

O Level Pure Chemistry MCQs

Atmosphere Test 1.0

Q1

Which correctly matches the air pollutant to its source and effect?

	air pollutant	source	effect
A	carbon monoxide	combustion of fuels	global warming
B	nitrogen dioxide	car engines	acid rain
C	ozone	photochemical smog	depletes the ozone layer
D	sulfur dioxide	lightning activity	acid rain

Q2

Which one of the following pairs of gases are common pollutants of the atmosphere?

- A nitrogen and sulfur dioxide
- B chlorine and hydrogen
- C carbon dioxide and ammonia
- D sulfur dioxide and nitrogen dioxide

Q3

Which one of the following explains why carbon monoxide is poisonous?

- A It is oxidised to carbon dioxide in the lungs.
- B It is reduced to carbon in the lungs.
- C It combines with haemoglobin.
- D It is inflammable.

Q4

Which one of these pollutant gases in the air is mainly responsible for the greenhouse effect?

- A sulfur dioxide
- B carbon dioxide
- C carbon monoxide
- D nitrogen dioxide

Q5

To reduce the effect of acid rain, the best way is to

- A introduce more ammonia into the atmosphere.
- B ensure all power stations using fossil fuels adopt flue gas desulfurisation.
- C stop using fossil fuels.
- D enforce a total ban coal-firing power stations.

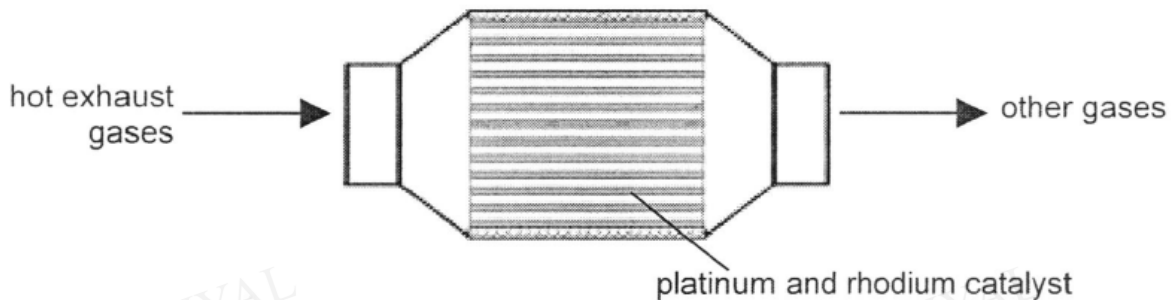
Q6

In what way do methane, nitrogen dioxide and chlorofluorocarbons affect the atmosphere and the environment?

	methane	nitrogen dioxide	chlorofluorocarbons
A	depletion of ozone layer	greenhouse gas	acid rain
B	acid rain	global warming	depletion of ozone layer
C	greenhouse gas	acid rain	depletion of ozone layer
D	depletion of ozone layer	acid rain	global warming

Q7

The diagram below represents a section of a catalytic converter in the exhaust system of a car.



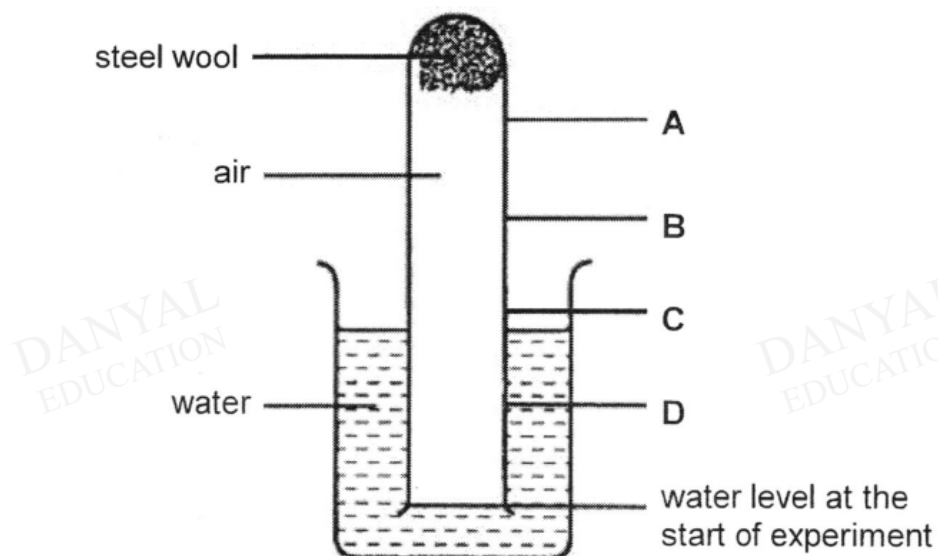
Which processes take place in this catalytic converter?

- I. Carbon monoxide and hydrocarbons react together.
- II. Carbon monoxide and nitrogen oxides react together.
- III. Platinum and rhodium catalyse redox reactions.

- A I and II
- B I and III
- C II and III
- D I, II and III

Q8

The diagram shows a ball of steel wool placed inside the end of a test tube. The test tube is inverted in a beaker of water, trapping air inside.



What is the level of water after several days?

Q9

Biodiesel, made from vegetable oil, can be used as a fuel for vehicles. Even though carbon dioxide is released when biodiesel is combusted, scientists still claim that biodiesel is a carbon neutral fuel.

Which is the basis for this claim?

- A Biodiesel is not a carbon compound.
- B Biodiesel produces less carbon dioxide when it burns.
- C Plants release carbon dioxide during respiration.
- D Plants take up carbon dioxide during photosynthesis.

Q10

Which gas will not be removed from the exhaust gas of a petrol powered car by its catalytic converter?

- A carbon dioxide
- B carbon monoxide
- C nitrogen dioxide
- D unburnt hydrocarbons

Answers

Atmosphere Test 1.0

Q1 B

Q2 D

Q3 C

Q4 B

Q5 B

Q6 C

Q7 C

Q8 D

Q9 D

Q10 A

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