

## CHAPTER - 5

### COAL AND PETROLEUM

**Natural Resources:** Resources which from nature are called natural resources. Examples: coal, petroleum, air, water, soil, etc.

In the light of the availability of various resources in nature, natural resources can be broadly classified into two kinds:

- **Inexhaustible Natural Resources:** Some natural resources are available in huge quantity and cannot be finished by human activities. Such resources are called inexhaustible natural resources, e.g. air, water, sunlight, etc.
- **Exhaustible Natural Resources:** Some natural resources are available in limited quantity and can be finished by human activities. Such resources are called exhaustible natural resources, e.g. coal, petroleum, minerals, etc.

**Fossil Fuels:** Some exhaustible natural resources like coal, petroleum and natural gas. These were formed from the dead remains of living organisms (fossils). So, these are all known as fossil fuels.

### COAL

Coal is a fossil fuel. It is hard as stone, black in colour and is mainly composed of carbon.

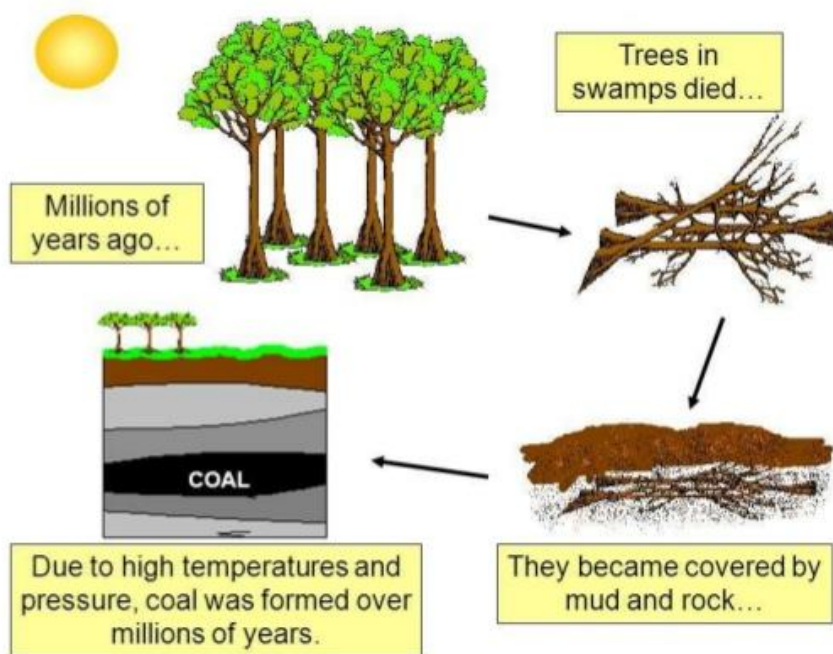
Coal is one of the fuels used to cook food. Earlier, it was used in railway engines to produce steam to run the engine. It is also used in thermal power plants to produce electricity. Coal is also used as a fuel in various industries.



#### Formation of Coal:

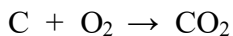
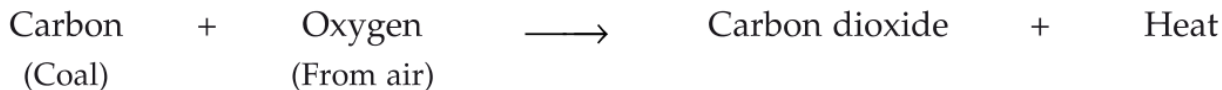
- There were dense forests in low lying areas on earth; about 300 million years ago.
- Those forests got buried under the soil due to natural processes.
- More layers of soil were deposited on these buried forests in due course of time.
- Those plants were converted into coal due to intense pressure and heat inside the earth.

**Carbonisation:** The process of conversion of vegetation into coal is called carbonization. The buried plants underwent carbonization and changed into coal.

