0223

tal No. of Questions - 21

tal No. of Printed Pages - 2

Regd. No.

Part - III

CHEMISTRY, Paper - II

(English Version)

me : 3 Hours

Max. Marks : 60

SECTION – A

10×2=20

ote :-

(i) Answer **ALL** Questions.

(ii) Each Question carries **TWO** marks.

(iii) All are very short answer type questions.

1. Define Molarity.
2. State Faraday's First Law of Electrolysis.
3. What is the role of cryolite in the metallurgy of aluminum?
4. Write any two uses of argon.
5. Write 'Spin only' formula to calculate the magnetic moment of transition metal ions.
6. What is PHBV? How is it useful to man?
7. What are non-narcotic analgesics? Give example.
8. What are Tranquilizers? Give example.
9. What is Ziegler-Natta catalyst?
10. Write equations for Carbylamine reaction of any one aliphatic amine.

SECTION – B

6×4=24

Note :-

(i) Answer **ANY SIX** questions.

(ii) Each question carries **FOUR** marks.

(iii) All are of short answer type questions.

11. Derive Bragg's equation.

Vapour pressure of water at 293K is 17.535mm Hg. Calculate the vapour pressure of the solution at 293K when 25g of glucose is dissolved in 450g of water.

What are lyophilic and lyophobic sols? Compare the two terms in terms of stability and reversibility.

Explain the extraction of zinc from zinc blende.

(a) What is tailing of mercury? How is it removed?

(b) How is chlorine manufactured by Deacon's method?

Using IUPAC norms write the formulas for the followings -

(a) Tetrahydroxozincate (II) ion

(b) Hexaamminecobalt (III) sulphate

(c) Potassium tetrachloropalladate (II) and

(d) Potassium tri(oxalato) chromate (III)

What are hormones? Give one example for each -

(a) Steroid hormones

(b) Polypeptide hormones and

(c) Amino acid derivatives

(a) What are Ambident Nucleophiles?

(b) What are Enantiomers?

SECTION – C

ote :- **2×8=16**

(i) Answer **ANY TWO** questions.

(ii) Each question carries **EIGHT** marks.

(iii) All are long answer type questions.

19. Give a detailed account of the collision theory of reaction rates of bimolecular gaseous reactions.

20. How is ammonia manufactured by Haber's process? Explain the reactions of ammonia with -

(a) $ZnSO_{4(aq)}$ (b) $CuSO_{4(aq)}$ (c) $AgCl_{(s)}$

21. With a suitable example write equations for the followings -

(i) Kolbe's reaction (ii) Williamson ether synthesis

(iii) Cannizaro reaction (iv) Decarboxylation
