

CBSE NCERT Solutions for Class 8 Science Chapter 5

Back of Chapter Questions

1. What are the benefits of using CNG and LPG over other fuels?

Solution:

The advantages of using compressed natural gas (CNG) and liquified petroleum gas (LPG) as fuels over others are:

- (i) They can be easily burnt.
 - (ii) Their transportation is easier and they can be transported through pipelines.
 - (iii) They do not give out smoke when burnt and are called Clean Fuels.
 - (iv) They have high calorific value.
2. Name the petroleum product used for surfacing of roads.

Solution:

Bitumen is a petroleum product which is used for surfacing of roads.

3. Describe how coal is formed from dead vegetation. What is this process called?

Solution:

Millions of years ago, dense forests got buried under the soil due to natural processes like storms, floods, and earthquakes. These dense forests got compressed as more and more soil got deposited over them. Under high pressure and high temperature due to the layers of soil, dead plants got slowly converted to coal. This process of formation of coal from dead vegetation is called carbonization.

4. Fill in the banks.

- (a) Fossil fuels are _____, _____ and _____.
- (b) Process of separation of different constituents from petroleum is called _____.
- (c) Least polluting fuel for vehicles is _____.

Solution:

- (a) coal, petroleum, natural gas.
Fossil fuels are coal, petroleum and natural gas.
- (b) Refining.
Process of separation of different constituents from petroleum is called refining.

- (c) compressed natural gas (CNG).

As CNG doesn't produce smoke on burning it is the least polluting fuel for vehicles.

5. Tick True/False against the following statements.

- (a) Fossil fuels can be made in the laboratory. (T / F)
(b) CNG is more polluting fuel than petrol. (T / F)
(c) Coke is almost pure form of carbon. (T / F)
(d) Coal tar is a mixture of various substances. (T / F)
(e) Kerosene is not a fossil fuel. (T / F)

Solution:

- (a) False

Fossil fuels are produced due to high pressure and temperature on dead animals and plants. The process takes a long time- it happens over millions of years. It is therefore not possible to produce fossil fuels in laboratories.

- (b) False

CNG does not produce smoke when burnt and thus is a less polluting fuel than petrol.

- (c) True

Coke is an almost pure form of carbon.

- (d) True

Coal tar is a mixture of about 200 different types of substances.

- (e) False

Kerosene is a fossil fuel which is obtained from the refining of petroleum.

6. Explain why fossil fuels are exhaustible natural resources.

Solution:

Fossil fuels require millions of years to form from the dead plants and animals that get buried deep inside the earth. They require high temperature and pressure for their formation- conditions which cannot be provided in the laboratory. Further, their rate of formation is very slow in comparison to their rate of consumption, so they will get exhausted in the near future due to the current rate of consumption.

7. Describe characteristics and uses of coke.

Solution:

Characteristics of coke are:

- (i) Coke is hard in nature
- (ii) Coke is porous in nature
- (iii) Coke is black in colour

Uses of coke:

- (i) It is used in the manufacture of steel.
- (ii) It is used as a reducing agent in the extraction of metals.

8. Explain the process of formation of petroleum.

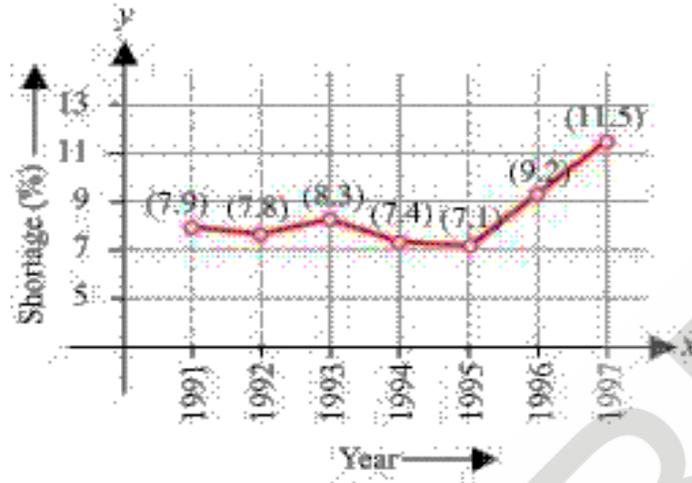
Solution:

Petroleum was formed from dead organisms that got buried in the sea millions of years ago. These dead bodies got covered with layers of sand and clay. Lack of air, high temperature, and high pressure transformed these dead organisms into petroleum and natural gas.

9. The following table shows the total power shortage in India from 1991-1997. Show the data in the form of a graph. Plot shortage percentage for the years on the Y-axis and the year on the X-axis.

S.No	Year	Shortage (%)
1	1991	7.9
2	1992	7.8
3	1993	8.3
4	1994	7.4
5	1995	7.1
6	1996	9.2
7	1997	11.5

Solution:



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