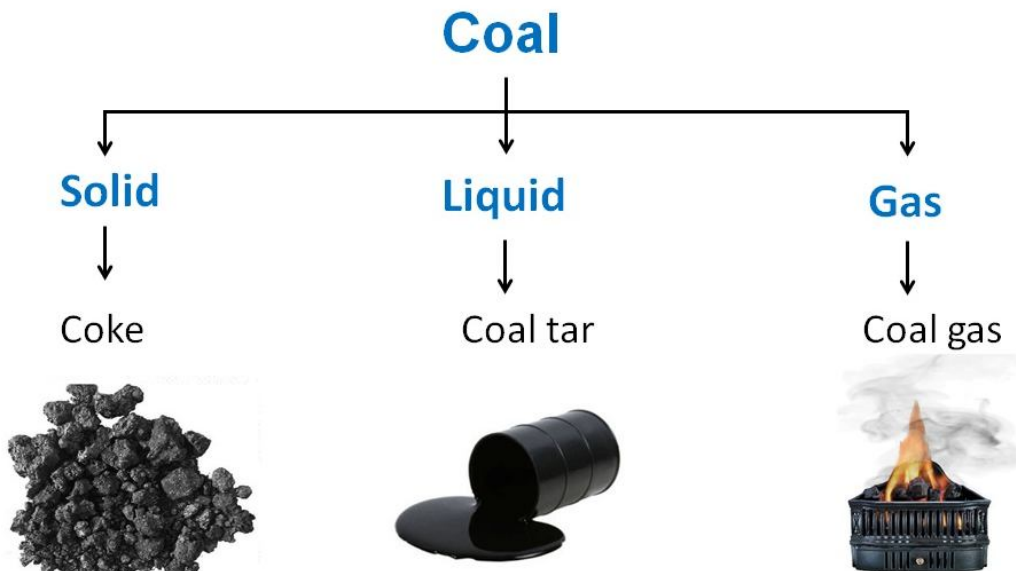


### USES OF COAL

Coal burns in air to produce heat and carbon dioxide. Coal is used as fuel because it provides high amount of heat.



- Coal was used as fuel in steam engines.
- Most of the thermal power plants still use coal as fuel.
- Coal is still being used as kitchen fuel in some households, dhabas and restaurants.
- Many useful products; like coke, coal tar and coal gas; are made by processing coal.



**Coke:** Coke is almost pure form of carbon, is tough, porous and black. Coke is used in manufacture of steel and extraction of many metals.

**Coal Tar:** It is a black thick liquid with an unpleasant smell. Coal tar is a mixture of about 200 substances. It is used as raw material for making various items; like synthetic dyes, drugs, explosives, perfumes, plastics, paints, photographic materials, roofing materials, naphthalene balls, etc. It is used for making the surface of roads. Bitumen (a petroleum product) has almost replaced coal tar for making road surface.

**Coal Gas:** Coal gas is produced during processing of coke from coal. Coal gas is used as fuel in many industries which are situated near coal mines.

## PETROLEUM

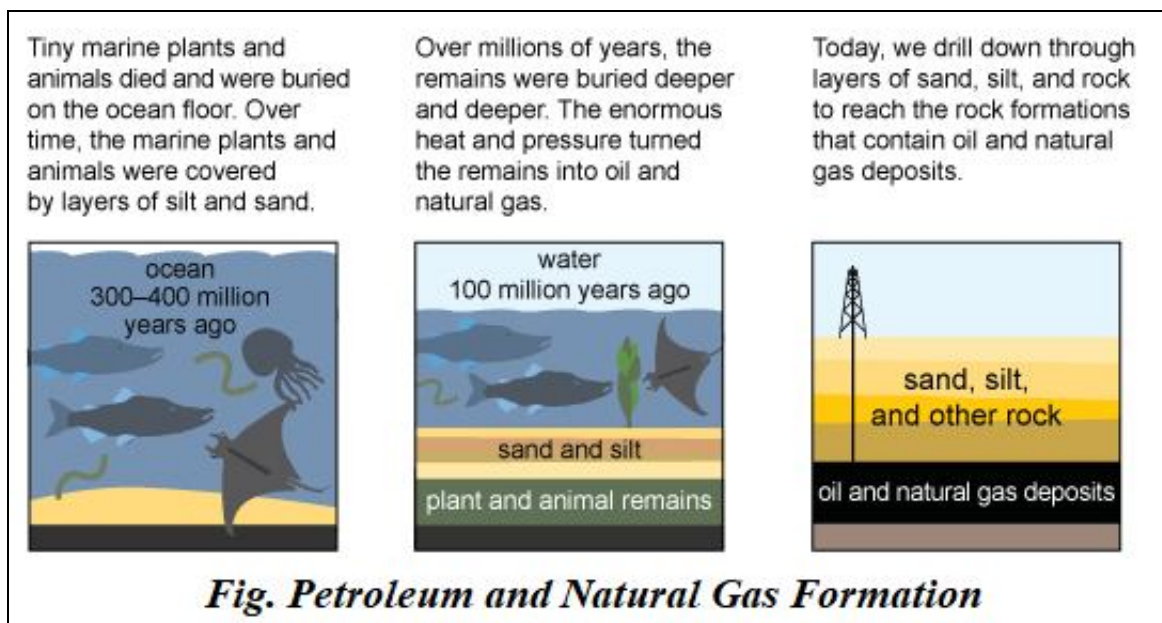
Petrol is a fuel which is used in automobiles. It is obtained from petroleum.

