### CLASS 12



## **RBSE BOARD ZONE** PREVIOUS YEAR QUESTIONS

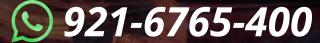
CHAPTER-WISE

# CHEMISTRY

## ALL QUESTIONS OF LAST 12 YEAR'S OF RAJASTHAN BOARD

- Available For Hindi & English Medium
- Questions From 2013-2024
- **RBSE Examination 2024-25**
- Based on Rationalised NCERT 2023-24
- **ALL Repeated Questions Are Mentioned**

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#### 01

#### **Solutions**

1. 5g of NaOH are dissolved in 500 ml water. Find the molarity of the solution. [1M]

(RBSE 2013)

2. 0.2 L of aqueous solution of a protein contains 1.26 g of the protein. The osmotic pressure of such a solution at 300 K is found to be  $2.57 \times 10^{-3}$  bar. Calculate the molar mass of the protein. [R=0.083 L bar mol<sup>-1</sup> K<sup>-1</sup>] [2M]

(RBSE 2013)

- 3. (A)(i) What happens to vapour pressure of water if a tablespoon of sugar is added to it?
  - (ii) Which colligative property is preferred for the molar mass determination of macromolecules?
  - (B) Will the elevation in boiling point be same if 0.1 mole of sodium chloride or 0.1 mole of sugar is dissolved in 1 L of water?
  - (C) Can we separate the compounds of azeotropic mixture by fractional distillation? Explain. [3M]

(RBSE 2014)

4. Osmotic pressure of a solution is 0.0821 atm at a temperature of 400 K. Calculate the concentration of solution in mol/litre. [R=0.0821 L atm K⁻¹ mol⁻¹] [2M]

(RBSE 2015)

5. Write the formula to calculate the molality.

[1M]

(RBSE 2015)

**6.** Write the formula to calculate the mole fraction.

[1M]

(RBSE 2016)

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Chemistry Chapter-wise PYQ

7. What will be the value of Van't Hoff factor for ethanoic acid in benzene?

[1M]

(RBSE 2016)

**8.** What happens when a raw mango placed in concentrated salt solution?

[1M]

(RBSE 2016)

- **9.** (A) Due to low concentration of oxygen in blood, climber become weak and unable to think clear-
  - (i) Write specific name of above condition.
  - (ii) Explain the reason of such condition.
  - (B) 30 gm of ethanoic acid present in 100gm of water, determine molality of ethanoic acid in water.

[1+1=2M]

(RBSE 2016)

**10**. Write definition of osmotic pressure.

[1M]

(RBSE 2018, RBSE 2023, RBSE 2020)

- **11.**(A) Generally solution of gases in liquids is decreases as increasing temperature, Give reasons.
  - (B) How many gram of NaCl is required to make 200mL aqueous solution of 5% (w/v) NaCl. [1+1=2M]

(RBSE 2018)

**12.** The conductivity of 0.10M solution of KCl at 298K is 0.0129 s cm<sup>-1</sup>. Calculate its molar conductivity. [2M]

(RBSE 2019)

**13**. Write definition of azeotropic mixture.

[1M]

(RBSE 2019)

14. Write definition of Osmosis.

(RBSE 2018, RBSE 2023, RBSE 2020)

**15.**Calculate the osmotic pressure of 0.01 M solution of urea at 27 °C temperature. [R=0.0821 L atm K-1 mol-¹] [2M]

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(RBSE 2020)

<b>16.</b> The pair of non-ideal solution exhibiting (A) Methanol + Water	negative deviation from Raoult's law is - (B) Acetone + Ethanol
(C) Methanol + Carbon tetrachle	oride (D) Water + Hydrochloric acid (RBSE 2021)
17.Homogeneous mixture of two or more ch	emical substances is called  (RBSE 2021)
18.250 mL solution is prepared by dissolving Calculate the mass - volume percentage of	g 5.0 g of sodium chloride in water.
carculate the mass votame percentage of	[2M] (RBSE 2021)
<b>19.</b> Explain the reason for exhibiting negative solution of chloroform and acetone.	deviation from Raoult's law by the [1M] (RBSE 2022)
20.Calculate the molarity of 250mL solution f [1.5M]	ormed by dissolving 5g of NaOH in water. (RBSE 2022)
21.1.25g protein is present in 300mL aqueous pressure of such a solution at 300k is foun mass of protein. [R=0.0821 L bar mol-1 K-1]	d to be $2.50 \times 10^{-3}$ bar. Calculate the molar
<b>22.</b> The compound having highest value of Var of solute in aqueous solution is-	a't Hoff factor (i) for complete dissociation [1M]
(A) Kcl	(B) NaCl
(C) K <sub>2</sub> SO <sub>4</sub>	(D) MgSO <sub>4</sub> (RBSE 2023)
<b>23.</b> A 35% (V/V) solution of ethylene glycol is Determine the volume of water in millilitre	

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Chemistry	Chapter-wise PYQ
<b>24.</b> Write definition of osmosis. Write name of method used in desalination	
[1.5M]	(RBSE 2023)
25. The mathematical form of Henry's Law is .	[0.5M]
	(RBSE 2024)
26 The parit of molecular is	[O 5M]
<b>26.</b> The unit of molarity is	[0.5M] (RBSE 2024)
27. Write names of solute and solvent present in sodium amalgam solution.	[1M]
	(RBSE 2024)
28. Define saturated solution.	[1M]
26. Define Saturated Solution.	(RBSE 2024)
29. Calculate the mole fraction of gas A in the solution made on mixing 0.5 m	
and 4.5 moles of gas B.	[1.5M]
	(RBSE 2024)
20.005 males of otherwise acid is disselved in 250 a honzone. Calculate the	malality of the
<b>30.</b> 0.05 moles of ethanoic acid is dissolved in 250 g benzene. Calculate the r solution.	[1.5M]
Solution.	(RBSE 2024)
	(112022021)

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