EdLoop JEE

CHEMISTRY · JEE MAIN

Environmental Chemistry

Previous Year Questions with answers

119 questions · **113** papers · **2003–2024** · newest paper first

Step-by-step solutions for every question: free in the EdLoop JEE app (Google Play) · pyq.edloop.in

What is in this PDF: every Environmental Chemistry question we hold from past JEE Main and AIEEE papers, with its options and answer. Where an answer comes from a source other than the official final key, it says so next to the answer.

Step-by-step solutions for every question are free in the EdLoop JEE app (Google Play) and on app.edloop.in. More chapters: pyq.edloop.in/free-pdfs/

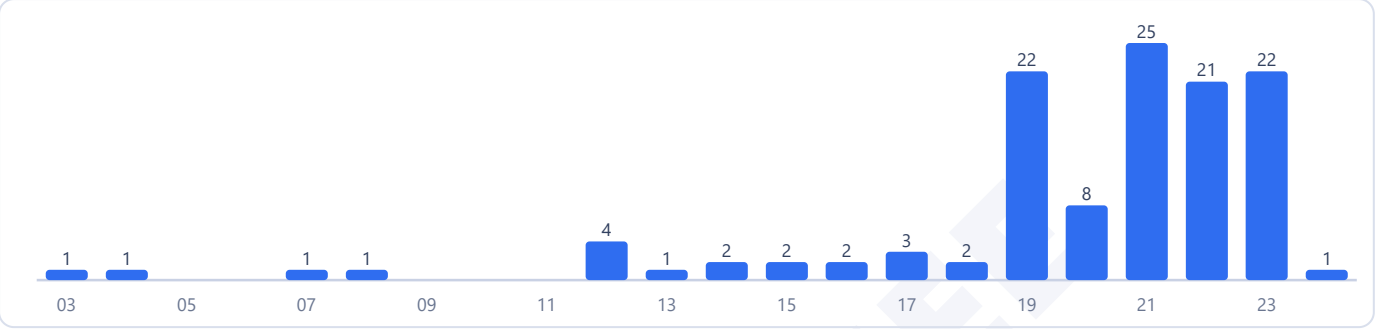
EdLoop

Chapter at a glance

2.2%	119	93 of 162	119 / 0
of Chemistry questions, 2019–2026	questions, 2003–2024	papers asked it, 2019–2026	MCQ / numerical, 2003–2024

Trend. Falling: 0.7 questions per paper in 2022–2024 against 0.9 in 2019–2021.

Questions per year



Counts are the questions we hold: 119 in 113 papers. No question in this chapter was found repeated across papers.

Most-asked topics in this chapter (2003–2024)

Pollution	119

How often it comes up

Environmental chemistry covers pollutants and atmospheric chemistry and was formerly in the Class 11 curriculum before being removed in 2024, standing at rank 23 of 31 chapters with a 2.2% share of the chemistry section. Across 2019 to 2026, Environmental Chemistry contributed 99 questions across 162 exam papers, delivering a 2.2% share of the chemistry section and standing at rank 23 of 31 chapters. During the 2002 to 2018 window, it accounted for 20 questions across 38 papers with a 1.5% share. In the 2024 to 2026 period, it recorded 1 question across 58 papers, capturing a 0.1% share. Its testing trajectory has trended down following curriculum rationalization.

The chapter was not asked in 2025 or 2026, though 1 isolated question appeared in 2024 before full syllabus alignment took effect. Between 2019 and 2026, it averaged 0.6 questions per paper. Numerical answer questions are absent here, with 0 numerical answer questions recorded across the entire 2019 to 2026 timeframe.

Most-asked topics

Historical test questions group under one primary topic:

- Pollution: Encompasses 119 total questions (99 during 2019 to 2026), last asked in 2024. Core themes investigated the chemical differences between classical smog (reducing, SO_2) and photochemical smog (oxidizing, NO_2, ozone, PAN), free radical breakdown of ozone by chlorofluorocarbons in the stratosphere, permissible limits of ions in drinking water (fluoride, lead, nitrate causing methemoglobinemia), and BOD thresholds for clean versus polluted water.

What the questions look like

Exam items were purely conceptual, testing factual accuracy regarding environmental mechanisms. Regular patterns asked students to distinguish oxidizing smog from reducing smog based on primary chemical constituents, sunlight requirements, and temperature conditions.

Water quality problems tested standard values such as clean water BOD (less than 5 ppm) or health complications resulting from excessive nitrate intake (blue baby syndrome) and high fluoride concentrations exceeding prescribed

thresholds.

How to practise it

Because this unit has been excised from active JEE Main papers, adjust study priorities appropriately:

1. Prioritize active chapters: Direct revision time toward active inorganic and physical chemistry chapters that carry substantial marks. 2. Note basic water quality parameters: Knowing why nitrate causes methemoglobinemia and fluoride protects dental enamel at 1 ppm remains useful general chemical knowledge. 3. Understand free radical ozone depletion: The sequence where chlorine free radicals catalyze ozone decomposition connects with general radical reaction mechanisms.