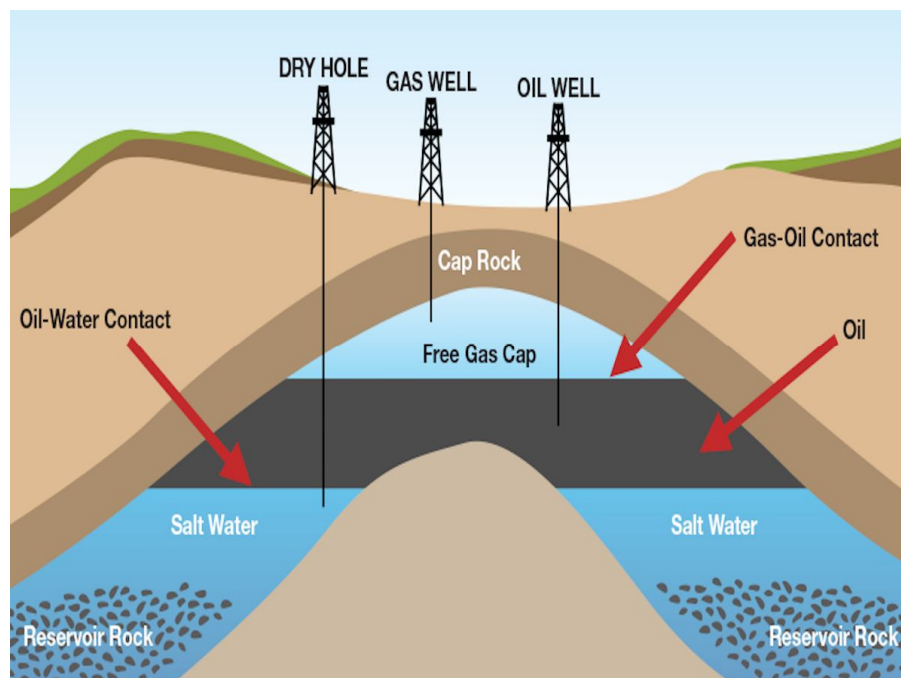
**Petroleum:** Petroleum is a dark and viscous liquid with unpleasant smell. It comes from oil wells.

### Formation of Petroleum

- Organisms which lived in the seas and ocean; millions of years ago; got buried under sand and clay.
- Those organisms got converted into petroleum and natural gas; due to high pressure and high temperature, and due to lack of oxygen.

Millions to hundreds of millions of years ago and over long periods of time, the remains of plants and animals (such as diatoms) built up in thick layers on the earth's surface and ocean floors, sometimes mixed with sand, silt, and calcium carbonate. Over time, these layers were buried under sand, silt, and rock. Pressure and heat changed some of this carbon and hydrogen-rich material into coal, some into oil (petroleum), and some into natural gas.





## Refining of Petroleum

Crude oil is not very useful rather it needs to be refined to obtain useful products. Petroleum; from oil wells; is sent to oil refineries for processing. Petroleum is subjected to fractional distillation; in oil refinery. Various constituents of petroleum get separated during this process. The following table shows the constituents of petroleum and their uses.

Constituent of petroleum	Uses
Liquefied Petroleum Gas (LPG)	Fuel for home and industry.
Petrol	Motor fuel, aviation fuel, solvent for dry cleaning.
Kerosene	Fuel for stoves, lamps and jet aircrafts.
Diesel	Fuel for heavy motor vehicles, generator and rail engine
Lubricating oil	Lubrication
Paraffin wax	Ointment, candle, Vaseline, etc.
Bitumen	Paint, road surfacing

## **NATURAL GAS:**

Natural gas is found along with petroleum in oil wells. Natural gas is used as fuel and as raw materials for making fertilizers. For being used as fuel, natural gas is stored under high pressure. Natural gas which is stored under high pressure is called Compressed Natural Gas (CNG). It is a cleaner fuel than petrol or diesel.

Natural gas is supplied from oil wells to different locations through a network of pipelines. The **HVJ (Hazira – Vijaipur – Jagdishpur) Pipeline** is an important network of pipelines to supply natural gas. It starts from Gujarat (Hazira) and ends in Uttar Pradesh (Jadishpur).

