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(Pages : 2)

Name.....

Reg. No.....

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CBCSS—UG)

Chemistry

CHE 5B 06—INORGANIC CHEMISTRY—III

(2019 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A

Answer at least **eight** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 24.

1. Name the second group cations. How are they precipitated ?
2. Explain the term co-precipitation and post precipitation.
3. How are XeF_2 and XeF_4 prepared ? Give their structures.
4. What are pseudohalogens ? Give examples.
5. What is the structure and hybridisation of IF_5.
6. Alkali metal in liquid ammonia are coloured. Why ?
7. Define ionizing solvent.
8. Discuss structure of $(SN)_x$.
9. What are phosphazenes ?
10. Mention two measures to control air pollution.
11. Triple R is important term in managing waste. Justify
12. What are different types of e-wastes ?

(8 x 3 = 24 marks)

Turn over

Section B

Answer at least **five** *questions.*
Each question carries 5 *marks.*
All questions can be attended.
Overall Ceiling 25.

13. Explain the term microanalysis with suitable examples and mention the advantages.

14. Discuss the use of Ellingham diagram in extraction of elements. Using the Ellingham diagra oxides, determine whether aluminium can be used to reduce MgO.

15. Explain the structure and hybridization of ClF_3 and ICl_3.

16. How are noble gases isolated and separated ?

17. How silicones are prepared ? Discuss their structure and uses.

18. How can we prevent thermal and radioactive pollution ?

19. Discuss the challenges in managing solid wastes.

(5 × 5 = 25 m

Section C

Answer any **one** *question.*
The question carries 11 *marks.*

20. How is nickel extracted from its ore ?

21. How is quality of drinking water assessed ? Define three water quality parameters.

(1 × 11 = 11 m