

MS JUNIOR COLLEGE
Hyderabad

GUESS PAPER - 1
INTERMEDIATE 2nd YEAR
CHEMISTRY - II

Time: 3 hours

Max.Marks:60

INSTRUCTIONS:

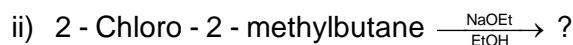
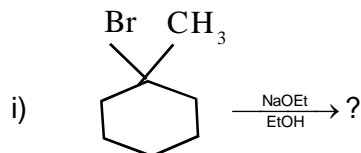
1. Q.Nos: 1 - 10 are Very Short Answer Type. Answer them in about 30 words each. Each question carries 2 marks.
2. Q. Nos: 11 - 18 are Short Answer Type. Answer them in 75 - 100 words each. Each question carries 4 marks.
3. Q.Nos: 19 - 21 are Long Answer Type. Answer them in about 300 words each. Each question carries 8 marks.

I. Answer All Questions: (Very Short Answer Type). [10 × 2 = 20]

1. State Henry's law.
2. Write the Nernst equation for the EMF of the cell Ni(s) / Ni²⁺ (aq) // Ag⁺ (aq) / Ag.
3. What is PDI (Poly dispersity Index)?
4. Write the names of the monomers for the following polymers. (a) Bakelite (b) Glyptal
5. What is mischmetal? Give its composition and uses.
6. A mixture of Ca₃P₂ and CaC₂ is used in making Holme's signal - Explain.
7. Explain the reactions of Cl₂ with NaOH.
8. Give the composition of the following alloys. (a) Bronze (b) German Silver
9. Give the reagents used for the preparation of phenol from chlorobenzene.
10. Arrange the following in increasing order of their basic strength
C₂H₅ NH₂, C₆H₅NH₂, NH₃, C₆H₅CH₂NH₂ and (C₂H₅)₂ NH

II. Answer any Six : (Short Answer Type) [6 × 4 = 24]

11. Calculate the efficiency of packing in case of a metal body centered cubic crystal?
12. A solution of glucose in water is labeled as 10% w/w. What would be the molality of the solution?
13. What are different types of adsorption? Give any four differences between characteristics of these different types.
14. Giving examples to differentiate roasting and calcination.
15. Using IUPAC norms write the systematic names of the following
(i) [Co (NH₃)₆]Cl₃ (ii) [Pt (NH₃)₂ Cl (NH₂ CH₃)] Cl (iii) [Ti (H₂O)₆]³⁺ (iv) [NiCl₄]²⁻
16. Write notes on the following (i) Artificial sweetening agents (ii) Food preservatives
17. Explain the structures of DNA and RNA.
18. Predict the alkenes that would be formed in the following reactions and identify the major alkene



III. Answer any Two : (Long Answer Type) [2 × 8 = 16]

- 19.a) Give the applications of Kohlrausch's law of independent migration of ions.
b) Describe the salient features of the collision theory of reaction rates of bimolecular reactions.
- 20.a) How is ammonia manufactured by Haber's process? Explain the reactions of ammonia with
i) ZnSO_{4(aq)} ii) CuSO_{4(aq)} iii) AgCl_(s)
b) How does Ozone reacts with following ?
i) PbS ii) KI iii) Hg iv) Ag
21. With a suitable example write equations for the following:
i) Kolbe's reaction ii) Reimer-Tiemann reaction
iii) Williamson's ether synthesis (iv) Esterification reaction