



CHEMISTRY

BOOKS - PEARSON IIT JEE

FOUNDATION

COAL AND PETROLEUM

Solved Example

1. Read the given options and try to answer the following questions.

Sunlight, Air, Forests, Water, Wildlife, Minerals,
Coal, Petroleum, Natural gas.

a. From the given options, which of them are
inexhaustible natural resources.

b. Name three exhaustible natural resources
from the given option

c. what is the basic difference between
exhaustible and inexhaustible natural
resources.



Watch Video Solution

2. Read the given options and try to answer the following questions.

Water, Crops, Metals, Utensils, Fabrics, Sunlight, Plastic, Brass

a. Identify list of various materials used by us in life and classify them as natural and man made resource.

b. Can we use all our natural resources forever?

c. Discuss if air, water and soil can be exhausted by human activities.



Watch Video Solution

3. What are fossil fuels ?



[Watch Video Solution](#)

4. Can sunlight get exhausted by human activities?



[Watch Video Solution](#)

5. Explain how large amount of heat energy is produced from fuel.



[Watch Video Solution](#)

6. Give two examples of fuel.



[Watch Video Solution](#)

7. Answer is one word.

a. It is the process of conversion of remains of

dead plants and trees into coal _____

b. it is another name for brown coal. _____

c. It is the gaseous residue of coal, during destructive distillation, mainly composed of hydrogen, methane and carbon monoxide. _____

d. Any state of India where coal deposits are found. _____



Watch Video Solution

8. Which state produces most coal in India?



[Watch Video Solution](#)

9. Which country is the largest producer of coal?



[Watch Video Solution](#)

10. Name the 4 types of coal.



[Watch Video Solution](#)

11. Which coal is considered of best quality?



Watch Video Solution

12. Which is the lowest quality of coal?



Watch Video Solution

13. Where do we get coal and how is it formed?



[Watch Video Solution](#)

14. From where does coal tar is obtained?



[Watch Video Solution](#)

15. Give two uses of coal tar.



[Watch Video Solution](#)

16. What happens when coal is heated in air ?

State the use of coal.



Watch Video Solution

17. Explain the process of carbonization.



Watch Video Solution

18. Explain the process of destructive distillation of coal.



[Watch Video Solution](#)

19. What are petrochemicals? Name any two petrochemicals.



[Watch Video Solution](#)

20. Which state is the largest producer of petroleum in India?



[Watch Video Solution](#)

21. Where is the India's largest Strategic Petroleum Reserve is located?



Watch Video Solution

22. List any two fractions obtained from crude oil during fractional distillation.



Watch Video Solution

23. State True (T) or false (F)

a. Vaseline, the petroleum jelly that we can use at home, is obtained from fuel oil _____

b. Crude oil is made up of only one kind of hydrocarbon. _____

c. During fractional distillation, components present in crude oil that have higher boiling points liquify near the top of the fractionating column.



Watch Video Solution

24. Give at least one use

a. Naphtha

b. Kerosene

c. Paraffin was



Watch Video Solution

25. Explain why crude oil is also called black gold.



Watch Video Solution

26. What are petroleum reservoirs? Name any two petroleum reservoirs found in India.



Watch Video Solution

27. Where is petroleum mainly found?



Watch Video Solution

28. Name the process through which petroleum is extracted from deep ocean.



[Watch Video Solution](#)

29. Where is natural gas most commonly found?



[Watch Video Solution](#)

30. Which state is largest producer of natural gas in India?



[Watch Video Solution](#)

31. Give two characteristics features of natural gas.



Watch Video Solution

32. Name two natural gas reservoirs found in India.



Watch Video Solution

33. What do you mean by compressed natural gas?



Watch Video Solution

34. Which property of natural gas makes it most useful and important?



Watch Video Solution

35. Give two uses of natural gas.



Watch Video Solution

36. What is the biggest disadvantage of natural gas?



Watch Video Solution

37. Why should we get air conditions serviced from time to time?



Watch Video Solution

38. Mention any one effect of global warming.



Watch Video Solution

39. Name the harmful gases released in the atmosphere due to burning of fossil fuels.



Watch Video Solution

40. What is acid rain? Also give two ill effects of acid rain.





[Watch Video Solution](#)

41. Give two ill effects of oil spills.



[Watch Video Solution](#)

42. Give one reason for melting of the polar ice caps.



[Watch Video Solution](#)

43. What do you understand by conservation of energy?



Watch Video Solution

44. Give two ways in which we can all contribute towards the conservation of fuels.



Watch Video Solution

Track Your Learning I

1. A thing that humans use for their benefit is called _____.

A. resource

B. forest

C. water

D. both and c

Answer: A



Watch Video Solution

2. Plants use carbon dioxide, a resource present in air, along with sunlight to make their own food through a process called_____.

A. respiration

B. photosynthesis

C. transport in plant

D. light mechanism

Answer: B



Watch Video Solution

3. Resources that are inexhaustible are also called _____ resources.

- A. renewable
- B. non renewable
- C. natural
- D. exhaustible

Answer: B



Watch Video Solution

4. Fuels formed inside the Earth from the dead remains of plants and animals are called _____ fuels.

A. fossil

B. coal

C. petroleum

D. None of them

Answer: A



Watch Video Solution

Track Your Learning li

1. _____ is mainly composed of carbon, hydrogen and oxygen, and also contains small amounts of nitrogen and sulphur.

A. coke

B. coal tar

C. coal gas

D. coal

Answer: D



Watch Video Solution

2. _____ is also used to manufacture steel, an alloy of iron.

