

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.3 Discuss briefly about characteristics and general application of colloids.

Q.4 Write short note on any 'two'.

- 1) Bronsted lowry concept of Acids and Bases
- 2) Characteristics of catalytic reactions.
- 3) Lewis concept of acids & bases.

Q.5 Discuss briefly about Le-Chatelier's principle. Also give its applications in Industry.

Q.6 What are soaps and detergents? Discuss the cleaning mechanism of soap/detergent.

Q.7 What do you understand by pH? How it is measured? Relation between pH & pOH.

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3rd Sem. / Text Proc / Text. Chem

Subject : Physical & Org. Chemistry

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1
- a) Define Heterogeneous catalysis.
 - b) Define % strength or concentration.
 - c) What is a Positive Catalyst.
 - d) Name any two 'weak' acids.
 - e) Name any two 'weak' alkalies.
 - f) What do you mean by negative catalyst.
 - g) Define Molarity.
 - h) What do you mean by 'chemical equilibrium'?
 - i) Alkenes are _____ hydrocarbons (saturated/unsaturated)

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- j) What is a 'gel'?
- k) What is Equivalent wt of a compound?
- l) _____ No of pH indicates neutral condition.
- m) _____ No of pH values indicate Acidic condition.
- n) _____ No. of pH value indicate Alkaline condition.
- o) Gold No indicates the _____ power of a protective colloid.
- p) Define protective colloid.
- q) What do you mean by empirical formula of a compound?

SECTION-B

Note: Short answer type questions. Attempt any ten parts
10x4=40

- Q.2
- i) Discuss homogenous catalysis with example.
 - ii) Discuss the method of detection of sulphur in organic compounds.
 - iii) Discuss the method of detection of Nitrogen in organic compounds.

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- iv) What are function groups in organic compounds? Name two functional groups.
- v) Discuss briefly about Acid-Base catalysis.
- vi) Discuss briefly about Brownian movement.
- vii) What do you mean by coagulation of colloidal solutions.
- viii) Discuss briefly arrhenius concept of Acids and Bases.
- ix) Give properties and uses of Benzene.
- x) Give properties and uses of carboxylic acids.
- xi) What do you mean by 'Promoters'? Discuss with example.
- xii) Give classification of organic compounds.
- xiii) Give properties and uses of Glycerols.
- xiv) What is le-chatlier principle of chemical equilibrium?
- xv) What do you mean by 'Auto catalysis'? Discuss with examples.

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