B.Voc (NEP) 3rd Semester Exam., 2024

HERBAL PROCESSING TECHNOLOGY

Paper : HPT0300104

(Fundamental Chemistry)

Full Marks : 60

Time : 2½ hours

The figures in the margin indicate full marks for the questions

1. Fill in the blanks/Answer the following : 1×7=7

(a) Carbon always forms _____ bonds.

(b) Common isotope of carbon is _____.

(c) Lime water is _____ (acid/base).
(Choose the correct answer)

(d) Give an example of a strong acid.

(e) How many bonds are there in unsaturated hydrocarbon?

(f) pH of normal water is _____.

(g) Example of a weak acid is _____.

2. Answer the following : 2×4=8

(a) What is Equilibrium?

(b) What is Huckel's rule of Aromaticity?

(c) Write the allotropes of carbon.

(d) Write the names of C_3H_8 and C_3H_6.

3. Answer any *three* of the following : 5×3=15

(a) What is Buffer? Explain with an example.

(b) Write the structure and properties of benzene.

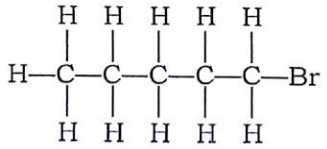
(c) Draw the structure of the following compounds :

(i) 2-methyl-4-ethyl hexane

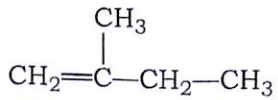
(ii) 3,3-dimethyl butane

(d) Write the IUPAC names of these compounds :

(i)



(ii)



(e) What are the properties of diamond?

4. Answer any *three* of the following : 10×3=30

(a) Write the properties of carbon. Why is carbon so important?

(b) What is pH scale? Explain the calculation of pH values for strong acids and bases.

(c) Explain the Acid-Base Theories. Write the difference between acid and base.

(d) Write the properties of aromaticity.

(e) Discuss the basic glassware used in a laboratory. Write the good lab practices.

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