



Shree H.N.Shukla College of Science

B.Sc. (Sem-IV)(Chemistry)(CBCS)

Paper 401: Chemistry

Unit test-1

Date: 21/04/21

Time: 1.5 hours

[Total- 30 mark]

Q-1(A) Answer the following Questions [5]

- 1) Provide the structure of wittig reagent.
- 2) Give the structure of Benzil.
- 3) Give the name for the reciprocal of Viscosity.
- 4) Define Enantiomers
- 5) Which instrument is used for the determination of the refractive index?

(B) Answer any one of the following Questions [2]

- 1) Explain principle of aldol condensation.
- 2) Explain Molar volume.

(C) Answer any one of the following Questions [3]

- 1) Write reaction and mechanism of Hoffmann degradation.
- 2) Discuss any three examples of surface tension.

(D) Answer any one of the following Questions [5]

- 1) Write reaction and mechanism of Perkin reaction.
- 2) Prove the structure of benzene with the help of Paracheor.

Q-2 (A) Answer the following Questions [5]

- 1) Give examples of sandwich type organo-metallic compounds.
- 2) Clarify three center two electron (3c-2e) bonds.
- 3) Give structure of witting reagent.
- 4) Define Micro or Trace elements with suitable examples.
- 5) Give the name of biomolecules which are responsible as oxygen carriers.

(B) Answer any one of the following Questions [2]

- 1) Discuss the role of Hemoglobin in the biological system.
- 2) How are Grignard reagents used to prepare primary, secondary and tertiary alcohols.

(C) Answer any one of the following Questions [3]

- 1) Explain structure of Trimethyl aluminum.
- 2) Describe toxic effects of mercury.

(D) Answer any one of the following Questions [5]

- 1) Write a short note on chlorophyll and Hemoglobin.
- 2) Explain about metallo-porphyrin and iron porphyrin.
- 3) Explain preparation, structure and bonding in Zeise's salt.