

SECTION - D

8. (a) What are Carbides ? Explain covalent carbides. 3
(b) Explain orthosilicates and cyclic silicates with one example each. 3
(c) What are interhalogen compounds ? Why these are more reactive than parent halogen ? 2
9. (a) Discuss the position of Noble gases in periodic table. 3
(b) Discuss structure and bonding of XeO_3 molecule. 3
(c) Why compounds of Noble gases discovered so late ? 2

Roll No.

91533

B. Sc. (Hons.) Chemistry 2nd Sem.
Latest Examination – April, 2018

INORGANIC CHEMISTRY

Paper : 201

Time : Three Hours]

[Maximum Marks : 40

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt five questions in all, selecting one question from each Section. Question No. 1 is compulsory.
All questions carry equal marks.

1. (a) Name the basic radicals of Group II B.
(b) Why sodium is stored under kerosene ?
(c) What is state of hybridization of Xe in XeO_2F_2 ?
(d) What is the basic structural unit of silicates ?
(e) Name two basic radicals which gives flame test.

(f) Complete the reaction :



(g) What is the difference in the structure of White Phosphorous and Black Phosphorous ?

(h) What is Freon ?

1 × 8 = 8

SECTION - A

2. (a) What are Hydrides ? Discuss hydrides of Alkali and Alkaline earth metals. 4

(b) What is diagonal relationship ? What are the conditions for diagonal relationship ? Explain by taking the example of Be and Al. 4

3. (a) What are optimum conditions of precipitation ? 3

(b) Write short note on co-precipitation. 3

(c) Explain the term digestion. 2

SECTION - B

4. (a) Why is H₂S gas passed in acidic medium to precipitate radicals of Group II ? 2

(b) Explain the chemistry of chromyl chloride method to detect chloride ion. 3

91533- (P-4)(Q-9)(18) (2)

(c) How can you detect CO₃²⁻ ion in presence of SO₃²⁻ ion in qualitative analysis ? 3

5. (a) What are interfering radicals ? How and at what stage do they interfere ? Discuss the removal of oxalate ions from mixture. 4

(b) How are the following reagents are used in qualitative analysis : 4

(i) Nessler's reagent

(ii) Yellow ammonium sulphide

SECTION - C

6. (a) Discuss the structure and bonding in Diborane (B₂H₆). 3

(b) Compare the acidic character of the following : 3



(c) How do CaC₂ and Al₄C₃ differ ? 2

7. (a) What are silicones ? Give their properties and uses. 3

(b) Why N(CH₃)₃ is pyramidal but N₁(S₁H₃)₃ is trigonal planar in shape ? 3

(c) H₃PO₃ is dibasic acid. Explain. 2

91533- (P-4)(Q-9)(18) (3)

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