

Yakeen NEET 2.0 (2026)

Physical Chemistry By Amit Mahajan Sir

Solutions

DPP: 2

- Q1** An aqueous solution of methanol in water has vapour pressure
 (A) Equal to that of water
 (B) Equal to that of methanol
 (C) More than that of water
 (D) Less than that of water
- Q2** Which of the following statement is true for aqueous solution of 0.1 M urea, 0.2 M glucose and 0.3 M sucrose
 (A) The vapour pressure and freezing point are the lowest for urea.
 (B) The Osmotic pressure and boiling point are the lowest for urea
 (C) The depression in freezing point is the highest for urea.
 (D) The elevation in boiling point is the highest for urea
- Q3** The vapour pressure of pure benzene and toluene are 160 and 60 torr respectively. The mole fraction of toluene in vapour phase in contact with equimolar solution of benzene and toluene is
 (A) 0.50 (B) 0.6
 (C) 0.27 (D) 0.73
- Q4** If liquids A and B form an ideal solution, the
 (A) Enthalpy of mixing is zero
 (B) Entropy of mixing is zero
 (C) Free energy of mixing is zero
 (D) Free energy as well as the entropy of mixing are each zero
- Q5** Which one of the following is not correct for an ideal solution?
 (A) It must obey Raoult's law
 (B) $\Delta H_{\text{mix}} = 0$
 (C) $\Delta V_{\text{mix}} = 0$
 (D) $\Delta H_{\text{mix}} = \Delta V_{\text{mix}} \neq 0$
- Q6** Which of the following form an ideal solution?
 (A) Ethyl Bromide + Ethyl iodide
 (B) Ethyl alcohol + Water
 (C) Chloroform + Benzene
 (D) HCl + Water
- Q7** Which of the following liquid pairs shows a positive deviation from Raoult's law?
 (A) Water-hydrochloric acid
 (B) Benzene-methanol
 (C) Water-nitric acid
 (D) Acetone-chloroform
- Q8** An aqueous solution of methanol in water has vapour pressure
 (A) Less than that of water
 (B) More than that of water
 (C) Equal to that of water
 (D) Equal to that of methanol
- Q9** An ideal solution is that which:
 (A) Obey Raoult's law
 (B) Shows positive deviation from Raoult's law
 (C) Shows negative deviation from Raoult's law
 (D) Has no connection with Raoult's law
- Q10**



Which pair from the following will not form an ideal solution

- (A) $\text{CCl}_4 + \text{SiCl}_4$
- (B) $\text{H}_2\text{O} + \text{C}_4\text{H}_9\text{OH}$
- (C) $\text{C}_2\text{H}_5\text{Br} + \text{C}_2\text{H}_5\text{I}$
- (D) $\text{C}_6\text{H}_{14} + \text{C}_7\text{H}_{16}$



Answer Key

Q1 (C)

Q2 (B)

Q3 (C)

Q4 (A)

Q5 (D)

Q6 (A)

Q7 (B)

Q8 (B)

Q9 (A)

Q10 (B)



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