A. coal tar

B. coal gas

C. coal

D. coke

Answer: D



Watch Video Solution

3. Coal is formed deep inside the surface of the Earth, it is obtained through the process of _____.

A. mining

B. drilling

C. carbonization

D. None of them

Answer: A



Watch Video Solution

4. _____ contains about 70-90% coal. It is also known as black lignite. It is used for power generation.

A. Peat

B. Bituminous

C. Lignite

D. Anthracite

Answer: B



Watch Video Solution

5. _____ contains the lowest amount of carbon.

A. Peat

B. Bituminous

C. Lignite

D. Anthracite

Answer: A



Watch Video Solution

6. _____ is mainly used for production of electricity for heating and as a fuel for steam engines and furnaces.

A. Peat

B. Bituminous

C. Lignite

D. Anthracite

Answer: D



Watch Video Solution

7. _____ of coal is a process in which coal is heated strongly at a temperature of $1000^{\circ}C$ in the absence of air

- A. Carboniation
- B. Destructive distillation
- C. Mining
- D. Metalling the road

Answer: B



Watch Video Solution

8. _____ is a petroleum product used in place of coal tar for metalling the roads.

A. Bitumen

B. Anthracite

C. Peat

D. Lignite

Answer: B



Watch Video Solution

9. _____ is a thick, black coloured liquid with an unpleasant odour.

A. Coal tar

B. Coke

C. Coal gas

D. Peat

Answer: A



Watch Video Solution

10. The residue that is left behind when coal is subjected to destructive distillation is called_____

A. Coke

B. Coal gas

C. Peat

D. Coal

Answer: A



Watch Video Solution

Track Your Learning Iii

1. Petroleum plays a significant role in our day to day lives, crude oil is also called _____.

- A. Black gold
- B. Black rose
- C. Black diamond

D. Black crude

Answer: A



Watch Video Solution

2. The places where the Earth is drilled to bring petroleum up to the surface are called

A. reservoirs

B. petroleum reservoirs

C. crude tanks

D. oil wells

Answer: A



Watch Video Solution

3. _____ in its natural form is a very waxy and thick liquid, which is of no real use.

A. Petrol

B. Crude oil

C. Diesel

D. Paraffin.

Answer: B



Watch Video Solution

4. The process through which crude oil is separated into useful substances is called _____ of petroleum.

A. refining

B. fractioning

C. distillation

D. None of them

Answer: B



Watch Video Solution

5. _____ is used in paints and insurfacing of roads.

A. Bitumen

B. Peat

C. Lignite

D. Paraffin.

Answer: A



Watch Video Solution

6. _____ process is based on the principle that different constituents of crude oil have different boiling points.

- A. Refining of oil
- B. Fractional distillation
- C. Fractionating tower
- D. Both b and c

Answer: B



Watch Video Solution

7. _____ is a mixture of various constituents such as petroleum gas, petrol, diesel, lubricating oil, paraffin wax

A. Crude oil

B. Petroleum

C. Diesel

D. Naptha

Answer: B



Watch Video Solution

8. The layer containing petroleum oil and gas is present _____ that of water.

A. beneath

B. below

C. above

D. None of them

Answer: B



Watch Video Solution

Track Your Learning Iv

1. Natural gas is mainly made up of a gas called_____.

A. Methane

B. Ethane

C. Hydrogen

D. Ammonia

Answer: A



Watch Video Solution

2. The natural gas is _____ than petroleum it floats above the petroleum deposits trapped beneath impervious rocks.

A. heavier

B. lighter

C. transparent

D. None of them

Answer: B



Watch Video Solution

3. Natural gas odour is helpful in detecting _____.

- A. gas leakages
- B. explosion
- C. manufacture of ammonia
- D. Both a and b

Answer: A



Watch Video Solution

4. Natural gas stored under high pressure, known as _____, is supplied to homes to be used for cooking and heating.

A. CNG

B. Paraffin

C. petrol

D. Diesel

Answer: A



Watch Video Solution

5. _____ is obtained from reservoirs by drilling and pumping the gas out and transporting it through pipelines to large storage areas.

A. Natural gas

B. Crude oil

C. Petrol

D. Naphtha

Answer: A



Watch Video Solution

Track Your Learning V

1. Which of these components present in air is a pollutant?

- A. Oxygen
- B. Carbon dioxide
- C. Water vapour
- D. Sulphur dioxide

Answer: D



Watch Video Solution

2. _____ can lead to melting of the polar ice caps.

- A. Global warming
- B. Greenhouse effect
- C. Eutrophication
- D. Oil spill

Answer: A



Watch Video Solution

3. The ____ effects will damage water ways marine life and plants and animals on the land.

A. greenhouse effect

B. eutrophication

C. oil spill

D. global warming

Answer: C



Watch Video Solution

4. In acid rain ____ oxides and ____ dioxide will react with the tiny droplets of water in clouds. The rain from these clouds then falls as acid rain.

A. sulphur, nitrogen

B. carbon, oxygen

C. sulphur, sulphate

D. ozone, oxalate

Answer: A



Watch Video Solution

5. The increase in the levels of gases, such as carbon dioxide, in the atmosphere increases temperature of atmosphere and this phenomenon is called_____.

