

This question paper contains 3 printed pages]

SA—04—2025

FACULTY OF SCIENCE

B.Sc. (Third Year) (Fifth Semester) EXAMINATION

APRIL/MAY, 2025

(CBCS/New Pattern)

CHEMISTRY

Paper-XII

(Organic + Inorganic Chemistry)

(Saturday, 5-4-2025)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (1) Attempt *all* questions.

(2) Figures to the right indicate full marks.

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

(a) Discuss in brief the IUPAC nomenclature of co-ordination compounds with reference to :

(i) Name of negative ligands.

(ii) Order of naming the ligands.

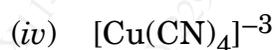
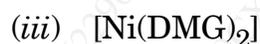
(iii) Naming of co-ordination sphere.

(iv) Name of central metal ion.

(v) Numerical prefixes to indicate number of ligands.

P.T.O.

(b) Give the IUPAC names of the following compounds :



(c) Give the classification of ligands with examples.

(d) Explain the mechanism of action of cis-platin in cancer treatment.

(e) What is Rheumatoid Arthritis (RA) disease ? Give an example of anti-arthritis drugs for treatment.

2. Solve any *three* of the following :

3×5=15

(a) Define Heterocyclic compounds. Explain molecular orbital picture of pyrrole.

(b) What are chemotherapeutic agents ? Explain Antimalarials, Antibacterials, Antifungals and Antituberculars drugs with suitable examples.

(c) Write the structural formula of Vitamin C. Mention its source and diseases caused by its deficiency.

