3 Process of addition of halogens in unsaturated compound is called
- Halogenation
  - rinsing
  - hydrogenation
  - printing
- Q.4 Process of addition of hydrogen in unsaturated compound is called
- Washing
  - rinsing
  - hydrogenation
  - printing

- Q.5 General formula of Alkene is
- a)  $H_{2n+2}$                       b)  $C_nH_{2n}$   
 c)  $C_nH+2$                       d)  $C_n$
- Q.6 The process of scattering of light by the sol particles is called \_\_\_\_\_
- a) Light effect                      b) Tyndall effect  
 c) sound effect                      d) none of them
- Q.7 The pH of a solution can be measured with the help of an apparatus called \_\_\_\_\_
- a) Washing                      b) rinsing  
 c) pH meter                      d) printing
- Q.8 Property of organic compounds having same chemical formula but different properties
- a) Chlorination                      b) Isomerism  
 c) Sulphonation                      d) hydrogenation
- Q.9 Dye manufactured in industry is called \_\_\_\_\_ dyes
- a) synthetic                      b) natural  
 c) market                      d) all of them
- Q.10 Natural sources of fats and oil comes from a variety of
- a) Animal                      b) vegetable  
 c) mineral                      d) all of them

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## SECTION-B

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Chemical Formula for Acetic Acid is \_\_\_\_\_.  
 ( $H_2SO_4/CH_3COOH$ )
- Q.12  $pH = -\log [H^+]$  10 is formula of? (Dye/pH)
- Q.13 Dye obtained from nature is called \_\_\_\_\_ dyes  
 (synthetic/natural)
- Q.14 What does -CHO functional group is called?  
 (Ketone/Aldehyde)
- Q.15 Name the scale on which pH values are computed?
- Q.16 Name any two hydrocarbons.
- Q.17 Name any two water soluble dyes.
- Q.18 What is general formula of Alkyne?
- Q.19 Lyophobic sols are also called Solvent \_\_\_\_\_  
 (loving/hating)
- Q.20 Acids release \_\_\_\_\_ ion in water. ( $H^+/OH^-$ )

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Differentiate Soaps from detergents?
- Q.22 Write any five properties of Enzyme Catalyst.
- Q.23 Classify cyclic Compounds.
- Q.24 What is protective colloid.

(3) 182631/122631/032631