A. Global warming

B. eutrophication

C. acid rain

D. precipitation

Answer: A



Watch Video Solution

Hots Higher Order Thinking Skills

1. Natural gas is mixed with a chemical that gives out strong odour of rotten eggs. Why?



[Watch Video Solution](#)

2. Why does natural gas float above the petroleum deposits?



[Watch Video Solution](#)

3. Name the two fractions of petroleum.



[Watch Video Solution](#)

4. What other source of energy may be used to drive vehicles?



Watch Video Solution

5. What is coal tar? What are its uses?



Watch Video Solution

6. Why CNG is called clean fuel?



Watch Video Solution

7. You are provided with a mixture of petroleum and water. How will you separate the two?



[Watch Video Solution](#)

8. Select the incorrect statements among the following.

(i) Bitumen is used for metalling the roads.

(ii) Some inexhaustible natural resources like

coal, petroleum and natural gas formed from the dead remains of living organisms are known as fossil fuels.

(iii) many useful substances are obtained from coal so, it is also called black gold.

(iv) Natural gas is used as a starting material for the manufacture of a number of chemicals and fertilizers.

A. I and ii

B. ii and iii

C. ii and iv

D. II,iii and iv

Answer:



Watch Video Solution

Classroom Corner

1. Which of these is renewable resource?

A. coal tar

B. Water

C. Petroleum

D. Natural gas

Answer: C



Watch Video Solution

2. During frictional distillation, which of these components of crude oil does not condense on any of the trays in the fractioning column?

A. Gasolin

B. Paraffin wax

C. Petroleum gas

D. Naphtha

Answer: D



Watch Video Solution

3. Which of these forms of coal contains the highest amount of carbon?

A. Peat

B. Lignite

C. Bituminous coal

D. Anthracite

Answer: B



Watch Video Solution

4. Which of these actions can contribute towards conserving fossil fuels?

A. Switching off fans when no one is in the room

B. Using bicycles to commute to schools and offices instead of cars

C. Using diesel cars instead of petrol cars for road trips

D. Cooking food on low flame

Answer: A



Watch Video Solution

5. Water is a _____.

A. Nature substance

B. man made substances

C. Both of these

D. None of these

Answer: A



Watch Video Solution

6. When coal burns in air then

A. Carbon dioxide is formed

B. Sulphur dioxide is formed

C. Carbon monoxide is formed

D. Hydrogen gas is formed

Answer: A



Watch Video Solution

7. Purest form of carbon is

A. coal tar

B. Charcoal

C. Coke

D. All of these

Answer: C



Watch Video Solution

8. Coal tar contains about

A. 300 substances

B. 400 substnaces

C. 200 substances

D. 100 substances

Answer: C



Watch Video Solution

9. The first oil well was drilled in

A. USA

B. USSR

C. UK

D. India

Answer: A



Watch Video Solution

10. PCRA stands for

A. Public conservation Research
Association

B. Petroleum conservation Research
Association

C. Public Council of Research Association

D. Partial Counting of remaining
Amendment

Answer: B



[Watch Video Solution](#)

11. An example of fossil fuel is

A. Wood

B. Animal waste

C. Coal

D. All of these

Answer: C



[Watch Video Solution](#)

12. Which of the following is natural resource?

A. Car

B. Bus

C. Water

D. Parks

Answer: C



Watch Video Solution

13. Which of the following is man made resource?

A. Air

B. Water

C. Soil

D. Parks

Answer: D



Watch Video Solution

14. Which of the following is obtained from coal tar?

A. Petrol

B. Coke

C. Air

D. Naphthalene balls

Answer: D



Watch Video Solution

15. Coal is broken down into many simpler, useful substances through a process called ____

A. refining

B. destructive distillation

C. Mining

D. fractionation

Answer: B



Watch Video Solution

16. Petroleum is called a _____ resource because it cannot be naturally replaced in the foreseeable future.

A. Non renewable

B. renewable

C. exhaustible

D. inexhaustible

Answer: A



Watch Video Solution

17. Any substance that can be burnt to produce energy is called a/an _____.

A. Fossil

B. Fuel

C. Coke

D. Coal tar

Answer: B



Watch Video Solution

18. The tall tower into which vapours of crude oil are passed during fractional distillation is called a _____ column.

- A. Refinery
- B. Distillation
- C. Fractionating
- D. None of them

Answer: C



Watch Video Solution

19. The full of CNG is _____.

- A. compressed natural gas
- B. Combined natural gas
- C. Compromised natural gas
- D. Common natural gas

Answer: A



Watch Video Solution

20. The form of carbon that contains the lowest amount of carbon is called_____.

A. Lignite

B. peat

C. Bitumine

D. Anthracite

Answer: B



Watch Video Solution

21. Increase in the carbon dioxide levels in the atmosphere has gradually led to a phenomenon known as _____

- A. Eutrophication
- B. Global warming
- C. Green house effect
- D. Oil spill

Answer: B



Watch Video Solution

22. Locations where the Earth is drilled into a
bring petroleum up to the surface are called
_____.

A. oil wells

B. oil spills

C. oil reservoirs

D. oil digs

Answer: A



Watch Video Solution

23. The judicious use of fossil fuels and other energy sources is called_____of energy.

A. protection

B. Conservation

C. restoration

D. prevention

Answer: B



Watch Video Solution

24. The main constituent of natural gas is hydrocarbon called _____

A. Methane

B. Ethane

C. Carbon monoxide

D. Ethylene

Answer: A



Watch Video Solution

25. _____ is used in aircraft and in vehicles such as cars and as a solvent while dry cleaning clothes.

