

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai — 600 044.

B.Sc. END SEMESTER EXAMINATION APRIL/NOV - 2021

SEMESTER - VI

17UCHCT6013 - Inorganic Chemistry - II

| | |
|-------------------------------|-------------------------|
| Total Duration : 3 Hrs | Total Marks : 75 |
| MCQ : 30 Mins | MCQ : 15 |
| Descriptive : 2 Hrs.30 Mins | Descriptive : 60 |

Section B

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. Give the salient features of Werner's co-ordination theory.
2. Explain π bonding in carbonyls.
3. Compare VBT and CFT.
4. Explain the substitution reaction in octahedral complexes.
5. Write the principle and applications of column chromatography.
6. Explain the factors which affect the stability of complexes.
7. Discuss HPLC instrumentation and its applications.
8. Write a short note about electrophoresis.

Section C

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. Discuss the geometrical and optical isomerism in 4 and 6 coordinated complexes.
10. Explain the hybridization and structures of nickel and iron carbonyls.
11. Explain the low spin and high spin crystal field splitting in octahedral systems.
12. What is meant by trans effect? Explain its application in the preparation of coordination complexes.
13. Explain the principle, instrumentation and applications of Gas chromatography.

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