Natural gas is also used as a starting material for the manufacture of a number of chemicals and fertilisers. India has vast reserves of natural gas. In our country, natural gas has been found in Tripura, Rajasthan, Maharashtra and in the Krishna Godavari delta.

## Drawbacks of Fossil Fuels:

- They are exhaustible resources, and will be finished in the near future.
- Burning of fossil fuels adds carbon dioxide to the atmosphere. Thus, fossil fuel causes environmental pollution.
- Excess level of carbon dioxide in the atmosphere creates global warming.

## PCRA (Petroleum Conservation Research Association) recommendations for conservation of petrol and diesel:

In India, the Petroleum Conservation Research Association (PCRA) advises people how to save petrol/diesel while driving. Their tips are:

- Drive at constant and moderate speed as far as possible,
- Switch off the engine at traffic lights or at a place where you have to wait,
- Ensure correct tyre pressure, and
- Ensure regular maintenance of the vehicle.

## NCERT EXERCISE QUESTIONS AND ANSWERS

**1:** What are the advantages of using CNG and LPG as fuels?

**Answer:** Following are the advantages of using CNG and LPG as fuels:

- They are more efficient.
- They can be easily transported; either in cylinders or through pipelines.
- They are less polluting than other fossil fuels.

**2:** Name the petroleum product used for surfacing of roads.

**Answer:** Bitumen

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

**Answer:** Dead remains of plants got buried under the earth millions of years ago. Due to intense heat and pressure inside the earth they got converted into coal. The process of conversion of dead remains of plants into coal is called carbonization.

**4:** Fill in the blanks:

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

**Answer:** (a) coal, petroleum, natural gas, (b) Refining, (c) CNG

**5:** Tick True/False against the following statements:

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

**Answer:** (a) F, (b) F, (c) T, (d) T, (e) F

**6:** Explain why fossil fuels are exhaustible natural resources.

**Answer:** It takes millions of years for the formation of fossil fuels. The rate at which we are using them is very fast compared to the rate of their formation. Due to this, fossil fuels are exhaustible in nature.

**7:** Describe characteristics and uses of coke.

**Answer:** Coke is a type of coal. It is a tough, porous and black substance. It is almost pure form of carbon. Coke burns much cleaner than coal and provides more energy for comparable mass. It is used in manufacture of steel and in extraction of many minerals.

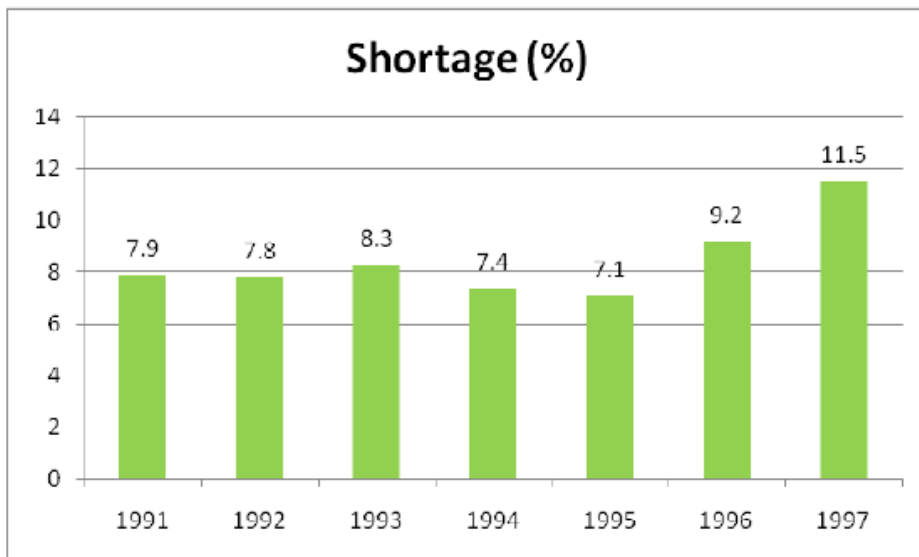
**8:** Explain the process of formation of petroleum.

**Answer:** The organisms which lived in the sea got buried at the bottom of oceans. Over a period of time, their dead bodies were covered with sediments. Intense pressure and heat under the earth's layers transformed these organisms into petroleum.