A. Gasoline

B. Naphtha

C. Diesel

D. Naphtha

Answer: A



Watch Video Solution

26. In the fractional distillation process, crude oil is heated to a temperature of about ___ in a tall furnace.

A. $350 - 400^{\circ} C$

B. $150 - 290^{\circ} C$

C. $450 - 500^{\circ} C$

D. $100 - 150^{\circ} C$

Answer: A



Watch Video Solution

27. _____ is a fuel composed mainly of nitrogen (N_2) and carbon monoxide (CO), formed by passing air through red hot coke.

A. water gas

B. producer gas

C. Coal tar

D. Paraffin.

Answer: A



Watch Video Solution

28. _____ is used to make things such as pesticides, perfumes, naphthalene balls and paints.

A. coke

B. Coal tar

C. Coal gas

D. Peat

Answer: B



Watch Video Solution

29. _____ is used in the production of other fuels such as producer gas and water gas.

A. Coke

B. Coal tar

C. Coal gas

D. Peat

Answer: A



Watch Video Solution

30. _____ of coal is a process in which coal is heated strongly at a temperature of $1000^{\circ}C$ in the absence of air

A. Destructive distillation

B. Refining

C. Crystallization

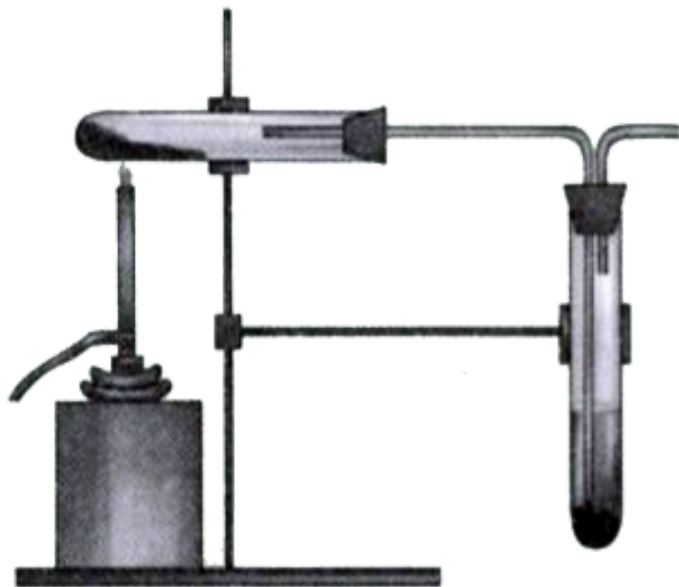
D. None of them

Answer: A



Watch Video Solution

31. The process of heating coal in the absence of air is called the destructive distillation of coal. Coal contains a number of elements such as carbon, hydrogen, oxygen, nitrogen and sulphur. When coal is heated in the absence of air, a number of products are obtained. A laboratory set up to carry out destructive distillation of coal as shown.



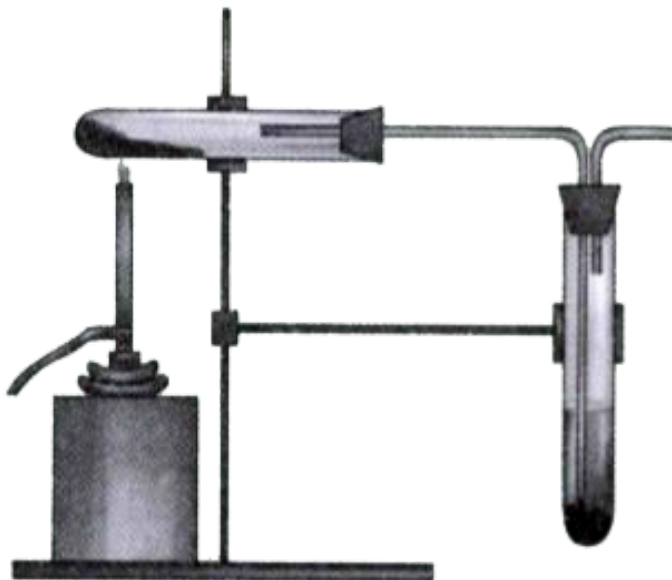
Read the below questions and try to answer them.

Name the main products obtained by the destructive distillation of coal.



Watch Video Solution

32. The process of heating coal in the absence of air is called the destructive distillation of coal. Coal contains a number of elements such as carbon, hydrogen, oxygen, nitrogen and sulphur. When coal is heated in the absence of air, a number of products are obtained. A laboratory set up to carry out destructive distillation of coal as shown.



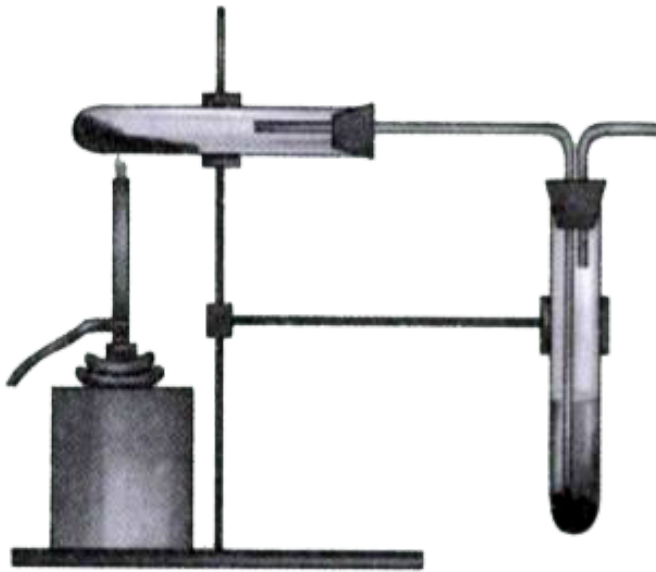
Read the below questions and try to answer them.

