9. It is difficult to burn a heap of green leaves but dry leaves catch fire easily. Explain.
Answer:
Green leaves have a lot of moisture in them. This moisture does not allow them to catch fire easily. However, dry leaves have no moisturein them. Therefore, they catch fire easily.

10. Which zone of a flame does a goldsmith use for melting gold and silver and why?
Answer:
A goldsmith uses the outer part of the candle flame for melting gold and silver because in this zone the temperature is the highest which helps to melt these metals easily.

11. In an experiment 4.5 kg of a fuel was completely burnt. The heat produced was measured to be 180,000 kJ. Calculate the calorific value of the fuel.
Answer:
The calorific value of fuel is the amount of heat produced by the complete combustion of 1 kg of fuel.
Now,
Heat produced by 4.5 kg of fuel = 180000 kJTherefore, heat produced by 1Kg of fuel = 180000/4.5 = 1KJ/Kg
= 40,000 kJ/kg
Hence, the calorific value of the fuel is 40,000 kJ/kg.

12. Can the process of rusting be called combustion? Discuss.
Answer:
Combustion is a chemical process in which a substance reacts with oxygen and gives out energy during the process in the form of either heat or light or both. Rusting of iron is an exothermic process as heat is released during rusting. Hence, it is a kind of slow combustion.

13. Abida and Ramesh were doing an experiment in which water was to be heated in a beaker. Abida kept the beaker near the wick in the yellow part of the candle flame. Ramesh kept the beaker in the
outermost part of the flame. Whose water will get heated in a shorter time?
Answer:
The water in the Ramesh's beaker will heat up in a shorter time. This is because the outermost zone of a flame is the hottest zone, while the yellow zone (in which Abida had kept the beaker) is less hot.

********** END **********