

## **CHEMISTRY**

31. (3)

Vapour pressure is not colligative property.

- 32. (2)
- 33. (1)

Vapour pressure  $\propto \frac{1}{\text{Boiling point}}$ 

When vapour pressure decreases then b.pt. increases.

- 34. (4)
- 35. (2)

Chloroform and acetone form a non-ideal solution, in which A.....B type interaction are more than A......A and B......B type interaction due to H-bonding. Hence, the solution shows, negative deviation from Raoult's Law i.e.,  $\Delta V_{mix} = -ve$ 

$$\Delta H_{mix} = -ve$$

 $\therefore$  total volume of solution = less than (30 + 50 mL) or <80 mL

- 36. (1)
- 37. (2)

In the osmosis solvent molecule move from lower concentration to higher concentration.

38. (2)

$$\pi = CRT$$

$$\pi = \frac{w \times R \times T}{mV} = \frac{68.4 \times 0.0821 \times 273}{342}$$

$$= 4.48 \text{ atm}$$

39. (4)

$$m = \frac{K_b \times w \times 1000}{\Delta T_b \times W}$$
$$= \frac{2.16 \times 0.15 \times 1000}{0.216 \times 15} = 100$$

40. (2)

$$\Delta T_b = K_b \times m \text{ or } K_b = \frac{\Delta T_b}{m}$$