EdLoop JEE

Q1 JEE Main 2024 · 9 Apr · Shift 1 MCQ

The F^- ions make the enamel on teeth much harder by converting hydroxyapatite (the enamel on the surface of teeth) into much harder fluoroapatite having the formula.

(A) $[3\,(Ca_3(PO_4)_2)\cdot Ca(OH)_2]$
(B) $[3\,(Ca_3(PO_4)_3)\cdot CaF_2]$
(C) $[3\,(Ca_2(PO_4)_2)\cdot Ca(OH)_2]$
(D) $[3\,(Ca_3(PO_4)_2)\cdot CaF_2]$

Answer: (D) $[3\,(Ca_3(PO_4)_2)\cdot CaF_2]$ · Key from source paper

Q2 JEE Main 2023 · 15 Apr · Shift 1 MCQ

The possibility of photochemical smog formation will be minimum at

(A) Srinagar, Jammu and Kashmir in January
(B) Kolkata in October
(C) Mumbai in May
(D) New-Delhi in August (Summer)

Answer: (A) Srinagar, Jammu and Kashmir in January · Key from source paper

Q3 JEE Main 2023 · 13 Apr · Shift 1 MCQ

The radical which mainly causes ozone depletion in the presence of UV radiations is :

(A) $Cl^{\cdot}$
(B) $NO^{\cdot}$
(C) $\dot{O}H$
(D) $CH_3^{\cdot}$

Answer: (A) $Cl^{\cdot}$ · Key from source paper

Q4 JEE Main 2023 · 13 Apr · Shift 2 MCQ

Which of the following are the Green house gases?
A. Water vapour
B. Ozone
C. I_2
D. Molecular hydrogen
Choose the most appropriate answer from the options given below :

(A) A and D only
(B) B and C only
(C) A and B only
(D) C and D only

Answer: (C) A and B only · Key from source paper

Q5 JEE Main 2023 · 12 Apr · Shift 1 MCQ

Match List I with List II
List I
A. Nitrogen oxides in air
B. Methane in air
C. Carbon dioxide
D. Phosphate fertilisers in water
List II
I. Eutrophication
II. pH of rain water becomes 5.6
III. Global warming
IV. Acid rain
Choose the correct answer from the options given below :

(A) A-II, B-III, C-I, D-IV
(B) A-I, B-II, C-III, D-IV
(C) A-IV, B-III, C-II, D-I
(D) A-IV, B-II, C-III, D-I

Answer: (C) A-IV, B-III, C-II, D-I · Key from source paper

Q6 JEE Main 2023 · 11 Apr · Shift 1 MCQ

Given below are two statements :
Statement-I : If BOD is 4 ppm and dissolved oxygen is 8 ppm , then it is a good quality water.
Statement-II : If the concentration of zinc and nitrate salts are 5 ppm each, then it can be a good quality water.
In the light of the above statements, choose the most appropriate answer from the options given below :

(A) Statement I is correct but Statement II is incorrect
(B) Statement I is incorrect but Statement II is correct
(C) Both the statements I and II are incorrect
(D) Both the statements I and II are correct

Answer: (D) Both the statements I and II are correct · Key from source paper

Q7 JEE Main 2023 · 10 Apr · Shift 1 MCQ

Match List I with List II

List I Industry List II Waste Generated

(A) Steel plants (I) Gypsum

(B) Thermal power plants (II) Fly ash

(C) Fertilizer Industries (III) Slag

(D) Paper mills (IV) Bio-degradable wastes

Choose the correct answer from the options given below :

(A) A - III, B - II, C - I, D - IV

(B) A - III, B - IV, C - I, D - II

(C) A - II, B - III, C - IV, D - I

(D) A - IV, B - I, C - II, D - III

Answer: (A) A - III, B - II, C - I, D - IV · Key from source paper

Q8 JEE Main 2023 · 10 Apr · Shift 2 MCQ

The delicate balance of CO_2 and O_2 is NOT disturbed by

(A) Respiration

(B) Burning of coal

(C) Deforestation

(D) Burning of petroleum

Answer: (A) Respiration · Key from source paper

Q9 JEE Main 2023 · 8 Apr · Shift 1 MCQ

Match List I with List II

List-I List-2

Species Maximum allowed concentration in ppm in drinking water

A F^- I < 50 ppm

B SO_4^{2-} II < 5 ppm

C NO_3^- III < 2 ppm

D Zn IV < 500 ppm

Choose the correct answer from the options given below.

(A) A-I, B-II, C-III, D-IV

(B) A-II, B-I, C-III, D-IV

(C) A-IV, B-III, C-II, D-I

(D) A-III, B-II, C-I, D-IV

Answer: (D) A-III, B-II, C-I, D-IV · Key from source paper

Q10 JEE Main 2023 · 8 Apr · Shift 2 MCQ

Which of these reactions is not a part of breakdown of ozone in stratosphere?