**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

Answer:



## QUESTION BANK (SET 01)

1. Which of these is almost pure form of carbon?

- (a) Coal
- (b) Coke
- (c) Coal Tar
- (d) Bitumen

Answer: (b) Coke

2. What should be the minimum age for the remains of organism to be categorized as fossil?

- (a) 100 years
- (b) 1,000 years
- (c) 10,000 years
- (d) 100,000 years

Answer: (c) 10,000 years

3. The HVJ pipeline starts from which state?

- (a) Gujarat
- (b) Madhya Pradesh
- (c) Haryana
- (d) Uttar Pradesh

Answer: (a) Gujarat

4. Which of the following areas has recently shown good reserves of natural gas?

- (a) Krishna Godavari Delta
- (b) Cauvery Delta
- (c) Sunderbans Delta
- (d) Bay of Bengal

Answer: (a) Krishna Godavari Delta

5. Which substance is used for making candles?

- (a) Petrol
- (b) Paraffin wax
- (c) Lubricating oil
- (d) Kerosene

Answer: (b) Paraffin wax

6. Which gas; obtained from natural gas; is used for manufacturing urea?

- (a) Carbon dioxide
- (b) Nitrogen
- (c) Hydrogen
- (d) Oxygen

Answer: (c) Hydrogen

### VERY SHORT ANSWER TYPE QUESTIONS

7. Name three useful products of coal.

Answer:

The three useful products of coal are following:

Coke: It is a tough, porous and black substance. It is almost pure form of carbon.

Coal tar: It is a mixture of about 200 substances. It is a black, thick liquid with unpleasant smell.

Coal gas: It is obtained during the processing of coal to get coke.

8. Which product of coal is used as a reducing agent in the extraction of metals?

Answer:

Coke is used as a reducing agent in the extraction of metals. It is used in the manufacture of steel and in the extraction of many metals.

9. Name the process by which plant material (or vegetation) buried deep under the earth was slowly converted into coal.

Answer:

Carbonisation is the process by which plant material or vegetation buried deep under the earth was slowly converted into coal. Since, coal was formed from the remains of vegetation, it is also known as fossil fuel.

10. Name the product of coal which is thick black liquid having an unpleasant smell.

Answer:

Coal tar is the product of coal which is a thick black liquid having an unpleasant smell. It is a mixture of about 200 substances.

11. Name any five substances used in everyday life which are manufactured starting from the products of coal tar.

Answer:

Substances used in everyday life which are manufactured starting from the products of coal tar are following:

Synthetic dyes, drugs, perfumes, plastics and paints. Naphthalene balls used to repel moths and other insects are also obtained from coal tar.

12. Name an important source from which naphthalene balls are obtained.

Answer:

Naphthalene balls used to repel moths and other insects are obtained from coal tar.

13. Which substance is used for metalling the roads these days in place of coal tar?

Answer:

Bitumen, a petroleum product, is used in place of coal-tar for metalling the roads.

14. Name the most common fuel used in light motor vehicles.

Answer:

Petrol is used as a fuel in light motor vehicles such as motor cycles, scooters and cars.

15. Name the fuel which is used in jet aircraft engines.

Answer:

Kerosene is used as fuel in jet aircraft engines.

16. Name the petroleum product used to drive heavy vehicles.

Answer:

Diesel is used as a fuel for heavy motor vehicles and electric generators.

17. Name the petroleum product which is commonly used for electric generators.

Answer:

Diesel is used as a fuel for electric generators.

18. What is the full form of LPG?

Answer:

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The full form of LPG is Liquefied petroleum gas. It is also referred as propane or butane. It is flammable and is used as fuel in heating appliances, cooking equipment and vehicles.

**19.** Is it possible to extract petroleum from under the sea bed?

Answer:

Petroleum can be extracted from under the sea bed. It can be extracted with giant drilling machines. The layer containing petroleum oil and gas is above that of water.

**20.** What is the full form of CNG?

Answer:

The full form of CNG is compressed natural gas. Natural gas is a very important fossil fuel because it is easy to transport through pipes. Natural gas is stored under high pressure as compressed natural gas (CNG).

**21.** Name the major component of natural gas.

Answer:

Natural gas consists of primarily of methane but also contains ethane, propane and heavier hydrocarbons. It also contains small amounts of nitrogen, carbon dioxide, hydrogen sulphide and very little amount of water.

**22.** Name any two places in India where natural gas is found.

Answer:

India has huge reserves of natural gas. It has been found in Tripura, Rajasthan, Maharashtra and in the Krishna Godavari delta.

