

# NEW STANDARD ACADEMY

SEMRI KOTHI SUPER MARKET, RAEBARELI  
CLASS 9 DPP (CHEMISTRY)

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1. A) Convert the following in Celsius:
  - i) 373K
  - ii) 400KB) Write three features of solid state of matter.  
c) Explain in brief any three factors that affect rate of evaporation?
2. What is dry ice?
3. A) Define matter and write its three states.  
B) Explain how these states of matter arise due to variation in the characteristics of the particles.
4. A substance A has high compressibility and can be easily liquefied. It can take the shape of any container. Predict the nature of the substance. Enlist four properties of this state of matter.
5. State the SI unit of temperature. Mention the boiling point of water and average human body temperature in SI unit.
6. Describe an activity to show that air contains water vapors.
7. Give reasons for the following:
  - A) Camphor disappears if kept in open air for a few days.
  - B) We cloths do not dry easily on a rainy days.
  - C) We sweat more on humid days.
8. What is evaporation? Given the detailed explanation of factors affecting the evaporation.
9. A) What is meant by the word 'Latent' in latent heat?  
B) Explain with example of water:
  - i) Latent heat of fusion, and
  - ii) Latent heat of vaporization
10. A) Define diffusion. Explain the rate of order of diffusion in solids, liquids and gases  
B) State the effect of temperature on diffusion

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CLASS 10 DPP (CHEMISTRY)

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1. State the kind of chemical reactions in the following examples in terms of loss and gain of energy:
  - i) Digestion of food in stomach
  - ii) Combustion of coal in air
  - iii) Heating of limestone.
2. A solution of substance 'X' is used for testing carbon dioxide. Write the equation of the reaction of X with carbon dioxide. (b) How is X obtained? Write chemical equation.
3. A) Explain the term "rancidity" Name the type of chemical reaction responsible for causing rancidity and define it.  
B) Write three methods for preventing rancidity of food.
4. A) List any three observations that determine that a chemical reaction has taken place. Also list three information's that cannot be obtained about a chemical reaction, merely by its chemical equation.  
B) Balance the following chemical equations.
  - i)  $\text{Fe} + \text{H}_2\text{O} \longrightarrow \text{Fe}_3\text{O}_4 + \text{H}_2$
  - ii)  $\text{CO}_2 + \text{H}_2\text{O} \longrightarrow \text{C}_6\text{H}_{12}\text{O}_6 + \text{O}_2$
5. A zinc rod is left for nearly 20 minutes in a Copper Sulphate solution. What change would you observe in the zinc rod
6. Name two salts that are used in black and white photography.
7. If you collect silver coins and copper coins you may have seen that after some days a black coating forms on silver coins and a green coating on copper coins. Which Chemical phenomenon is responsible for these coating? Write the chemical name of the blank and green coatings.
8. Identify the compound oxidized in the following reaction.  
 $\text{H}_2\text{S}(\text{g}) + \text{Cl}_2 \longrightarrow \text{S}(\text{s}) + 2\text{HCl}(\text{g})$
9. A teacher took a few crystals of sugar in a dry test tube and heated the test tube over a flame. The colour of sugar turned black. Explain why?
10. What do you understand by precipitation reaction? Explain with suitable Examples.