CHEMISTRY CLASS 12 BATCH
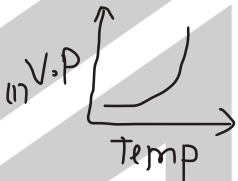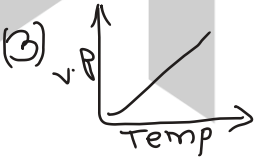
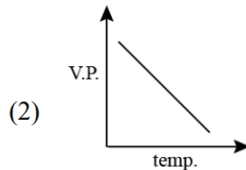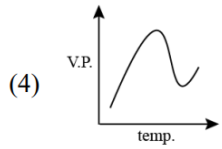## SOLUTIONS

1. At Vapour pressure
   (1)(rate)evaporation = (rate)condensation
   (2) (rate)evaporation > (rate)condensation
   (3) (rate)evaporation < (rate)condensation
   (4) None of the above

2. Vapour pressure is achieved in
   (1) open container   (2) closed container
   (3) both (1) & (2)   (4) none of these

3. At vapour pressure
   (1) forward change is favoured
   (2) backward change is favoured
   (3) both forward & backward changes are favoured
      but with equal rate
   (4) none of these

4. Among the following, which has highest boiling point?
   (1) Water   (2) Ethyl alcohol
   (3) Acetone   (4) Chloroform

5. The factor which do not affect vapour pressure is
   (1) forces between liquid molecules
   (2) temperature
   (3) dry air
   (4) volatile solute

6. Change in surface area has following effect on vapour pressure
   (1) increases
   (2) decreases
   (3) do not affects vapour pressure
   (4) none of the above

7. The vapour pressure of ethanol is 115 torr at 34.9°C. if ΔHvap of ethanol is 38.6 kJ/mol. Calculate the temp. (°C) when then vapour pressure is 760 torr. (1) 69°C (2) 89°C (3) 99°C (4) 79°C

8. A container having liquid in equilibrium with its vapour has volume of 10 L. If the volume of container is reduced to 5 L, the vapour pressure (consider constant temperature)
   (1) is reduced by 50%   (2) is increased by 50%
   (3) remain constant   (4) none of these

9. If vapour pressure of 10 gram of a liquid solution is 'P', then what is the vapour pressure of 5 gram of same liquid solution?
   (1) P   (2) 2P
   (3) P/2   (4) none of these

10. The correct relationship of vapour pressure and temperature is given by

11. Which of the following is not a binary solution?
   (1) Pure water + Sugar
   (2) Air
   (3) Mixture of benzene and toluene
   (4) Mixture of ethanol and methanol

12. A tank contains 5 moles of oxygen, 2 moles of nitrogen and 20g of hydrogen at room temperature. Find the mole fraction of hydrogen.
   (1) 5/17   (2) 2/15
   (3) 8/15   (4) 10/17

13. An aqueous solution of ethanol contains 23g of ethanol dissolved in 90g of water. Find mole fraction of ethanol in the solution.
   (1) 3/4   (2) 3/5
   (3) 2/7   (4) 1/11