

# LAKSHYA (JEE)

## Solution

**DPP-03**

- Pressure cooker reduces cooking time because :
  - the heat is more evenly distributed inside the cooker
  - a large flame is used
  - boiling point of water is elevated
  - whole matter is converted into steam
- An aqueous solution of methanol in water has vapour pressure:
  - less than that of water
  - equal to that of water
  - more than that of water
  - equal to that of methanol
- An aqueous solutions is 1 molal in KI. Which change will cause the vapour pressure of the solution to increase?
  - Addition of NaCl
  - Addition of  $\text{Na}_2\text{SO}_4$
  - Addition of 1 molal KI
  - Addition of water
- Vapour pressure increases with increase in:
  - concentration of solution containing non-volatile solute
  - temperature upto boiling point
  - temperature upto triple point
  - altitude of the concerned place of boiling
- For a non-volatile solute:
  - vapour pressure of solute is zero pressure of pure solvent
  - vapour pressure of solution  $\neq$  vapour pressure of solvent in solution
  - all of the above
- (A) In a pressure cooker, the water is Brought to boil. The cooker is then removed from the stove. Now on removing the lid of pressure cooker, the water starts boiling again.
  - The impurities in water bring down its boiling point.
  - If both (A) and (R) are correct and (R) is the correct explanation for (A)
  - If both (A) and (R) are correct but (R) is not the correct explanation for (A).
  - If (A) is correct but (R) is incorrect.
  - If (A) is incorrect but (R) is correct
- (A) An increase in surface area increases the rate of evaporation
  - Stronger the inter-molecular attractive forces, faster is the rate of evaporation at a given temperature.
  - If both (A) and (R) are correct and (R) is the correct explanation for (A)
  - If both (A) and (R) are correct but (R) is not the correct explanation for (A).
  - If (A) is correct but (R) is incorrect.
  - If (A) is incorrect but (R) is correct
- Among 0.1 M solutions of urea,  $\text{Na}_3\text{PO}_4$  and  $\text{Al}_2(\text{SO}_4)_3$  :-
  - The vapour pressure is lowest for urea
  - The vapour pressure is highest for urea
  - Both (A) and (B)
  - None
- Which of the following factor affecting the vapour pressure
  - Nature of liquid
  - vapour pressure of solution = vapour pressure of pure solvent
  - Temperature
  - Both (A) and (B)
  - None
- Vapour pressure depend on :-
  - IMF (inter molecular force)
  - Viscosity
  - Both (A) and (B)
  - None

**ANSWERS**

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



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

Mail us at [support@physicswallah.org](mailto:support@physicswallah.org)



---

[support@physicswallah.org](mailto:support@physicswallah.org)