**23.** Name a fossil fuel other than coal and petroleum.

Answer:

Natural gas is a fossil fuel other than coal and petroleum. Natural gas consists of ethane, propane and heavier hydrocarbons.

**24.** Name the petroleum product used for surfacing of roads.

Answer:

Bitumen is used for the surfacing of roads.

**25.** Name any four places in India where petroleum is found.

Answer:

In India, oil is found in Assam, Gujarat, Mumbai High and in the river basins of Godavari and Krishna.

**26.** Where and when was the world's first oil well drilled?

Answer:

The world's first oil well was drilled in Pennsylvania, USA, in 1859

**27.** Where and when was oil first struck in India?

Answer:

At Makum in Assam, in 1867, oil was struck in India. Oil is found in Assam, Gujarat, Mumbai High and in the river basins of Godavari and Krishna.

**28.** Write the full form of PCRA.

Answer:

The full form of PCRA is Petroleum Conservation Research Association. It advises people how to save petrol/diesel while driving.

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## SHORT ANSWER TYPE QUESTIONS

29. What happens after petroleum is taken out of oil well?

Answer:

Crude oil needs to be processed to obtain useful products. After extraction from oil wells, petroleum is sent to oil refineries. Petroleum is subjected to fractional distillation in oil refinery. Various constituents of petroleum are separated through this process.

30. Explain why, fossil fuels are exhaustible natural resources.

Answer:

The amount of fossil fuels is very limited in nature. They can be exhausted by human activities. The formation of fossil fuels is a very slow process. These are formed under very high pressure and high temperature. For example, coal, petroleum and natural gas are fossil fuels. Coal was formed by the process of carbonisation. Carbonisation is the process by which plant material or vegetation buried deep under the earth was slowly converted into coal.

31. Describe how coal was formed. What is this process called?

Answer:

Coal was formed millions and millions of years ago in swampy forests where some plants died and some grew simultaneously. As the years passed, the layers of dead plants collected one over the other and formed thick layers. With changing weather conditions, more plants grew and the layers of dead plants continued to form deep. Coal is a fossil fuel. The heat and the pressure produced physical and chemical changes in the layers which resulted in the rich carbon content and forced the oxygen into the environment. This rich carbon content became as coal. This process of forcing the oxygen out and leaving behind carbon content was called as carbonisation. In other words, Carbonisation is the process by which plant material or vegetation buried deep under the earth was slowly converted into coal. This is a very slow process and usually, takes millions of years.

32. What happens when coal is heated in air? State the uses of coal.

Answer:

When heated in air, coal burns and produces mainly carbon dioxide gas. Coal can be processed in industry to get some useful products such as coke, coal tar and coal gas. Coal is used as a fuel in industries and was used to cook food. It was used in railway engines to produce steam to run the engine. It is used in thermal power plants to produce electricity.

33. State the uses of coke.

Answer:

Coke is a very useful product of coal. It is a tough, porous and black substance. It is almost pure form of carbon. It is used as a reducing agent in the extraction of metals. It is also used in the manufacture of steel and in the extraction of many metals.

34. What are the constituents of coal gas? State one use of coal gas.

Answer:

Coal gas is a product of coal. It is obtained during the processing of coal to get coke. Coal gas contains a variety of gases like hydrogen, carbon monoxide, methane and some volatile hydrocarbons. It also contains small quantities of gases such as carbon dioxide and nitrogen. It is used as a fuel in many industries situated near the coal processing plants.

35. What are the major products (or fractions) of petroleum refining? Give one use of each petroleum product.

Answer:

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The process of separating the various constituents or fractions of petroleum is known as refining. It is carried out in a petroleum refinery. The main products of petroleum refining are petroleum gas, petrol, diesel, lubricating oil, paraffin wax and kerosene. Following are the uses of petroleum products:

- Petroleum gas is used as fuel for home and industry.
- Petrol is used as a Motor fuel, aviation fuel and solvent for dry cleaning.
- Diesel is used as a fuel for heavy motor vehicles and electric generators.
- Lubricating oil is used as a lubricant.
- Kerosene is used as a fuel for stoves, lamps and for jet aircrafts.
- Paraffin wax is used in ointments, candles and Vaseline etc.
- Bitumen Paints are used in road surfacing.

**36.** What are the advantages of using natural gas (or CNG) as a fuel?

Answer:

CNG is compressed natural gas. Natural gas is a very important fossil fuel because it is easy to transport through pipes. Natural gas is stored under high pressure as compressed natural gas (CNG). It is advantageous to use CNG as a fuel because it is less polluting than petrol. It is a clean burning fuel. It produces 45% less hydrocarbons than petrol. The great advantage of CNG is that it can be used directly for burning in homes and factories where it can be supplied through pipes.

