

CHEMISTRY

BOOKS - CBSE COMPLEMENTARY MATERIAL CHEMISTRY (HINGLISH)

ENVIRONMENTAL CHEMISTRY

Multiple Choice Questions Mcq

1. Which of the following is not the consequence of global warming?

- A. Increase in average temperature of Earth.
- B. Melting of Himalayan glaciers
- C. Rise in sea level
- D. Eutrophication

Answer: D



2. Which of the following statement is incorrect?

A. Oxidize of Nitrogen in atmosphere can cause depletion of Ozone layer

B. Ozone absorbs infrared rays

C. Depletion of ${\cal O}_2$ is due to its chemical reaction with halo alkanes

D. None of these

Answer: B

3. Which of the following is/are the hazardous pollutant(s) present in automobile exhaust gases?

(i) N_2 (ii) CO

(iii) CH_4 (iv) Oxides of nitrogen

A. ii and iii

B. I and ii

C. ii and iv

D. I and iii

Answer: C



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4. Which of the following gas causes green house effect to maximum extent?

A.
$$CH_4$$

B. Water vapour

$$\mathsf{C}.\,N_2O\,CO_2$$

D. CO_2

Answer: D



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- 5. The lowest region of atmosphere is
 - A. Stratosphere
 - B. Troposphere
 - C. Mesosphere
 - D. Hydrosphere

Answer: B

6. Classical smog occurs in places of :

A. Excess of NO_2

B. Warm dry climate

C. Cool humid climate

D. All of these

Answer: C



7. When huge amount of sewage is dumped into a river the BOD will:

A. Will increase

B. Will remain unchanged

C. Will in decrease

D. May increase or decrease

Answer: A



8. Which of the following practices will not come under Green chemistry?

A. Use of CO_2 as solvent instead of CI_2

B. Use of $H_2O_2 \in steadof$ CI_2`

C. Synthesis of ethanal from ethane in one step

D. Use of tetrachloroethene as a solvent for dry cleaning

Answer: D

- 9. Eutrophication causes reduction in
 - A. Dissolved salts
 - B. Dissolved oxygen
 - C. Nutrients
 - D. All of these

Answer: D



10. SO_2 and NO_2 cause pollution by increasing

- A. Acidity
- B. Alkalinity
- C. Buffer action
- D. Both (a) and C

Answer: A



Fill In The Blanks

1. Three substances normally considered as primary pollutant are _____,___,and,____.



2. Sulphur dioxide is mainly produced by the burning of _____>



3. BOD stands for
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4. The single plant nutrient mainly responsible
for eutrophication is
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5. The lowest layer of atmosphere is the>
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6. A crucially important species formed by oxygen in stratosphere is _____.



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7. _____ is a greenhouse gas



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8. A major class of organic halides that are thought to pose a threat to stratospheric

ozone are		
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9. The component that distinguishes classical smog from photochemical smog is		
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10. Carbon dioxide traps heat in the atmosphere. This is called the		
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True And False Type Questions

1. The troposphere is the region above the stratosphere.(T/F)



2. Dust, mist, fumes, smoke and smog are particulate pollutants.(T/F)



3. Carboxyhaemoglobin is less stable than oxyhaemoglobin.(T/F)



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4. Ozone occurs naturally in the troposphere.



5. Plants such as Pinus, Juniparus, Pyrus and Vitis metabolize nitrogen oxides



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6. Clean water should have BOD of 17 ppm or more.(T/F)



7. Photochemical smog is a mixture of oxidising pollutants.(T/F)



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8. The exhaust from jet aeroplanes contains nitric oxide, which can destroy the ozone layer. (T/F)



9. PAN is one of the constituents of photochemical smog.(T/F)



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10. DDT is non-biodegradable and persistent.(T/F)



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Match The Columns

1. Match the following columns

Column I	Column II
a. CO ₂	 a gas produced by the partial combustion of many fuels
b. CO	a gas that occurs naturally in the atmosphere and which is needed for photosynthesis
c. O ₃	iii. a dangerous gaseous pollutant with corrosive properties formed by combustion of fossil fuels.
d. SO ₂	iv. an allotrope of oxygen found in the upper atmosphere



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2. Match the following columns

Column I

- a. Phosphate fertilisers in water
- b. Methane in air
- c. PAN
- d. Nitrogen oxides in air

Column II

- i. BOD level of water increases
- ii. Acid rain
- iii. Global warming
- iv. Photochemical oxidant



Assertion Reason Type Questions

1. Assertion (A): The pH of acid rain is less than 5.6.

Reason (R): Carbon dioxide present in the atmosphere dissolves in rain water and forms carbonic acid. a)Both A and R are correct and R is the correct explanation of A. b).Both A and R are correct but R is not the correct explanation of A. c)Both A and R are not correct. d)A is not correct but R is correct.

