Intermediate Chemistry Model Paper-2

CHEMISTRY, Paper-II

(English Version)

Time: 3 Hrs. **Max. Marks: 60**

SECTION - A

I. ***Answer ALL the questions.***

10 × 2 = 20 M

1. What are isotonic solutions?
2. What are pseudo first order reactions? Give one example.
3. Give composition of the following alloys.
a) Bronze
b) German silver
4. What is tailing of mercury?
How is it removed?
5. How is XeO_3 prepared? Explain the structure of XeO_3?
6. Calculate the spin only magnetic

of $Fe^{2+}_{(aq)}$ *ion.*

7. What is tincture of iodine? What is its use?
8. What are antacids? Give examples.
9. What is stereochemical result of SN^1 and SN^2 reactions.
10. Write equations showing the conversion of:
i) Acetic acid to Acetyl chloride
ii) Benzoic acid to Benzamide

SECTION - B

II. ***Answer any SIX of the following questions.*** **6 × 4 = 24 M**

11. Derive Bragg's equation.
12. State Raoult's law. Vapour pressure of water at 293K is 17.535 mm Hg. Calculate the vapour pressure of the solution at 293K when 25 g of glucose is dissolved in 450 g of water.
13. Explain the purification of sulphide ore by froth floatation method.
14. What is catalysis? How is catalysis classified? Give two examples for each type of catalysis.
15. Explain Werner's theory of coordination compounds with suitable examples.
16. Give the sources of the following vitamins and name the disease caused by their deficiency?
a) A b) D c) E d) K
17. Write the name and structures of the monomers of the following polymers.
a) Teflon b) Bakelite
c) PVC d) Buna-N
18. Write short notes on:
i) Carbylamine reaction
ii) Sandmeyer reaction

SECTION - C

III. ***Answer any TWO of the following questions.*** ***2×8 = 16 M***

19. a) Give a detailed account of the collsion theory of reaction rates of bimolecular gaseous reactions.
b) State Faradays' first law of electrolysis. A solution of $CuSO_4$ is electrolysed for10 minutes with a current of 1.5 amperes. What is the mass of copper deposited at the cathode?
20. a) How is nitric acid manufactured by Ostwald's process?
b) How is chlorine obtained in the laboratory? How does it react with the following?
i) Excess NH_3 ii) Iron
iii) Hot and conc.NaOH
21. Explain the following reactions.
a) Aldol condensation
b) Cannizaro's reaction
c) Reimer-Tiemann reaction
d) Williamson's Ether synthesis

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