

S.B. Roll No.....

APPLIED CHEMISTRY-I
1st Exam/Common/6052/Jan'2022
(FOR 2018 BATCH ONWARDS)

Duration: 1.15Hrs.

M.Marks:25

SECTION-A

Q1. Attempt any five questions.

5x3=15

- i. Write the IUPAC names of the following compounds: a) CH_3CHO b) $\text{CH}_2=\text{CH}_2$ c) $\text{CH}_3\text{CH}_2\text{NH}_2$
- ii. What is a functional group?
- iii. State and explain Faraday's first law of electrolysis.
- iv. What is electro-refining?
- v. What do you understand by soft water and hard water?
- vi. Give the characteristics of drinking water.
- vii. Give three disadvantages of hard water.
- viii. What are buffer solutions? Explain various types of buffer solutions.
- ix. Define the terms: a) Solvent b) Molarity c) Normality

SECTION-B

Attempt any one question.

1x10=10

- Q2.** Explain the Ion exchange process for de-ionization of water.
- Q3.** i) Calculate the percentage composition of various elements in CaCO_3 . [Atomic mass of C= 12, Ca= 40 and O= 16] ii) what is pH scale? Explain.
- Q4.** Define and explain the terms:
a) Oxidation b) Reduction c) Redox reaction d) Oxidising agent e) Reducing agent
- Q5.** i) What are the main postulates of Bohr's model of atom?
ii) Discuss the shapes of s and p orbitals.