(A) $2\,\dot{\mathrm{C}}\mathrm{lO(g)} \rightarrow \mathrm{ClO_2(g)} + \dot{\mathrm{C}}\mathrm{l(g)}$

(B) $\mathrm{Cl\dot{O}(g)} + \mathrm{O(g)} \rightarrow \mathrm{O_2(g)} + \dot{\mathrm{C}}\mathrm{l}$

(C) $\dot{\mathrm{C}}\mathrm{l(g)} + \mathrm{O_3(g)} \rightarrow \mathrm{O_2(g)} + \mathrm{Cl\dot{O}(g)}$

(D) $\mathrm{CF_2Cl_2(g)} \xrightarrow{\mathrm{uv}} \dot{\mathrm{C}}\mathrm{l(g)} + \dot{\mathrm{C}}\mathrm{F_2Cl(g)}$

Answer: (A) $2\,\dot{\mathrm{C}}\mathrm{lO(g)} \rightarrow \mathrm{ClO_2(g)} + \dot{\mathrm{C}}\mathrm{l(g)}$ · Key from source paper

Q11 JEE Main 2023 · 6 Apr · Shift 1 MCQ

The possibility of photochemical smog formation is more at

(A) Marshy lands

(B) Industrial areas

(C) Himalayan villages in winter

(D) The places with healthy vegetation

Answer: (B) Industrial areas · Key from source paper

Q12 JEE Main 2023 · 6 Apr · Shift 2 MCQ

The group of chemicals used as pesticide is

(A) Aldrin, Sodium Chlorate, Sodium arsinite

(B) DDT, Aldrin

(C) Sodium chlorate, DDT, PAN

(D) Dieldrin, Sodium arsinite, Tetrachloroethene

Answer: (B) DDT, Aldrin · Key from source paper

Q13 JEE Main 2023 · 1 Feb · Shift 1 MCQ

How can photochemical smog be controlled?

(A) By using tall chimneys

(B) By complete combustion of fuel

(C) By using catalytic converters in the automobiles/industry

(D) By using catalyst

Answer: (C) By using catalytic converters in the automobiles/industry · Key from source paper

Q14 JEE Main 2023 · 1 Feb · Shift 2 MCQ

The industrial activity held least responsible for global warming is :

(A) manufacturing of cement
(B) steel manufacturing
(C) Electricity generation in thermal power plants.
(D) Industrial production of urea

Answer: (D) Industrial production of urea · Key from source paper

---

Q15 JEE Main 2023 · 31 Jan · Shift 1 MCQ

Identify X, Y and Z in the following reaction. (Equation not balanced)

$\dot{\mathrm{Cl}}\mathrm{O} + \mathrm{NO_2} \rightarrow \underline{X} \xrightarrow{\mathrm{H_2O}} \underline{Y} + \underline{Z}$

(A) X = $\mathrm{ClONO_2}$, Y = HOCl, Z = $\mathrm{NO_2}$
(B) X = $\mathrm{ClNO_2}$, Y = HCl, Z = $\mathrm{HNO_3}$
(C) X = $\mathrm{ClONO_2}$, Y = HOCl, Z = $\mathrm{HNO_3}$
(D) X = $\mathrm{ClNO_3}$, Y = $\mathrm{Cl_2}$, Z = $\mathrm{NO_2}$

Answer: (C) X = $\mathrm{ClONO_2}$, Y = HOCl, Z = $\mathrm{HNO_3}$ · Key from source paper

---

Q16 JEE Main 2023 · 31 Jan · Shift 2 MCQ

The normal rain water is slightly acidic and its pH value is 5.6 because of which one of the following ?

(A) $\mathrm{CO_2 + H_2O \rightarrow H_2\,CO_3}$
(B) $\mathrm{N_2O_5 + H_2O \rightarrow 2\,HNO_3}$
(C) $\mathrm{2\,SO_2 + O_2 + 2H_2O \rightarrow 2H_2\,SO_4}$
(D) $\mathrm{4\,NO_2 + O_2 + 2H_2O \rightarrow 4\,HNO_3}$

Answer: (A) $\mathrm{CO_2 + H_2O \rightarrow H_2\,CO_3}$ · Key from source paper

---

Q17 JEE Main 2023 · 30 Jan · Shift 1 MCQ

Formation of photochemical smog involves the following reaction in which A, B and C are respectively.

