D 30493 (Pages : 2) 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 XeF6 molecule.

4. What are interhalogen compounds ?

5. Cyanogen is considered as pseudohalogen. Why ?

6. Explain autoionisation of liquid SO_2 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 ClF_3 and ICl_3.

16. Give an account of preparation properties and structure of S_4N_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.

($1 \times 10 = 10$ marks)