Give two uses of coal tar.



Watch Video Solution

33. The process of heating coal in the absence of air is called the destructive distillation of coal. Coal contains a number of elements such as carbon, hydrogen, oxygen, nitrogen and sulphur. When coal is heated in the absence of air, a number of products are obtained. A laboratory set up to carry out destructive distillation of coal as shown.



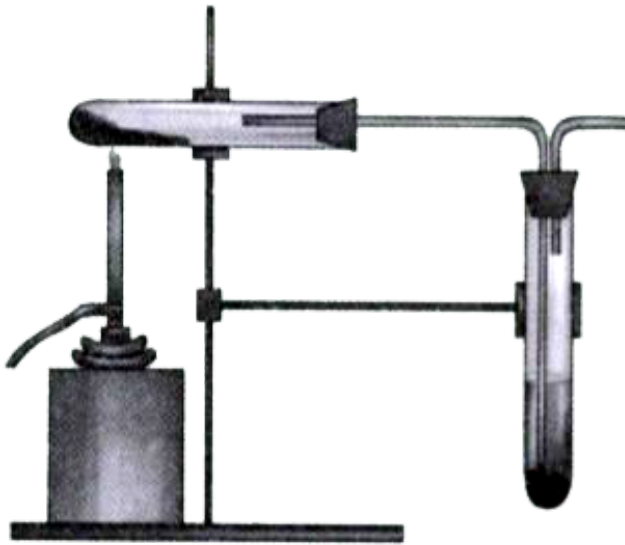
Read the below questions and try to answer them.

Explain why coal gas is considered an excellent fuel?



Watch Video Solution

34. The process of heating coal in the absence of air is called the destructive distillation of coal. Coal contains a number of elements such as carbon, hydrogen, oxygen, nitrogen and sulphur. When coal is heated in the absence of air, a number of products are obtained. A laboratory set up to carry out destructive distillation of coal as shown.



Read the below questions and try to answer them.

Name the purest of coal.



Watch Video Solution

35. Petroleum is a complex mixture of solid liquid and gaseous hydrocarbons, mixed with salt water and earthy particles. It is always found trapped between two impervious rocks. It is believed that petroleum is formed by the anaerobic decomposition of extremely small sea animals and plants which got buried in the sea bed millions of years ago.

Read the below questions and try to answer them.

Why does petroleum has a strong foul smell?



Watch Video Solution

36. Petroleum is a complex mixture of solid liquid and gaseous hydrocarbons, mixed with salt water and earthy particles. It is always found trapped between two impervious rocks. It is believed that petroleum is formed by the anaerobic decomposition of extremely small sea animals and plants which got buried in the sea bed millions of years ago.

Read the below questions and try to answer them.

What do you understand by refining of petroleum?



[Watch Video Solution](#)

37. Petroleum is a complex mixture of solid liquid and gaseous hydrocarbons, mixed with salt water and earthy particles. It is always found trapped between two impervious rocks. It is believed that petroleum is formed by the anaerobic decomposition of extremely small sea animals and plants which got buried in the

sea bed millions of years ago.

Read the below questions and try to answer them.

Name the method by which petroleum is refined.



[Watch Video Solution](#)

38. Petroleum is a complex mixture of solid liquid and gaseous hydrocarbons, mixed with salt water and earthy particles. It is always found trapped between two impervious rocks.

It is believed that petroleum is formed by the anaerobic decomposition of extremely small sea animals and plants which got buried in the sea bed millions of years ago.

Read the below questions and try to answer them.

Name some by products that are obtained while refining petroleum.



Watch Video Solution

39. Natural gas was formed millions of years ago along with petroleum when microscopic sea plants and animals died and got buried under the sand and mud. These plants & animals under anaerobic conditions changed to gas. Natural gas consists mainly of methane (about 85%), ethane (about 10%), propane (about 3%) and butane. Read the below questions and try to answer them.

Why is CNG being used as fuel for transportation?



Watch Video Solution

40. Natural gas was formed millions of years ago along with petroleum when microscopic sea plants and animals died and got buried under the sand and mud. These plants & animals under anaerobic conditions changed to gas. Natural gas consists mainly of methane (about 85%), ethane (about 10%), propane (about 3%) and butane. Read the below questions and try to answer them.

Name two uses of natural gas.



Watch Video Solution

41. Natural gas was formed millions of years ago along with petroleum when microscopic sea plants and animals died and got buried under the sand and mud. These plants & animals under anaerobic conditions changed to gas. Natural gas consists mainly of methane (about 85%), ethane (about 10%) propane (about 3%) and butane. Read the below questions and try to answer them.

Name one advantage of CNG.

42. Natural gas was formed millions of years ago along with petroleum when microscopic sea plants and animals died and got buried under the sand and mud. These plants & animals under anaerobic conditions changed to gas. Natural gas consists mainly of methane (about 85%), ethane (about 10%), propane (about 3%) and butane. Read the below questions and try to answer them.

Where does natural gas reservoir found in our contry?



