

BOARD OF INTERMEDIATE EDUCATION
SENIOR INTER CHEMISTRY
MODEL PAPER (ENGLISH VERSION)

TIME: 3 HOURS

MAX.MARKS: 60

SECTION – A

I. i) Very Short Answer Type questions.

ii) Answer ALL questions.

ii) Each question carries TWO marks.

10 × 2 = 20

1. What is an "ideal solution"?
2. Define "order" and "molecularity" of a reaction.
3. Give the composition of alloys.
a) Brass and b) German Silver
4. H₂S is less acidic than H₂Te. Why?
5. PH₃ has lower boiling point than NH₃. Why?
6. What is the difference between a double salt and a complex compound?
7. What is vulcanization of rubber? Name the cross linking agent used in the manufacture of Tyre rubber?
8. What is "Poly Dispersity Index"? Give the value of PDI for the polymers?
9. what are "ambident nucleophiles"? Give one example.
10. What is "racemic mixture"?

SECTION – B

II. i) Short Answer Type questions.

ii) Answer any SIX questions.

ii) Each question carries FOUR marks.

6 × 4 = 24

11. State 'Raoult's law'. The vapour pressure of pure benzene at a certain temperature is 0.850 bar. A non-volatile, non-electrolyte solid weighing 0.5 g when added to 39 g. of benzene. Vapour pressure of the solution, then, is 0.845 bar. What is the molar mass of the solid substance?
12. Derive Bragg's equation.
13. What are different types of adsorption? Give any 4 differences between characteristics of these types.
14. Explain the extraction of Zinc from Zinc blende ore.
15. Explain Werner's theory of coordination compounds with suitable examples.
16. a) What are "enzymes"?
b) What is "zwitter ion"?
17. a) What are "antiseptics"? Give 2 examples.
b) Which kind of people require "artificial sweetening agents"? Give 2 examples of it.

18. Explain a) Carbylamine reaction.
b) Gatterman reaction.

SECTION – C

III. i) Long Answer Type questions.

ii) Answer any TWO questions.

ii) Each question carries EIGHT marks.

2 × 8 = 16

19. a) What are Galvanic cells? Explain working of Galvanic cell with a neat sketch taking Daniel cell as example.
b) What is the effect of temperature and catalyst on rate of reaction.
20. a) How are XeO_3 and XeOF_4 prepared? Give their structures, types of hybridization.
b) How is Cl_2 prepared by electrolytic method?
Explain its reaction with a) excess of NH_3
b) hot, Conc. NaOH
21. a) Explain i) Cannizzaro reaction ii) Williamson Synthesis
b) Explain the acidic nature of phenols and compare it with that of alcohols.