10. (a) (i) What are the factors affecting acid hydrolysis and base hydrolysis? (5)

(ii) Define conjugate mechanism. (5)

Or

(b) (i) Explain with examples of substitution tractions. (5)

(ii) Write about redex reacting and electron transfer reactions. (5)

S.No. 417 **17POC05**

(For the candidates admitted from 2017 – 2018 onwards)

M.Sc. DEGREE EXAMINATION, APRIL/MAY 2018.

Second Semester

Organic Chemistry

INORGANIC CHEMISTRY — II

Time : Three hours Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1. (a) What is menat by 18 electron role?

Or

(b) Define EAN role.

2. (a) What are the principle involved in electronic spectra of coordination compounds?

Or

(b) Explain the selection rules.

3. (a) Give any three structure of coordination compounds with coordination number two.

Or

(b) Write down any three structure of coordination compounds with coordination number three.

4. (a) Give the structure of porphyring and corring.

Or

(b) Explain the structure of crown ethery and crepitates.

5. (a) What are the applications of valence bond and crystal field theoreis?

Or

(b) Write down inner sphere type reacting.

PART B — (5 × 10 = 50 marks)

Answer ALL questions.

6. (a) Explain the failent features of MOT and CFT. (10)

Or

(b) Write note on

(i) Jahn – Teller distortion. (5)

(ii) Spectrochemical series. (5)

7. (a) (i) How to calculate 10DQ and β for V^{3+} and Ni^{2+} octahedral compleary. (5)

(ii) Explain the magnetic properties of coordination continued. (5)

Or

(b) Discuss orgal and tenable a suganodiagram spectra for $Ti^3 + CO^{2+}$. (10)

8. (a) (i) Explain any three structure of complexes with coordination number four. (5)

(ii) Write down the geometry of complexes with coordination number five. (5)

Or

(b) Explain the terms

(i) Steroselectivity (5)

(ii) Chelate rings. (5)

9. (a) (i) Define stability. What are the factors affecting stability. (5)

(ii) How to determine the stability constant of a solution by using polarography. (5)

Or

(b) (i) Explain the stereoisomerisms in inorganic complexes. (5)

(ii) How to determine the stability constant of a solution of by using potentiometry? (5)