

Chemistry Worksheets Class 8 on Chapter 5 Coal and Petroleum with Answers - Set 3

Q-1: Which of the following gases is not emitted when fossil fuels are burned?

- a) SO_2
- b) CO_2
- c) O_2
- d) NO_2

Answer: c) O_2 is not emitted when fossil fuels are burned.

Q-2: Identify the following:

- a) A least polluting fuel for vehicles.
- b) A constituent of petroleum used in vaseline.
- c) A fuel obtained from the dead remains of vegetation.
- d) A coal useful product obtained during the manufacturing of coke from coal.
- e) A fossil fuel obtained from the organisms living in the sea.

Answers:

- a) CNG
- b) Paraffin wax
- c) Fossil Fuel
- d) Coal Gas
- e) Petroleum

Q-3: Which of the following fuels has the highest calorific value?

- a) Solid Fuels
- b) Liquid Fuels
- c) Gaseous Fuels
- d) All of the above

Answer: c) Gaseous fuels have the highest calorific value. When burnt, they produce a great deal of energy.

Q-4: Which method is used to manufacture coal-based products that are useful?

- a) Winding
- b) Centrifugation
- c) Destructive Distillation
- d) Chromatography

Answer: c) Destructive Distillation is used to manufacture coal-based products (coal, coal gas, coal tar) that are useful.

Q-5: The petroleum product which is not used as a fuel is

- a) Petrol
- b) Kerosene
- c) Diesel
- d) Lubricating oil

Answer: d) Lubricating oil is not used as a fuel.

Q-6: How does energy benefit us? Explain.

Answer: Energy can be used for a variety of purposes, including:

- We require fuel energy to generate power and electricity for vehicles, refrigerators, computers, televisions etc.
- Energy is required on construction sites to build buildings, houses, and other structures.
- We require energy to cook our food and for other domestic purposes.
- We require energy to manufacture fibres, plastics, paints, cosmetics, and other products.
- All factories, industries, and agricultural devices rely on power to run their machines.

Q-7: Fill in the blanks:

- a) Bitumen is a _____ product.
- b) Limestone is a _____ resource.
- c) Carboniferous age is the time period required to complete the process of _____.
- d) Fuel is burned to produce _____.
- e) The major components of LPG are _____ and _____.

Answer:

- a) Petroleum
- b) Non-exhaustible
- c) Carbonisation
- d) Energy
- e) butane, propane

Q-8: What do you mean when you say refining and petroleum refinery?

Answer: Refining is the process of separating various components or fractions of petroleum. This process takes place in a petroleum refinery.

Q-9: Why is coal also referred to as a fossil fuel?

Answer: Coal is also known as a fossil fuel because it was formed from the remains of vegetation. And, like fossil fuels, coal requires millions of years to produce..

Q-10: Match the items in column I with the appropriate items in column II.

Column I	Column II
P) Anthracite	i) Acrylic manufacturing
Q) Oil Refinery	ii) Fuel for barbeque grills
R) Solar energy	iii) 60-80% carbon content
S) LPG	iv) Mumbai
T) Petrochemicals	v) Renewable Resource
U) Bituminous	vi) 98% carbon content

Answer: P)-vi, Q)- iv), R)-v), S)- ii), T)-i), U)-iii)

Q-11: Discover the locations of India's major thermal power plants. What could be the reasons for their presence in those locations?

Answer: India's major thermal power plants are in Uttar Pradesh, Gujarat, West Bengal, Odisha, Chhattisgarh, and Madhya Pradesh. The presence of the majority of coal mines nearby explains why they are located in those areas.

Q-12: Can forests aid in the reduction of pollution caused by the use of fossil fuels? If so, how?

Answer: It does not eliminate pollution completely, but it does reduce some of it, such as carbon dioxide emitted during the combustion of fossil fuels.

Q-13: Indicate whether the following statements are true or false.

- a) Naphthalene balls are obtained from coal gas.
- b) Petroleum is immiscible in water.
- c) Nowadays, coal gas is used as a source of heat.
- d) Petrol is used as a fuel for electric generators.
- e) Coal Tar is a dark oily liquid.

Answers:

- a) False, naphthalene balls are obtained from coal tar.

- b) True.
- c) True
- d) False, Diesel is used as a fuel for electric generators.
- e) False, Petroleum is a dark oily liquid.

Q-14: Which of the following is not a gaseous fuel?

- a) Coal gas
- b) Coal Tar
- c) Acetylene
- d) Kerosene

Answer: b) Coal Tar is a black, thick liquid.

Q-15: Explain the carbonisation process in the formation of coal.

Answer: The earth had dense forests in low lying wetland areas about 300 million years ago. These forests were buried beneath the soil as a result of natural processes such as flooding. They were compressed as more soil was deposited on top of them. As they sank deeper and deeper, the temperature rose as well. Dead plants were slowly converted to coal under high pressure and high temperature. Because coal is primarily composed of carbon, the slow process of converting dead vegetation into coal is known as carbonisation. Coal is also known as a fossil fuel because it was formed from the remains of vegetation.

Q-16: Ethyl Mercaptan is added to LPG before it leaves the main storage terminals to alert you to

- a) Leakage
- b) Burning
- c) Gas stove lid open
- d) Less available gas

Answer: a) Leakage

Explanation: Propane and butane make up LPG gas, which is odourless when consumed in its pure form. In fact, the stench of a completely other substance called ethyl mercaptan is what you smell when there is a leak. When the gas leaves the primary storage terminals, it is mixed with this material.

Q-17: Black gold is _____.

- a) A type of gold that turns black when burned.
- b) 18-carat gold
- c) Petroleum
- d) Gold sold on the black market.

Answer: c) Petroleum is also known as black gold.

Q-18: Which of the following energy sources is not renewable?

- a) Water
- b) Oil
- c) Wind
- d) Sun

Answer: b) Oil

Explanation: Non-renewable energy is a source of energy that will deplete over time. Examples include oil, coal, natural gas and petroleum.

Q-19: Name two products derived from the destructive distillation of coal. What is the byproduct of this process? Give one main application for this residue.

Answer: Coal gas and coal tar are two important byproducts of the destructive distillation of coal. Coke is the byproduct of this process. Coke is primarily used as a reducing agent in metal extraction.

Q-20: Shyam prefers to use a carpool to get to college. In other instances, he prefers to use public transportation over his own vehicle.

- (a) What advantages do carpooling offer?
- (a) Which mode of transportation do you believe is most effective for short distances?
- (c) What steps can we take to cut back on our own use of fossil fuels?
- (d) What Shyam values are displayed here?

Answer:

a)

- Cost effective
- Reduces Pollution
- Reduces traffic on roads
- Saves fossil fuels

b) Two Wheelers

c)

1. By using fewer plastics, which are made from fossil fuels.
2. By using power wisely, as the majority of it is produced by burning coal.
3. By carpooling. As cars use petrol or diesel (a form of fossil fuel).
4. Switching engine off at red lights.

d) Shyam is considerate of the environment, works diligently, and is eco-friendly.