

Exam.Code:0009
Sub. Code: 0733

2012
B.A./B.Sc. (Hons.) Fifth Semester
Chemistry
Paper – V: Inorganic Chemistry – A

Time allowed: 3 Hours

Max. Marks: 45

NOTE: Attempt five questions in all, including Question No. IX (Unit-V) which is compulsory and selecting one question each from Unit I-IV.

x-x-x

UNIT – I

- I. What are silicates? Draw and discuss structures of various types of silicates having example of each type. (9)
- II. Write complete notes on the following:-
a) Hetero catenation
b) Intercalation compounds of Graphite (4,5)

UNIT – II

- III. Discuss in detail about carboranes. How Wades rules are applicable for structure classification of carboranes? (9)
- IV. Explain the following:-
a) Phosphorus sulphate cages
b) Phosphazenes (4,5)

UNIT – III

- V. What are the metal carbonyl halides? Discuss in detail their synthesis, structure and reactivity. (9)
- VI. Explain synthesis and reactivity of metal carbonyl hydrides. (9)

UNIT – IV

- VII. Discuss completely the chemistry of Metallocumulenes with help of examples. (9)
- VIII. Explain in detail the chemistry of different alkylidene complexes with examples. (9)

P.T.O.

(2)

UNIT – V

IX. Attempt the following in brief:-

- a) Borazines
- b) One dimensional sulphur-nitrogen conductor
- c) Synthesis of Alkylidyne complexes

(3x3)

x-x-x

C4KNOWLEDGE SEEKERS