(i) $\mathrm{NO_2} \xrightarrow{h\nu} \mathrm{A + B}$
(ii) $\mathrm{B + O_2 \rightarrow C}$
(iii) $\mathrm{A + C \rightarrow NO_2 + O_2}$

Choose the correct answer from the options given below:

(A) O, NO and $\mathrm{NO_3^-}$
(B) O, $\mathrm{N_2O}$ and NO
(C) N, $\mathrm{O_2}$ and $\mathrm{O_3}$
(D) NO, O and $\mathrm{O_3}$

Answer: (D) NO, O and $\mathrm{O_3}$ · Key from source paper

Q18 JEE Main 2023 · 30 Jan · Shift 2 MCQ

The water quality of a pond was analysed and its BOD was found to be 4. The pond has

(A) Highly polluted water
(B) Water has high amount of fluoride compounds
(C) Very clean water
(D) Slightly polluted water

Answer: (C) Very clean water · Key from source paper

Q19 JEE Main 2023 · 29 Jan · Shift 1 MCQ

Correct statement about smog is

(A) NO_2 is present in classical smog
(B) Both NO_2 and SO_2 are present in classical smog
(C) Photochemical smog has high concentration of oxidizing agents
(D) Classical smog also has high concentration of oxidizing agents

Answer: (C) Photochemical smog has high concentration of oxidizing agents · Key from source paper

Q20 JEE Main 2023 · 29 Jan · Shift 2 MCQ

The concentration of dissolved Oxygen in water for growth of fish should be more than $\underline{X}$ ppm and Biochemical Oxygen Demand in clean water should be less than $\underline{Y}$ ppm. X and Y in ppm are, respectively.

(A) X = 6, Y = 5
(B) X = 4, Y = 8
(C) X = 4, Y = 15
(D) X = 6, Y = 12

Answer: (A) X = 6, Y = 5 · Key from source paper

Q21 JEE Main 2023 · 25 Jan · Shift 1 MCQ

Some reactions of NO_2 relevant to photochemical smog formation are
(see the figure above)
Identify A, B, X and Y

Q41. Some reactions of NO_2 relevant to photochemical smog formation are

$$NO_2 \xrightarrow{\text{Sunlight}} X + Y$$
$$\Big|\, A$$
$$B$$

Identify A, B, X and Y

(1) $X = [O], Y = NO, A = O_2, B = O_3$
(2) $X = N_2O, Y = [O], A = O_3, B = NO$
(3) $X = \frac{1}{2}O_2, Y = NO_2, A = O_3, B = O_2$
(4) $X = NO, Y = [O], A = O_2, B = N_2O_3$

(A) X = [O], Y = NO, A = O_2, B = O_3
(B) X = N_2O, Y = [O], A = O_3, B = NO
(C) X = $\frac{1}{2}O_2$, Y = NO_2, A = O_3, B = O_2
(D) X = NO, Y = [O], A = O_2, B = N_2O_3

Answer: (A) X = [O], Y = NO, A = O_2, B = O_3 · Key from source paper

Q22 JEE Main 2023 · 25 Jan · Shift 2 MCQ

A. Ammonium salts produce haze in atmosphere.

B. Ozone gets produced when atmospheric oxygen reacts with chlorine radicals.

C. Polychlorinated biphenyls act as cleansing solvents.

D. 'Blue baby' syndrome occurs due to the presence of excess of sulphate ions in water.

Choose the correct answer from the options given below:-

(A) A, B and C only
(B) B and C only
(C) A and D only
(D) A and C only

Answer: (D) A and C only · Key from source paper

Q23 JEE Main 2023 · 24 Jan · Shift 2 MCQ

Correct statement is :

(A) An average human being consumes more food than air
(B) An average human being consumes nearly 15 times more air than food
(C) An average human being consumes equal amount of food and air
(D) An average human being consumes 100 times more air than food

Answer: (B) An average human being consumes nearly 15 times more air than food · Key from source paper

Q24 JEE Main 2022 · 29 Jul · Shift 1 MCQ

Which among the following pairs has only herbicides?

(A) Aldrin and Dieldrin
(B) Sodium chlorate and Aldrin
(C) Sodium arsinate and Dieldrin
(D) Sodium chlorate and sodium arsenite.

Answer: (D) Sodium chlorate and sodium arsenite. · Key from source paper

Q25 JEE Main 2022 · 29 Jul · Shift 2 MCQ

Dinitrogen is a robust compound, but reacts at hig altitude to form oxides. The oxide of nitrogen the can damage plant leaves and retard photosynthes is

(A) NO
(B) NO_3^-
(C) NO_2
(D) NO_2^-

Answer: (C) NO_2 · Key from source paper

Q26 JEE Main 2022 · 28 Jul · Shift 1 MCQ

Given below are two statements :
Statement I : In polluted water values of both dissolved oxygen and BOD are very low.
Statement II : Eutrophication results in decrease in the amount of dissolved oxygen.
In the light of the above statements, choose the most appropriate answer from the options given below

(A) Both Statement I and Statement II are true
(B) Both Statement I and Statement II are false
(C) Statement I is true but Statement II is false
(D) Statement I is false but Statement II is true

Answer: (D) Statement I is false but Statement II is true · Key from source paper

Q27 JEE Main 2022 · 27 Jul · Shift 1 MCQ

Match List I with List II

List-I Pollutant		List-II Disease /sickness
A Sulphate (> 500 ppm)	I	Methemoglobinemia
B Nitrate (> 50 ppm)	II	Brown mottling of teeth
C Lead (> 50 ppb)	III	Laxative effect
D Fluoride (> 2 ppm)	IV	Kidney damage

