

CS/2051

Paper - V
A-Inorganic Chemistry
Sem-VI

5812/MH

Max. Marks : 26 Marks

Min. Pass Marks : 35%

Max. Time : 3 hrs

Candidates are required to attempt two questions (4 marks each) selecting each from section A & B. Section C is compulsory (2 marks each question).

SECTION - A

1. Discuss in detail HSAB principle?
2. How electronegativity is related to hardness and softness of acids and bases?
3. Discuss Hb and Mb and their oxy derivatives. What is their role in transporting oxygen?
4. (a) Discuss essential and trace elements?
(b) Discuss the sources and biological functions of alkali metal?

SECTION - B

5. Discuss preparation, important properties and applications of phosphazenes?
6. Discuss the structure and bonding in triphosphazenes?
7. Write a note on mononuclear carbonyls and homogenous hydrogenation?
8. Give the preparation, properties, applications and structure of organolithium compounds?

SECTION - C

9. (a) Discuss absolute hardness?
(b) Write a note on nitrogen fixation?
(c) Give the uses of silicones?
(d) What do you mean by organometallic compounds and hapticity?
(e) Write a note on metal-ethylene complexes?