**37.** State the various uses of natural gas.

Answer:

Natural gas is a very important fossil fuel because it is easy to transport through pipes. It can be used as a fuel in homes and factories. It is also used as a starting material for the manufacture of a number of chemicals and fertilizers.

**38.** What is CNG? State its one use.

Answer:

CNG is compressed natural gas. Natural gas is a very important fossil fuel because it is easy to transport through pipes. Natural gas is stored under high pressure as compressed natural gas (CNG). It can be used as a fuel in homes and factories. It is also used as a starting material for the manufacture of a number of chemicals and fertilizers.

**39.** What is meant by inexhaustible natural resources? Name two inexhaustible natural resources.

Answer:

The resources which are present in unlimited quantity in nature and are not likely to be exhausted by human activities are known as inexhaustible natural resources. For example, sunlight and air are inexhaustible natural resources.

**40.** Where the natural gas found? Why is natural gas called a clean fuel?

Answer:

India has huge reserves of natural gas. It has been found in Tripura, Rajasthan, Maharashtra and in the Krishna Godavari delta. It is advantageous to use CNG as a fuel because it is less polluting than petrol. It is a clean burning fuel. It produces 45% less hydrocarbons than petrol. The great advantage of CNG is that it can be used as fuel in homes and factories where it can be supplied through pipes.



## QUESTION BANK (SET 02)

1. Various materials which are obtained from nature are called natural resources. Which of the following is not a natural resource?  
(a) minerals            (c) soil  
(b) water                (d) plastic
  2. Air is a natural resource and cannot be exhausted by human activities. It is known as inexhaustible natural resource. Which of the following is another inexhaustible natural resource?  
(a) coal                 (c) sun-light  
(b) petroleum        (d) minerals
  3. Which of the following is a pair of exhaustible natural resources.  
(a) coal and soil        (c) water and petroleum  
(b) air and sun-light    (d) wild life and minerals
  4. Coal is processed in industries to get some useful products. Which of the following is not obtained from coal?  
(a) coke                    (c) coal gas  
(b) coal tar                (d) CNG
  5. Exhaustible natural resources are:  
(a) unlimited in quantity.        (b) not dependent on nature.  
(c) limited in quantity.         (d) not exhausted by human activities.
  6. Fossil fuels are obtained from:  
(a) remains of non-living materials.  
(b) dead remains of birds only.  
(c) dead remains of insects only.  
(d) dead remains of living organisms.
  7. Coal is formed from the remains of  
(a) vegetation only        (c) both vegetation and animals  
(b) animals only         (d) neither vegetation nor animals
  8. Which substance is formed by the carbonisation of dead vegetation?.  
(a) coal                    (c) coal gas  
(b) coke                  (d) coal tar
  9. Naphthalene balls are obtained from coal tar and are used as  
(a) mosquito repellent        (c) moth repellent  
(b) honey bee repellent        (d) snake repellent
  10. Which of the following is not a constituent of petroleum?  
(a) paraffin wax         (c) petrol  
(b) lubricating oil        (d) coke
  11. Petroleum was formed from organisms:  
(a) living on the land        (c) living in the sea  
(b) living on the plants      (d) living on the rocks
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12. Choose the correct statement from the following:
- (a) It is difficult to transport natural gas through pipes.
  - (b) The disadvantage of natural gas is that it can not be used directly for burning in homes.
  - (c) Natural gas is stored under high pressure as compressed natural gas.
  - (d) Natural gas cannot be used for power generation.
13. Which one of the following is not a fossil fuel?
- (a) petrol (b) coke (c) charcoal (cl) coal
14. The major component of LPG is :
- (a) hydrogen (b) carbon monoxide (c) methane (cl) butane
15. Which is the major component of CNG?
- (a) ethane (b) propane (c) methane (d) butane
16. The gas which occurs above the petroleum oil trapped under the rocks is called :
- (a) biogas (b) petroleum gas (c) natural gas (d) coal gas
17. Which of the following is being used as a source of hydrogen gas needed to manufacture fertilisers?
- (a) biogas (b) natural gas (c) coal gas (d) petroleum gas
18. One of the following is not an exhaustible source of energy. This one is :
- (a) natural gas (la) petroleum gas (c) coal gas (d) biogas
19. The slow process by which the large land plants and trees buried deep under the earth have become coal is called :
- (a) carbonation (b) carburation (c) carbonisation (d) carbocation
20. Which of the following is used as a reducing agent in the extraction of iron metal?
- (a) coal (b) bitumen (c) charcoal (d) coke
21. Which of the following is usually referred to as 'black gold'?
- (a) coke (b) coal tar (c) petroleum (d) coal
22. The various compounds present in coal tar are separated by the process of :
- (a) simple distillation (b) destructive distillation
  - (c) fractional distillation (d) fractional crystallisation
23. Which of the following is not obtained as a fraction during the refining of petroleum?
- (a) kerosene (b) natural gas (c) lubricating oil (d) bitumen
24. Which one of the following is an inexhaustible natural resource?
- (a) coal (b) petroleum (c) water (d) forests
25. Fill in the following blanks with suitable words:
- (a) Fossil fuels are.....and.....
  - (b) Coal contains mainly.....
  - (c) The slow process of conversion of dead vegetation into coal is called.....
  - (d) The process of separation of different constituents from petroleum is called.....
  - (e) The least polluting fuel for vehicles is.....
  - (f) The burning of fossil fuels causes air.....and also leads to global.....
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26. Fill in the blanks.

