

D 30493

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Name.....

Reg. No.....

**FIFTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION  
NOVEMBER 2022**

Chemistry

CHE 5B 06—INORGANIC CHEMISTRY—III

(2019 Admission onwards)

Time : Two Hours

Maximum : 60 Marks

**Section A (Short Answers)***Answer questions up to 20 marks.**Each question carries 2 marks.*

1. How solubility product principle is effected in the separation of II group and IV group cations ?
2. Mention two advantages of microanalysis.
3. Discuss the structure of XeF<sub>6</sub> molecule.
4. What are interhalogen compounds ?
5. Cyanogen is considered as pseudohalogen. Why ?
6. Explain autoionisation of liquid SO<sub>2</sub> and HF with equations.
7. What are silicates ?
8. What are protic and aprotic solvents ?
9. What are phosphazenes ?
10. Explain the relation between acid rain and pollution.
11. Triple R is important in managing waste. Justify.
12. What is greenhouse effect ?

(Ceiling of marks : 20)

**Section B (Paragraph)***Answer questions up to 30 marks.**Each question carries 5 marks.*

13. What are the optimum conditions for the formation of precipitation process ?
14. Write note on structure of xenon fluorides and their reaction with water.

Turn over

15. Explain the structure and hybridization of  $\text{ClF}_3$  and  $\text{ICl}_3$ .
16. Give an account of preparation properties and structure of  $\text{S}_4\text{N}_4$ .
17. Discuss on hydrometallurgy.
18. What are the different sources of noise and radioactive pollution ?
19. Write a note on energy production from waste.

(Ceiling of marks : 30)

**Section C (Essay)**

*Answer any one questions.*

*Each question carries 10 marks.*

20. Give the name and composition of two ores of Ti. How is titanium extracted from its ore ?
21. Explain the causes and control measures of air pollution.

(1 × 10 = 10 marks)