LAKSHYA (JEE)

Solutions

DPP-05

1. Among the following that forms an ideal solution?
(A) water and methanol
(B) acetone and ethanol
(C) benzene and toluene
(D) water and HCl

2. On mixing 10 mL of acetone with 40 ml of chloroform the total volume of the solution is
(A) < 50 mL
(B) > 50 mL
(C) = 50 mL
(D) cannot be predicted

3. The mixture of *n*-hexane and *n*-heptane is an example of
(A) ideal solution
(B) non-ideal solution
(C) dilute solution
(D) none

4. Which condition is not satisfied by an ideal solution
(A) ΔH mixing = 0
(B) ΔV mixing = 0
(C) ΔS mixing = 0
(D) Obeyance of Raoult's law

5. Among the following, that does not form an ideal solution is:
(A) C_6H_6 and $C_6H_5CH_3$
(B) C_2H_5CI and C_6H_5OH
(C) C_6H_5C1 and C_6H_5Br
(D) C_2H_5Br and C_2H_5I

6. An azeotropic mixture of two liquids has b.p. lower than either of them when it :-
(A) shows a (+ve) deviation from Raoults law
(B) shows no deviation from Raoults law
(C) shows (+ve) deviation from Henry's law
(D) shows (–ve) deviation from Henry's law

7. A solution of acetone in ethanol
(A) shows a positive deviation from Raoult's law
(B) behaves like a near ideal solution
(C) Obeys Raoult's law
(D) shows a negative deviation from Raoult's law

8. Which one is not equal to zero for an ideal solution :-
(A) ΔS_{mix}
(B) ΔV_{mix}
(C) $\Delta P = P_{observed} - P_{Raoult}$
(D) ΔH_{mix}

9. Azeotropic mixture are :
(A) Mixture of two solids
(B) Those which boil at different temperatures
(C) Those which can be fractionally distilled
(D) Constant boiling mixtures

10. An azeotropic mixture of two liquids boil at a lower temperature than either of them when
(A) It is saturated
(B) It does not deviate from Raoult's law
(C) It shows negative deviation from Raoult's law
(D) It shows positive deviation from Raoult's law

ANSWERS

1. **(C)**
2. **(A)**
3. **(A)**
4. **(C)**
5. **(B)**
6. **(A)**
7. **(A)**
8. **(A)**
9. **(D)**
10. **(D)**

***Note* - If you have any query/issue**

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