

Long Answer Questions

Q. 1. Manu was heating oil to fry potato chips. The cooking oil all of a sudden caught fire; he poured water to extinguish the fire. Do you think this action was suitable? If yes, why? If not, why not? In such a condition what should Manu have done?

[NCERT Exemplar]

Ans. No. Because water is not suitable for fires involving oil. Manu should have switched off the flame of the burner and put a lid on the frying pan. By doing this the contact between fuel and oxygen is cut off and the flame will go off.

Q. 2. What are the three essential requirements to produce fire? How fire extinguisher is useful for controlling the fire? **[NCERT Exemplar]**

Ans. Three essential requirements are:

- a. Fuel
- b. Air
- c. Heat to acquire the ignition temperature

A fire extinguisher is useful in controlling the fire in the following ways:

- a. It cools all the burning substances to a temperature below its ignition temperature.
- b. It cuts off the supporter of the burning substance, i.e., oxygen from the combustible substance.

Q. 3. Give two examples each for a solid, liquid and gaseous fuel alongwith some important uses. **[NCERT Exemplar]**

Ans. Types of fuels

Solid fuel – Coal, wood, etc.
Liquid fuel – Kerosene oil, petrol, etc.
Gaseous fuel – CNG, LPG, etc.

Uses

Coal – Cooking, etc.
Kerosene oil – Fuel for stoves, lamps, etc.
LPG – Fuel for industry, etc.

Q. 4. The calorific values of petrol and CNG are 45000 kJ/kg and 50000 kJ/kg, respectively. If you have vehicle which can run on petrol as well as CNG, which fuel will you prefer and why? **[NCERT Exemplar]**

Ans. We will prefer CNG to run the vehicle. This is because the calorific value of CNG is higher than that of petrol. Therefore CNG will be more economical. At the same time it produces the least air pollutants. Thus, it causes less pollution than petrol.

Q. 5. Forest fire produces a lot of air pollution. Write in brief about the reasons of forest fires.
[NCERT Exemplar]

Ans. a. At high temperature, sometimes dry grass catches fire which spreads throughout the forest.

b. Campfire may also be a reason.

c. Human negligence can also cause forest fires. A lighted cigarette left in the forest can also ignite a forest fire.

d. Lightning.