Choose the correct answer from the options given below

(A) A – IV, B – I, C – II, D – III
(B) A – III, B – I, C – IV, D – II
(C) A – II, B – IV, C – I, D – III
(D) A – II, B – IV, C – III, D – I

Answer: (B) A – III, B – I, C – IV, D – II · Key from source paper

Q28 JEE Main 2022 · 27 Jul · Shift 2 MCQ

Given below are two statements:
Statement I : The non bio-degradable fly ash and slag from steel industry can be used by cement industry.
Statement II : The fuel obtained from plastic waste is lead free.
In the light of the above statements, choose the most appropriate answer from the options given below

(A) Both Statement I and Statement II are correct
(B) Both Statement I and Statement II are incorrect
(C) Statement I is correct but Statement II is incorrect
(D) Statement I is incorrect but Statement II is correct

Answer: (A) Both Statement I and Statement II are correct · Key from source paper

Q29 JEE Main 2022 · 26 Jul · Shift 1 MCQ

$\mathrm{Cl} + \mathrm{CH_4} \rightarrow \mathrm{A} + \mathrm{B}$
A and B in the above atmospheric reaction step are

(A) $\mathrm{C_2H_6}$ and $\mathrm{Cl_2}$
(B) $\dot{\mathrm{C}}\mathrm{HCl_2}$ and $\mathrm{H_2}$
(C) $\dot{\mathrm{C}}\mathrm{H_3}$ and HCl
(D) $\mathrm{C_2H_6}$ and HCl

Answer: (C) $\dot{\mathrm{C}}\mathrm{H_3}$ and HCl · Key from source paper

Q30 JEE Main 2022 · 26 Jul · Shift 2 MCQ

Match List I with List II

List-I Pollutant
A Microorganisms
B Plant nutrients
C Toxic heavy metals
D Sediment

List-II Source
I Strip mining

II Domestic sewage
III Chemical fertilizer
IV Chemical factory

Choose the correct answer from the options given below

(A) A - II, B - III, C - IV, D - I
(B) A - II, B - I, C - IV, D - III
(C) A - I, B - IV, C - II, D - III
(D) A - I, B - IV, C - III, D - II

Answer: (A) A - II, B - III, C - IV, D - I · Key from source paper

---

Q31 JEE Main 2022 · 25 Jul · Shift 1 MCQ

The photochemical smog does not generally contain

(A) NO
(B) NO_2
(C) SO_2
(D) $HCHO$

Answer: (C) SO_2 · Key from source paper

Q32 JEE Main 2022 · 25 Jul · Shift 2 MCQ

Match List I with List II.

List-I
A Sulphate
B Fluoride
C Nicotine
D Sodium arsinite

List-II
I Pesticide
II Bending of bones
III Laxative effect
IV Herbicide

Choose the correct answer from the options given below

(A) A – II, B – III, C – IV, D – I
(B) A – III, B – II, C – I, D – IV
(C) A – IV, B – III, C – II, D – I
(D) A – III, B – II, C – IV, D – I

Answer: (B) A – III, B – II, C – I, D – IV · Key from source paper

EdLoop JEE

Q33 JEE Main 2022 · 29 Jun · Shift 1 MCQ

The acid that is believed to be mainly responsible for the damage of Taj Mahal is

(A) sulfuric acid.
(B) hydrofluoric acid.
(C) phosphoric acid.
(D) hydrochloric acid.

Answer: (A) sulfuric acid. · Key from source paper

Q34 JEE Main 2022 · 29 Jun · Shift 2 MCQ

Sulphur dioxide is one of the components of polluted air. SO_2 is also a major contributor to acid rain. The correct and complete reaction to represent acid rain caused by SO_2 is :

(A) $2\,SO_2 + O_2 \rightarrow 2\,SO_3$
(B) $SO_2 + O_3 \rightarrow SO_3 + O_2$
(C) $SO_2 + H_2O_2 \rightarrow H_2\,SO_4$
(D) $2\,SO_2 + O_2 + 2H_2O \rightarrow 2H_2\,SO_4$

Answer: (D) $2\,SO_2 + O_2 + 2H_2O \rightarrow 2H_2\,SO_4$ · Key from source paper

Q35 JEE Main 2022 · 28 Jun · Shift 1 MCQ

Which amongst the following is not a pesticide?

(A) DDT
(B) Dieldrin
(C) Organophosphate
(D) Sodium Arsenite

Answer: (D) Sodium Arsenite · Key from source paper

Q36 JEE Main 2022 · 28 Jun · Shift 2 MCQ

Correct statement about photo-chemical smog is

(A) It occurs in humid climate.
(B) It is a mixture of smoke, fog and SO_2.
(C) It is reducing smog.
(D) It results from reaction of unsaturated hydrocarbons.

Answer: (D) It results from reaction of unsaturated hydrocarbons. · Key from source paper

Q37 JEE Main 2022 · 27 Jun · Shift 1 MCQ

Given below are two Statements :
Statement I : Classical smog occurs in cool humid climate. It is a reducing mixture of smoke, fog and

sulphur dioxide.
Statement II : Photochemical smog has components, ozone, nitric oxide, acrolein, formaldehyde, PAN etc.
In the light of the above statements, choose the most appropriate answer from the options given below.