[Watch Video Solution](#)

43. What do you understand by calorific value of a fuel?



[Watch Video Solution](#)

44. Give two characteristics features of an ideal fuel.



Watch Video Solution

45. Can we use all our natural resources forever?



Watch Video Solution

46. Can air, water and soil be exhausted by human activities?



Watch Video Solution

47. Is water a limit less source?



Watch Video Solution

48. Name the petroleum product used for surfacing of roads.



Watch Video Solution

49. Explain why fossil fuels are exhaustible natural resources





Watch Video Solution

50. Assertion: Anthracite is the purest form of coal.

Reason: It contains about 50% of carbon.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of

assertion

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

Answer: C



Watch Video Solution

51. Assertion : CNG and LPG are clean fuels.

Reason : They do not leave any residue on burning.



Watch Video Solution

52. Assertion : Petrol is more volatile than diesel oil.

Reason : Petrol condenses near the top of the column than diesel oil.



Watch Video Solution

53. Assertion: Charcoal does not produce any smoke.

Reason: Charcoal contains only carbon.



[Watch Video Solution](#)

54. Assertion : Kerosene is a fossil fuel.

Reason : Kerosene is not obtained as a fraction of fractional distillation of petroleum.



[Watch Video Solution](#)

55. Give reasons for each of the following:

A foul smelling chemical is added to natural gas before distributing it to homes and factories.



[Watch Video Solution](#)

56. Give reasons for each of the following:

Coal, petroleum and natural gas are called fossil fuels.



[Watch Video Solution](#)

57. Give reasons for each of the following:

Natural gas is always found about petroleum deposits inside impervious rocks.





Watch Video Solution

58. Complete the table given below with information about fossil fuels.

Fossil fuel	Coal	Petroleum	Natural gas
State of matter			
What is it formed from			
Any two uses			



Watch Video Solution

59. Write any two points of difference between renewable and non renewable resources.



Watch Video Solution

60. Describe how petroleum is formed from the remains of marine plants and animals over a period of millions of year? Explain in brief.



Watch Video Solution

61. Mention any three things we can do in our day to day lives to help conserve fossil fuels.



Watch Video Solution

62. How do fossil fuels contribute to pollution?

Commet.



Watch Video Solution

63. During fractional distillation of petroleum, different components condense at different heights in the fractionating tower. Explain why?



Watch Video Solution

64. Explain these points given below.

Coke is sometimes preferred over coal as a fuel.



Watch Video Solution

65. Explain these points given below.

Increase in carbon dioxide content in the atmosphere has led to global warming.



Watch Video Solution

66. Explain these points given below.

The process of formation of coal inside the Earth is called carbonization.



Watch Video Solution

67. What are the advantages of using CNG and LPG as fuels? Give three points.



Watch Video Solution

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



Watch Video Solution

69. How do oil spills harm the environment?

Comment.



Watch Video Solution

70. How does acid rain cause soil infertility?

Justify Your answer.



Watch Video Solution

71. Explain how global warming does melt the polar ice caps.



Watch Video Solution

72. Do you think it is justified to call coal, crude oil and natural gas non renewable resources? Give reasons to support your answer.



Watch Video Solution

73. Which fossil fuel is an environment friendly fuel? Describe how it has been used in recent years in an effort to reduce pollution levels caused due to burning of fossils fuels?



Watch Video Solution

74. State few advises given by PCRA for saving petrol and diesel. Explain them in your own words.



Watch Video Solution

75. What are petrolchemicals? Give two classes of petrochemicals.



Watch Video Solution

76. How will renewable energy helps to restore the environment?



Watch Video Solution

77. What is the importance of energy conservation?



[Watch Video Solution](#)

78. What do you understand by reservoir rock?



[Watch Video Solution](#)

79. Explain why the layer of petroleum is above the water.



[Watch Video Solution](#)

80. Explain why is coal known as black diamond?



[Watch Video Solution](#)

81. Explain why water is an inexhaustible natural resources. Comment.



[Watch Video Solution](#)

82. Why is renewable energy important for our future?



Watch Video Solution

83. Give reasons for the below points.

What are inexhaustible natural resources give two examples?



Watch Video Solution

84. Give reasons for the below points.

Why renewable energy is important?



Watch Video Solution

85. Give reasons for the below points.

Can renewable energy replace fossil fuels?



Watch Video Solution

86. Do you think there will be any impact on human life coal supplies get exhausted in next 5 years?



Watch Video Solution

87. Explain what will happen if petrol gets exhausted.



Watch Video Solution

88. Where is the India's largest Strategic Petroleum Reserve is located?



Watch Video Solution

89. How do you think renewable resources such as sunlight and water can contribute towards conserving fossils fuels?



Watch Video Solution

90. It has been estimated that coal and petroleum reserves will last another hundred years.

a. What are the reasons that have led to this condition of natural resources?

b. Do you think survival of human beings would be possible? Support your answer with reasons.



View Text Solution

91. The roots of all resources, both natural and man made, lie in nature. Justify this statement with appropriate reasons and /or examples.



View Text Solution

92. Sort the things listed below into natural and man made resources.

Natural resources	Man-made resources

b. On the basis of your classification, define the term resource.

b. How can be conserve natural resources.

c. give two uses of coal.

e. How coal in majority formed?



[View Text Solution](#)

93. What do you understand by destructive distillation of coal? Draw a neat and labelled dia gram showing the laboratory set up for the destructive distillation of coal.



[Watch Video Solution](#)

94. Explain how the vapours of crude oil rising up in the fractioning column of a fractional distillation set up are separated into different components.



