

## Worksheet: Solutions

Madhya Pradesh State Board · Class 12 · Chemistry · 5 questions · 13 marks

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_ / 13

**Q1.** Calculate the molality of a solution of 10 g glucose ( $M = 180$ ) in 250 g water. [2 marks]

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**Q2.** Calculate the osmotic pressure of 0.1 M glucose solution at 27 C. [2 marks]

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**Q3.** Pure water has vapour pressure 23.76 mm Hg at 25 C. Find the vapour pressure of a solution of 10 g urea ( $M = 60$ ) in 100 g water. [3 marks]

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**Q4.** 0.5 g of a non-electrolyte in 50 g water gives a freezing point of  $-0.186$  C ( $K_f = 1.86$ ). Find the molar mass. [3 marks]

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**Q5.** A 0.1 M KCl solution has  $\Delta T_f = 0.335$  C ( $K_f = 1.86$ ). Find the van't Hoff factor. [3 marks]

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