

Name: _____ Date: _____

Combustion and Flame

Q1. What does a fire brigade do when it arrives at a place where a building is on fire?

Ans. _____

Q2. 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?

Ans. _____

Q3. Can the process of rusting be called combustion? Discuss.

Ans. _____

Q4. What are the characteristics of an ideal fuel?

Ans. _____

Combustion and Flame

Q1. What does a fire brigade do when it arrives at a place where a building is on fire?

Ans. It pours water on the fire. Water cools the combustible material so that its temperature is brought below its ignition temperature. This prevents the fire from spreading. Water vapours also surround the combustible material, helping in cutting off the supply of air. So, the fire is extinguished.

Q2. 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?

Ans. The water in the Ramesh's beaker will heat up in shorter time. This is because outermost part of the flame is the hottest part of the flame whereas the yellow zone of the flame (the middle zone of a flame or luminous zone) in which Abida kept the beaker produces moderate temperature.

Q3. Can the process of rusting be called combustion? Discuss.

Ans. A chemical process in which a substance reacts with oxygen to give off heat is called combustion. The rust is formed when iron slowly combines with the oxygen present in air (in the presence of moisture) to form iron oxide. The process of rusting of iron is a slow combustion and liberates very little heat but no light.

Q4. What are the characteristics of an ideal fuel?

Ans. Characteristics of an ideal fuel

- i. An ideal fuel is cheap, readily available, readily combustible and easy to transport.
- ii. It has high calorific value.
- iii. It does not produce gases or residues that pollute the environment.