[View Text Solution](#)

95. Briefly describe the term given below:

Lignite



[Watch Video Solution](#)

96. Briefly describe the term given below:

Anthracite



Watch Video Solution

97. Briefly describe the term given below:

Producer gas



Watch Video Solution

98. Briefly describe the term given below:

Coke



Watch Video Solution

99. Briefly describe the term given below:

Natural gas



Watch Video Solution

100. Explain how coal is formed from the remains of dead plants and trees over millions of years. Justify your answer.



Watch Video Solution

101. Explain how natural gas is formed and extracted.



View Text Solution

102. Describe how , fossil fuels were formed.



Watch Video Solution

103. Why are petrochemicals so important ?



Watch Video Solution

104. Explain what are 5 ways to conserve energy in your home.



Watch Video Solution

105. How is energy affecting the environment?



Watch Video Solution

106. Give reasons for the below points

How are oil reservoirs formed?



Watch Video Solution

107. Give reasons for the below points

Why do we find oil layer above the water layer?



Watch Video Solution

Competition Corner

1. Which of these forms of coal contains the highest amount of carbon?

A. Peat

B. Lignite

C. Anthracite

D. Bituminous coal

Answer: C



Watch Video Solution

2. During frictional distillation, which of these components of crude oil does not condense on any of the trays in the fractioning column?

A. Naphtha

B. Gasoline

C. Paraffin wax

D. Petroleum gas

Answer: D



Watch Video Solution

3. What are the 4 Rs of resource management?

A. Rise, raw, recycle and recover

B. Reduce, reuse, recycle and recover

C. Random, respect, recycle and reuse

D. Respect, recycle, resource and reuse

Answer: B



Watch Video Solution

4. Which of these should you do to conserve energy?

A. Keep air conditioners on

B. Use only personal vehicles for travelling

C. Cook food in open utensils on high flame

D. Switch off electronic appliances when
not in use

Answer: D



Watch Video Solution

5. Why CFL or LED bulbs should be used instead of conventional bulbs?

- A. They emit more light energy.
- B. They require less power to run.
- C. They can run without electricity
- D. They clean the pollutants in the air

Answer: B



Watch Video Solution

6. Which of these will be a likely result of global warming?

A. Shortage of drinking water

B. Breaking of mountains

C. Rise in ocean level

D. Deposition of ice

Answer: C



Watch Video Solution

7. What is the phenomenon of gradual increase in global temperature called?

A. Global cooling

B. Global warming

C. Ozone depletion

D. Atmosphere reduction

Answer: B



Watch Video Solution

8. Which gas contributes to acid rain?

A. Ozone

B. Methane

C. Carbon dioxide

D. Carbon monoxide

Answer: D



Watch Video Solution

9. Which of these will be affected most due to an oil spill in an ocean?

A. Salinity of water

B. Quantity of water

C. Minerals in water

D. Living organisms in water

Answer: D



Watch Video Solution

10. In which form is natural gas supplied to homes for domestic purposes?

A. Lubricating oil

B. Gasoline

C. Diesel

D. CNG

Answer: D



Watch Video Solution

11. Which of these statements about natural gas is true?

A. It generates a lot of pollution.

B. It smells like rotten eggs.

C. It is mildly flammable.

D. It is colorless.

Answer: D



Watch Video Solution

12. Which Indian state has a natural gas reservoir?

A. Madhya Pradesh

B. Uttar Pradesh

C. Maharashtra

D. Punjab

Answer: C



Watch Video Solution

13. What is the chemical formula of methane?

A. CH_2

B. CH_4

C. C_2H_4

D. C_2H_8

Answer: B



Watch Video Solution

14. Which factor is considered when separating different constituents of crude oil?

A. Density

B. Reactivity

C. Boiling point

D. Melting point

Answer: C



Watch Video Solution

15. Which of these fuels is also called black gold?

A. coal tar

B. Wood

C. Petroleum

D. Natural gas

Answer: C



Watch Video Solution

16. What does LPG stands for?

A. Liquefied Plant Gas

B. Loosened Polarized Gas

C. Liquefied Petroleum Gas

D. Loosened Petroleum Gas

Answer: C



Watch Video Solution

17. Which of these fuels is not a fossil fuel?

A. Coal

B. Wood

C. Petroleum

D. Natural gas

Answer: B



Watch Video Solution

18. Which is the correct energy conversion during the burning of a fuel?

- A. Heat into sound energy
- B. Chemical into heat energy
- C. Heat into chemical energy
- D. Chemical into sound energy

Answer: B



Watch Video Solution

19. Which of these is renewable resource?

A. Coal

B. Wind

C. Petroleum

D. Natural gas

Answer: B



Watch Video Solution

20. Which of these is a non renewable resource?

A. Coal

B. Wind

C. Water

D. Sunlight

Answer: A



21. Which type of resources is available in limited quantities and will take thousands of years to replenish?

- A. Natural resources
- B. Renewable resources
- C. Man made resources
- D. Non renewable resources

Answer: D



[Watch Video Solution](#)

22. Which type of resources would not exhaust over a long period of time continuous usage?

- A. Natural resources
- B. Renewable resources
- C. Man made resources
- D. Non renewable resources

Answer: B



[Watch Video Solution](#)