- (a) The slow process of conversion of dead vegetation into coal is called \_\_\_\_\_.
- (b) Coal and petroleum are formed from the dead remains of organisms and are known as \_\_\_\_\_.
- (c) The black thick liquid with \_\_\_\_\_ smell is known as coal tar.
- (d) During the processing of coal to get coke, coal tar and \_\_\_\_\_ are also obtained.
- (e) The process of separating the various constituents of petroleum is known as \_\_\_\_\_.
- (f) Excessive burning of fossil fuels is a major cause of \_\_\_\_\_.

27. Fill in the blanks in the following sentences.

- (a) Coal is one of the \_\_\_\_\_ used to cook food.
- (b) When heated in air, coal burns and produces mainly \_\_\_\_\_ gas.
- (c) Coal tar is a black, thick \_\_\_\_\_ with an \_\_\_\_\_ smell.
- (d) Petroleum, \_\_\_\_\_ and \_\_\_\_\_ are fossil fuels.
- (e) Forests and coal are \_\_\_\_\_ natural resources.

28. Write True/False against the following statements.

- (a) Oxygen in air is an exhaustible natural resource.
- (b) Resources which are present in unlimited quantity in nature are called exhaustible natural resources.
- (c) Wildlife is an exhaustible natural resource.
- (d) Under high temperature and pressure, dead plants get slowly converted to coal.
- (e) CNG is less polluting fuel than petrol and diesel.

29. State whether the following statements are true or false:

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

30. What is a natural resource?

31. What is inexhaustible natural resource?

32. What is exhaustible natural resource?

33. What is fossil fuel?

34. What is a fossil?

35. What do you understand by carbonization?

36. What is diesel?

37. Petrol is obtained from which substance?

38. Which petroleum product is used as fuel in airplane?

39. Write some uses of coal.

40. What is coke?

41. Write some uses of coal tar.

42. Write two uses of natural gas. State one use each of the following products of petroleum :

- (a) Petroleum gas (b) Petrol (c) Diesel (d) Lubricating oil (e) Bitumen
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43. What is the major cause of air pollution? Write the various tips for minimising the wastage of petrol/diesel while driving vehicles.
44. Why should we use fossil fuels only when absolutely necessary?
45. State (a) two uses of kerosene, and (b) two uses of paraffin wax.
46. (a) What is meant by inexhaustible natural resources? Name two inexhaustible natural resources.
- (b) What is meant by exhaustible natural resources? Name any two exhaustible natural resources.
47. (a) What are fossil fuels? Name three fossil fuels.
- (b) Describe how, fossil fuels were formed.
48. (a) What is Petroleum? Where does petroleum occur?
- (b) Describe the process of formation of petroleum.
49. (a) What are petrochemicals? Name any two petrochemicals.
- (b) Why are petrochemicals so important?
50. The substance W is a fossil fuel. It occurs deep below the ground in certain areas of the earth. Another fossil fuel X is found trapped above the deposits of W. when W is subjected to a process called Y, then a number of different products are collected at different temperature ranges which are put to different uses. A special grade of product z obtained in this way is used as an aviation fuel in jet aero planes.
- (a) What are (i) W, and (ii) X
- (b) what is the physical state of (i) W, and (ii) X?
- (c) Name the process Y?
- (d) Name the product Z?
- .....
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