

## MP Board Class 12 Chemistry Question Paper(Memory Based)

### General Instructions

1. The question paper consists of six sections — Section A to Section F.
2. Time allowed is **3 hours 15 minutes** and the maximum marks are **90**.
3. All questions are compulsory unless otherwise stated.
4. Section A contains Multiple Choice Questions (MCQs). Choose the correct answer from the given options.
5. Section B includes:
  - True/False questions
  - Fill in the blanks
  - Very short answer questions (one or two words)
6. Section C contains short answer type questions.
7. Section D contains long descriptive questions with internal choices.
8. Section E contains long answer questions. Attempt the required number as instructed.
9. Section F consists of Map Work. Mark and label the places correctly on the outline map of India.
10. Figures to the right indicate full marks for each question.
11. Write neatly and draw diagrams wherever necessary.
12. Write answers only in the space provided or as instructed.

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**1. The pressure of solution that just prevents the flow of solvent is called:**

- (A) Vapour Pressure
- (B) Osmotic Pressure
- (C) Partial Pressure
- (D) Gas pressure

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**2. How much charge is required for the 1 mol  $\text{Al}^{3+}$  to Al?**

- (A) 1F
- (B) 2F
- (C) 4F
- (D) 3F

3. For a chemical reaction with rise in temperature by  $10^{\circ}\text{C}$  the rate constant is nearly:

- (A) No change
  - (B) Tripled
  - (C) Doubled
  - (D) Ten time increases
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4. Total number of elements are in d-block is \_\_\_\_\_.

- (A) 39
  - (B) 40
  - (C) 38
  - (D) 36
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5. Acetylation of salicylic acid produces:

- (A) Aspirin
  - (B) DDT
  - (C) Phenol
  - (D) BHC
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6. Calculate the mass percentage of benzene if 22 g of benzene is dissolved in 122 g of carbon tetrachloride.

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7. State Henry's Law regarding the solubility of gases in liquids and mention two daily-life applications.

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8. Describe the Standard Hydrogen Electrode (SHE) with a labeled diagram and its cell reaction.

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9. Differentiate between the Order of Reaction and Molecularity.

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10. Define Specific Conductivity and Cell Constant, including their units.

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11. Why do transition elements (d-block) show variable oxidation states and magnetic properties?

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12. Explain why Scandium ( $Z=21$ ) is a transition element while Zinc ( $Z=30$ ) is not.

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13. What is Lanthanoid Contraction? State its consequences.

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14. Provide chemical equations for reactions such as Aldol Condensation, Cross Aldol Condensation, Wurtz Reaction, Fittig Reaction, and Hoffmann Bromamide Reaction.

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15. Show how to convert substances like Benzene to Aniline or Phthalimide to N-alkyl phthalimide.

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16. Contrast DNA and RNA or Globular and Fibrous Proteins.

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