(A) Both Statement I and Statement II are correct.
(B) Both Statement I and Statement II are incorrect.
(C) Statement I is incorrect but Statement II is correct.
(D) Statement I is correct but Statement II is incorrect.

Answer: (A) Both Statement I and Statement II are correct. · Key from source paper

---

Q38 JEE Main 2022 · 27 Jun · Shift 2 MCQ

On the surface of polar stratospheric clouds, hydrolysis of chlorine nitrate gives A and B while its reaction with HCl produces B and C. A. B and C are respectively

(A) $HOCl, HNO_3, Cl_2$
(B) $Cl_2, HNO_3, HOCl$
(C) $HClO_2, HNO_2, HOCl$
(D) $HOCl, HNO_2, Cl_2\ O$

Answer: (A) $HOCl, HNO_3, Cl_2$ · Key from source paper

Q39 JEE Main 2022 · 26 Jun · Shift 1 MCQ

Polar stratospheric clouds facilitate the formation of

(A) $ClONO_2$
(B) $HOCl$
(C) ClO
(D) CH_4

Answer: (B) $HOCl$ · Key from source paper

Q40 JEE Main 2022 · 26 Jun · Shift 2 MCQ

The measured BOD values tor four difterent water samples (A - D) are as tollows: A = 3 ppm; B = 18 ppm; C = 21 ppm; D = 4 ppm. The water samples which can be called as highly polluted with organic wastes, are

(A) A&B
(B) A&D
(C) B&C
(D) B&D

Answer: (C) B&C · Key from source paper

Q41 JEE Main 2022 · 25 Jun · Shift 1 MCQ

The eutrophication of water body results in

(A) Increase in biodiversity
(B) Loss in biodiversity
(C) Break down of organic matter
(D) decrease in BOD.

Answer: (B) Loss in biodiversity · Key from source paper

Q42 JEE Main 2022 · 25 Jun · Shift 2 MCQ

Given below are two statements: one is labelled as Assertion and the other is labelled as Reason.
Assertion: Polluted water may have a value of BOD of the order of 17ppm.
Reason: BOD is a measure of oxygen required to oxidise both the biodegradable and non-biodegradable organic material in water.
In the light of the above statements, choose the *most appropriate* answer from the options given below.

(A) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
(B) Both Assertion and Reason are true but Reason is NOT the correct explanation of Assertion.
(C) Assertion is true but Reason is false.
(D) Assertion is false but Reason is true.

Answer: (C) Assertion is true but Reason is false. · Key from source paper

---

Q43 JEE Main 2022 · 24 Jun · Shift 1 MCQ

Which one of the following elemental forms is not present in the enamel of the teeth?

(A) Ca^{2+}
(B) P^{3+}
(C) F^{-}
(D) P^{5+}

Answer: (B) P^{3+} · Key from source paper

Q44 JEE Main 2022 · 24 Jun · Shift 2 MCQ

Some gases are responsible for heating of atmosphere (green house effect). Identify from the following the gaseous species which does not cause it.

(A) H_2O vapour
(B) O_3
(C) N_2
(D) CH_4

Answer: (C) N_2 · Key from source paper

Q45 JEE Main 2021 · 1 Sep · Shift 2 MCQ

Water sample is called cleanest on the basis of which one of the BOD values given below :

(A) 11 ppm
(B) 15 ppm
(C) 3 ppm
(D) 21 ppm

Answer: (C) 3 ppm · Key from source paper

Q46 JEE Main 2021 · 31 Aug · Shift 1 MCQ

BOD values (in ppm) for clean water (A) and polluted water (B) are expected respectively as:

(A) A < 5, B > 17
(B) A > 50, B < 27
(C) A > 15, B > 47
(D) A > 25, B < 17

Answer: (A) A < 5, B > 17 · Key from source paper

Q47 JEE Main 2021 · 31 Aug · Shift 2 MCQ

The deposition of X and Y on ground surfaces is referred as wet and dry depositions, respectively. X and Y are :

(A) X = CO_2, Y = SO_2
(B) X = Ammonium salts, Y = SO_2
(C) X = Ammonium salts Y = CO_2
(D) X = SO_2, Y = Ammonium salts

Answer: (B) X = Ammonium salts, Y = SO_2 · Key from source paper

Q48 JEE Main 2021 · 27 Aug · Shift 1 MCQ

The gas 'A' is having very low reactivity reaches to stratosphere. It is non-toxic and non-flammable but dissociated by UV-radiations in stratosphere. The intermediates formed initially from the gas 'A' are:

(A) $\dot{C}H_3 + \dot{C}F_2Cl$
(B) $\dot{C}l + \dot{C}F_2Cl$
(C) $Cl\dot{O} + \dot{C}H_3$
(D) $Cl\dot{O} + \dot{C}F_2Cl$