23. Anything that humans use for their benefit is called _____

- A. opportunity
- B. expedition
- C. initiative
- D. resource

Answer: D



Watch Video Solution

24. Which of these is a man made resource?

A. Brass

B. Water

C. Rock

D. Soil

Answer: A



Watch Video Solution

25. Which of these is a natural resource?

A. Plastic

B. Nylon

C. Steel

D. Wind

Answer: D



Watch Video Solution

26. Which of these components present in the air is a pollutant?

A. Oxygen

B. Water vapour

C. Carbon dioxide

D. Sulphur dioxide

Answer: D



Watch Video Solution

27. Which of these practices can lead to wastage of fuels?

A. Covering utensils while cooking

B. Switching off lights and fans when not is use

C. Using public transport and bicycles for travelling

D. Using conventional bulbs instead of CFLs and LEDs

Answer: D



Watch Video Solution

28. Which of these is not a harmful gas released during the burning of fossil fuels such as petrol and diesel?

A. O_2

B. CO

C. CO_2

D. SO_2

Answer: A



Watch Video Solution

29. Manish's car runs on CNG (Compressed Natural Gas). In case of a gas leak in the car, how would he identify it?

A. He would be able to see black coloured gas in the car.

B. He would be able to smell a strong odour of rotten eggs.

C. He would be able to see dust particles floating inside the car.

D. He would be able to sense a bitter taste on his tongue inside the car.

Answer: B



Watch Video Solution

30. A certain company has just acquired an oil well and a coal mine in two different regions

in India. Which of these situations will the company most likely witness?

A. Both petroleum and natural gas will be found in the oil well.

B. Both petroleum and natural gas will be found in the mine.

C. Both coal and natural gas will be found in the oil well.

D. Both coal and petroleum will be found in the mine.

Answer: A



Watch Video Solution

31. Which of these is not a characteristic of natural gas?

A. It is foul smelling.

B. It is non polluting

C. It is higher than air.

D. It is highly flammable

Answer: A



Watch Video Solution

32. Raman has just started a factory for manufacturing wax paper. Which of these raw materials would he need in his factory?

A. Bitumen

B. Naphtha

C. Gasoline

D. Lubricating oil

Answer: D



Watch Video Solution

33. 100 ml of each of the following substances are simultaneously heated on separate Bunsen burners.

kerosene, lubricating oil, diesel, gasoline

Which of the above four substances will vaporise first?

A. Diesel

B. Gasoline

C. Kerosene

D. Lubricating oil

Answer: B



Watch Video Solution

34. Choose the correct order, from top to bottom, in which one would find petroleum, water and natural gas within a reservoir.

A. Water → petroleum → natural gas

B. Natural gas → petroleum → water

C. Petroleum → natural gas → water

D. Water → natural gas → petroleum

Answer: B



Watch Video Solution

35. In which of these places in India are you likely to find a petroleum reservoir?

A. Gujarat

B. Manipur

C. West Bengal

D. Uttar Pradesh

Answer: A



Watch Video Solution

36. Which of these is not a characteristic of petroleum?

A. It is also called black gold.

B. it is also called crude oil.

C. It is an odourless liquid.

D. It is dark coloured.

Answer: C



Watch Video Solution

37. In the process of destructive distillation, up to what temperature is coal heated?

A. $100^{\circ}C$

B. $400^{\circ}C$

C. $1000^{\circ}C$

D. $2000^{\circ}C$

Answer: C



Watch Video Solution

38. Which of these substances is obtained in a solid state during the destructive distillation of coal?

A. Coke

B. Coal tar

C. Coal gas

D. Ammoniacal liquor

Answer: A



Watch Video Solution

39. While working in a coal mine, Farha's father found a piece of coal, which he brought back

home. It was very hard and had a metallic lustre. Which type of coal could this be?

A. Peat

B. Lignite

C. Anthracite

D. Bituminous coal

Answer: C



Watch Video Solution

40. A certain type of coal is found to have 75% carbon in it. Which type of coal could this most probably be?

A. Peat

B. Lignite

C. Anthracite

D. Bituminous coal

Answer: D



Watch Video Solution

41. Before extraction, which of these types of coal must have been beneath the surface of the earth for the longest time?

A. Peat

B. Lignite

C. Anthracite

D. Bituminous coal

Answer: C



Watch Video Solution

42. Choose the sequence that best summarises how different types of coal are formed during the carbonisation process

A. Peat → anthracite → bituminous coal
→ lignite

B. Peat → lignite → bituminous coal →
anthracite

C. Lignite → peat → anthracite →
bituminous coal

D. Lignite → bituminous coal → peat
→ anthracite

Answer: B



Watch Video Solution

43. A thermal plant in a certain region produces electricity for its adjoining areas. A part of the coal supplied to this plant is also used to obtain some other useful fuels. Which

o these fuels must be obtained from the coal
at this plant?

A. Diesel

B. Naphtha

C. Methane

D. Kerosene

Answer: C



Watch Video Solution

44. Which of these statements correctly summarises the chief properties of coal?

A. It is hard, rock like substance and is also called balck gold.

B. It is a dark coloured liquid with a foul smell and is also called black gold.

C. It is a hard, rock like substance and mainly contains carbon, hydrogen and oxygen.

D. All of these

Answer: C



Watch Video Solution

45. Which of these fuels is not formed from the remains of dead plants and animals, over millions of years, beneath the surface of the earth?

A. Coal

B. Wood

C. Petroleum

D. Natural gas

Answer: B



Watch Video Solution

46. Which of these statements is not true regarding non renewable resources?

A. They can be replenished

B. They are natural resources

C. They can be used as fuels.

D. They include both coal as well as natural gas.

Answer: A



Watch Video Solution

47. To generate electricity for a small village, Arun wants to use a resource that will never

exhaust and can be used over and over again.

Which of these resources should he use?

A. Coal

B. Sunlight

C. Petroleum

D. Natural gas

Answer: B



Watch Video Solution

48. Which of these resources is not available to us naturally?

A. Wind

B. Water

C. Nylon

D. Sunlight

Answer: C



Watch Video Solution