

Mahishadal Raj College

B.Sc.(Hons) Internal Examination 2020

(under CBCS pattern)

Semester - IV

Subject : Chemistry(H)

Paper : CC – 9 (T+P) Inorganic Chemistry

Full marks : 20(T) + 10(P)

Time : 2 hr

Answer any **one question** from each part

Part – A : Inorganic Chemistry(Theory)

1. How diborane is prepared? Discuss the nature of bonding in diborane?
2. Discuss the structure and bonding of S_4N_4 .
3. What is Chelate effect? Discuss with an example. What do you mean by Flexidentate ligand?
4. Draw the structures of all the possible isomers of (i) $[Co(en)_2Cl_2]^+$ (ii) $[CrCl_2(en)(NH_3)_2]^+$
5. What are phosphonitriles and why they are so called? Discuss the structure and bonding in cyclotriphosphazenes.
6. Write short notes on Silicones.

Part – B : Inorganic Chemistry (Practical)

1. Briefly discuss the principle of complexometric EDTA titration, explaining why such titrations are carried out in buffer solutions.
2. What is metal indicator? Explain its indicator action in complexometric EDTA titration.
3. Write down the principle involved in the complexometric estimation of Ca(II) and Mg(II) in a mixture.
4. Why EDTA is a very suitable reagent in complexometric titration? What do you mean by the statement that temporary hardness of a water sample is 6.5 ppm?

send the answer in pdf mode to cc9hons@gmail.com