Answer: (B) $\dot{C}l + \dot{C}F_2Cl$ · Key from source paper

Q49 JEE Main 2021 · 27 Aug · Shift 2 MCQ

In stratosphere most of the ozone formation is assisted by :

(A) γ-rays
(B) cosmic rays
(C) visible radiations
(D) ultraviolet radiation

Answer: (D) ultraviolet radiation · Key from source paper

Q50 JEE Main 2021 · 26 Aug · Shift 1 MCQ

The conversion of hydroxyapatite occurs due to presence of F^- ions in water. The correct formula of hydroxyapatite is:

(A) $[Ca_3(PO_4)_2 \cdot CaF_2]$
(B) $[3\,Ca_3(PO_4)_2 \cdot Ca(OH)_2]$
(C) $[3\,Ca_3(PO_4)_2 \cdot CaF_2]$
(D) $[3\,Ca(OH)_2 \cdot CaF_2]$

Answer: (B) $[3\,Ca_3(PO_4)_2 \cdot Ca(OH)_2]$ · Key from source paper

Q51 JEE Main 2021 · 26 Aug · Shift 2 MCQ

Given below are two statements : one is labelled as Assertion (A) and the other is labelled as Reason (R)
Assertion (A) : Photochemical smog causes cracking of rubber.
Reason (R): Presence of ozone, nitric oxide, acrolein, formaldehyde and peroxyacetyl nitrate in photochemical smog makes it oxidizing.
Choose the most appropriate answer from the options given below :

(A) (A) is false but (R) is true.

(B) Both (A) and (R) are true but (R) is not the true explanation of (A).

(C) Both (A) and (R) are true and (R) is the true explanation of (A).

(D) (A) is true but (R) is false.

Answer: (C) Both (A) and (R) are true and (R) is the true explanation of (A). · Key from source paper

---

Q52 JEE Main 2021 · 27 Jul · Shift 1 MCQ

Which one of the following statements is NOT correct?

(A) Eutrophication indicates that water body is polluted

(B) The dissolved oxygen concentration below 6 ppm inhibits fish growth

(C) Eutrophication leads to increase in the oxygen level in water

(D) Eutrophication leads to anaerobic conditions

Answer: (C) Eutrophication leads to increase in the oxygen level in water · Key from source paper

---

Q53 JEE Main 2021 · 27 Jul · Shift 2 MCQ

Match List - I with List - II :

List - I (compound): a Carbon monoxide; b Sulphur dioxide; c Polychlorinated biphenyls; d Oxides of Nitrogen

List - II (effect/affected species): i Carcinogenic; ii Metabolized by pyrus plants; iii Haemoglobin; iv Stiffness of flower buds

Choose the correct answer from the options given below:

(A) (a) - (iii), (b) - (iv), (c) - (i), (d) - (ii)

(B) (a) - (iv), (b) - (i), (c) - (iii), (d) - (ii)

(C) (a) - (i), (b) - (ii), (c) - (iii), (d) - (iv)

(D) (a) - (iii), (b) - (iv), (c) - (ii), (d) - (i)

Answer: (A) (a) - (iii), (b) - (iv), (c) - (i), (d) - (ii) · Key from source paper

---

Q54 JEE Main 2021 · 25 Jul · Shift 1 MCQ

Which one of the following chemical agent is not being used for dry-cleaning of clothes?

(A) H_2O_2

(B) CCl_4

(C) Liquid CO_2

(D) $Cl_2C = CCl_2$

Answer: (A) H_2O_2 · Key from source paper

Q55 JEE Main 2021 · 25 Jul · Shift 2 MCQ

Given below are two statements :
Statement I : Chlorofluoro carbons breakdown by radiation in the visible energy region and release chlorine gas in the atmosphere which then reacts with stratospheric ozone.
Statement II : Atmospheric ozone reacts with nitric oxide to give nitrogen and oxygen gases, which add to the atmosphere.
For the above statements choose the correct answer from the options given below :

(A) Statement I is incorrect but statement II is true
(B) Both statement I and II are false
(C) Statement I is correct but statement II is false
(D) Both statement I and II are correct

Answer: (B) Both statement I and II are false · Key from source paper

Q56 JEE Main 2021 · 22 Jul · Shift 1 MCQ

The water having more dissolved O_2 is :

(A) boiling water
(B) water at $80^{\circ}C$
(C) polluted water
(D) water at $4^{\circ}C$

Answer: (D) water at $4^{\circ}C$ · Key from source paper

Q57 JEE Main 2021 · 20 Jul · Shift 1 MCQ

Green chemistry in day-to-day life is in the use of:

(A) Chlorine for bleaching of paper
(B) Large amount of water alone for washing clothes
(C) Tetrachloroethene for laundry
(D) Liquified CO_2 for dry cleaning of clothes

Answer: (D) Liquified CO_2 for dry cleaning of clothes · Key from source paper

Q58 JEE Main 2021 · 20 Jul · Shift 2 MCQ

Which one of the following gases is reported to retard photosynthesis?