- A. Both Assertion and Reason are correct and Reason is the correct explanation of Assertion B. Both Assertion and Reason are correct but Reason is not the correct explanation of Assertion. C. Both Assertion and Reason are incorrect D. Assertion is not correct but Reason is
 - correct.

Answer: b



2. Assertion: Photochemical smog is oxidising in nature.

Reason: Photochemical smog contains NO_2 and O_3 which are formed during the sequence of reactions.



3. Assertion: If BOD level of water in a reservoir is less than 5ppm, it is highly polluted.

Reason: High biological oxygen demand means low activity of bacteria in water



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4. Assertion: Ozone is destroyed by solar radiation in upper atmosphere.

Reason: Thinning of the ozone layer allows

excessive UV radiations to reach the surface of



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5. Assertion: Carbondioxide is an of the important greenhouse gas.

Reason: It is largely produced by respiratory function of animals and plants.



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One Word Type Questions

1. Name the gas which reacts with haemoglobin in blood.



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2. In which part of atmosphere is ozone layer present?



3. Besides CO_2 name one other green house gas.



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4. Which acid is most abundant in acid rain?



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5. Name the gas whose release was responsible for Bhopal gas tragedy.



6. What is the nature of photochemical smog?



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7. Write full form of BOD.



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8. What is the lowest region of the atmosphere which extends upto a height of 10

km from sea level? **Watch Video Solution** 9. Name the gas which is produced by the incomplete combustion of gasoline. **Watch Video Solution** 10. What does CFC stand for? **Watch Video Solution**

1 Mark Questions

1. Name two gaseous pollutants.



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2. What is the size range of particulates?



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3. What are primary pollutants?



4. Name two greenhouse gases.



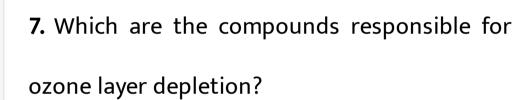
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5. What is the composition of photochemical smog?



6. What is the composition of classical smog?

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8. Name the pollutants which has affected Taj Mahal.



9. Name two strong acids present in acid rain.



10. What is PAN?



11. Name two sources of phosphate pollution.



12. When a huge amount of sewage is dumped into a river, what will be the effect on BOD?



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13. How is NO formed in atmosphere?



14. In which season the depletion of ozone on Antartica takes place and when it is replenished.



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15. Define acid rain.



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2 Marks Questions

1. Oxygen plays a key role in the troposphere while ozone in stratosphere. Explain.



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2. What is Eutrophication?



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3. Define BOD



4. What is the importance of measuring BOD of a water body?



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5. Why does water covered with excessive algal growth become polluted ?



6. A person was using water supplied by Municipality. Due to shortage of water the started underground water. He felt laxative effect. What could be the cause?



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7. What do you understand by the term Green chemistry?



8. Give two examples each of biodegradable and non-biodegradable waste.



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9. List few ways to control photochemical smog.



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3 Marks Questions

1. Give three harmful effects of oxides of sulphur.



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2. What is Global warming? What is its cause?



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3. What is photochemical smog and what are its harmful effects?



4. How is classical smog different from photochemical smog?



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5. State briefly the reactions causing ozone layer depletion in the stratosphere.



6. How does rain water get contaminated with acidic impurities?



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7. Discuss the harmful effects of acid rain.



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8. Suggest any four methods for waste management



5 Marks Questions

1. What is Green house effect? How is it responsible for global warming?



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2. How can you apply green chemistry for the following ?

- (a) To control photochemical smog.
- (b) To avoid use of halogenated solvents in dryclening and that of chlorine in bleaching.
- (c) to reduce use of synthestic detergents.
- (d) To reduce the consumption of petrol and diesel.



Unit Test

1. The lowest region of atmosphere is

B. Troposphere
C. Mesosphere
D. Hydrosphere
Answer:
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2. Classical smog occurs in places of:
A. Excess of NO_2

A. Stratosphere

- B. Warm dry climate
- C. Cool humid climate
- D. All of these

Answer:



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3. Name two greenhouse gases..



4. A major class of organic halides that are thought to pose a threat to stratospheric ozone are .



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5. The single plant nutrient mainly responsible for eutrophication is _____.



6. How is classical smog different from photochemical smog?



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7. Define BOD. What is the importance of measuring BOD of a water body?



8. How does rain water get contaminated with acidic impurities? Write one harmful effect of acid rain.



- **9.** How can you apply green chemistry for the following ?
- (a) To control photochemical smog.
- (b) To avoid use of halogenated solvents in dryclening and that of chlorine in bleaching.

(c) to reduce use of synthestic detergents.

(d) To reduce the consumption of petrol and diesel.