(A) CO
(B) $CFCs$
(C) CO_2
(D) NO_2

Answer: (D) NO_2 · Key from source paper

Q59 JEE Main 2021 · 18 Mar · Shift 1 MCQ

The satements that are TRUE:
(A) Methane leads to both global warming and photochemical smog
(B) Methane is generated from paddy fields
(C) Methane is a stronger global warming gas than CO_2
(D) Methane is a part of reducing smog
Choose the most appropriate answer from the options given below:

(A) (A), (B), (C) only
(B) (A) and (B) only
(C) (B), (C), (D) only
(D) (A), (B), (D) only

Answer: (A) (A), (B), (C) only · Key from source paper

Q60 JEE Main 2021 · 18 Mar · Shift 2 MCQ

Given below are two statements :
Statement I : Non-biodegradable wastes are generated by the thermal power plants.
Statement II : Bio-degradable detergents leads to eutrophication.
In the light of the above statements, choose the most appropriate answer from the option given below:

(A) Both statement I and statement II are false
(B) Statement I is true but statement II is false
(C) Statement I is false but statement II is true
(D) Both statement I and statement II are true.

Answer: (D) Both statement I and statement II are true. · Key from source paper

Q61 JEE Main 2021 · 17 Mar · Shift 1 MCQ

Reducing smog is a mixture of:

(A) Smoke, fog and O_3
(B) Smoke, fog and SO_2
(C) Smoke, fog and $CH_2 = CH - CHO$
(D) Smoke, fog and N_2O_3

Answer: (B) Smoke, fog and SO_2 · Key from source paper

Q62 JEE Main 2021 · 17 Mar · Shift 2 MCQ

Which of the following statement(s) is (are) incorrect reason for eutrophication?
(A) excess usage of fertilisers
(B) excess usage of detergents

(C) dense plant population in water bodies
(D) lack of nutrients in water bodies that prevent plant growth
Choose the most appropriate answer from the options given below :

A (A) only
B (C) only
C (B) and (D) only
D (D) only

Answer: (D) (D) only · Key from source paper

Q63 JEE Main 2021 · 16 Mar · Shift 1 MCQ

The type of pollution that gets increased during the daytime and in the presence of O_3 is :

A Reducing smog
B Oxidising smog
C Global warming
D Acid rain

Answer: (B) Oxidising smog · Key from source paper

Q64 JEE Main 2021 · 16 Mar · Shift 2 MCQ

The green house gas/es is (are):
(A) Carbon dioxide
(B) Oxygen
(C) Water vapour
(D) Methane
Choose the most appropriate answer from the options given below:

A (A) and (C) only
B (A) only
C (A), (C) and (D) only
D (A) and (B) only

Answer: (C) (A), (C) and (D) only · Key from source paper

Q65 JEE Main 2021 · 26 Feb · Shift 1 MCQ

The presence of ozone in troposphere:

EdLoop JEE

(A) protects us from the UV radiation
(B) protects us from greenhouse effect
(C) protects us from the X-ray radiation
(D) generates photochemical smog

Answer: (D) generates photochemical smog · Key from source paper

---

Q66 JEE Main 2021 · 25 Feb · Shift 1 MCQ

Given below are two statements:
Statement I : An allotrope of oxygen is an important intermediate in the formation of reducing smog.
Statement II : Gases such as oxides of nitrogen and sulphur present in troposphere contribute to the formation of photochemical smog. In the light of the above statements, choose the correct answer from the options given below:

(A) Both Statement I and Statement II are false
(B) Both Statement I and Statement II are true
(C) Statement I is true but Statement II is false
(D) Statement I is false but Statement II is true

Answer: (A) Both Statement I and Statement II are false · Key from source paper

---

Q67 JEE Main 2021 · 25 Feb · Shift 2 MCQ

Given below are two statements:
Statement I: The pH of rain water is normally ~5.6.
Statement II : If the pH of rain water drops below 5.6, it is called acid rain.
In the light of the above statements, choose the correct answer from the options given below:

(A) Both Statement I and Statement II are true.
(B) Statement I is false but Statement II is true.
(C) Statement I is true but Statement II is false.
(D) Both Statement I and Statement II are false.

Answer: (A) Both Statement I and Statement II are true. · Key from source paper

---

Q68 JEE Main 2021 · 24 Feb · Shift 1 MCQ

The gas released during anaerobic degradation of vegetation may lead to:

(A) Corrosion of metals
(B) Ozone hole
(C) Global warming and cancer
(D) Acid rain

Answer: (C) Global warming and cancer · Key from source paper

EdLoop JEE

Q69 JEE Main 2021 · 24 Feb · Shift 2 MCQ

Given below are two statements:
Statement I: The value of the parameter "Biochemical Oxygen Demand (BOD)" is important for survival of aquatic life.
Statement II: The optimum value of BOD is $6.5\ \text{ppm}$.
In the light of the above statements, choose the most appropriate answer from the options given below:

(A) Statement I is true but Statement II is false
(B) Statement I is false but Statement II is true
(C) Both Statement I and Statement II are false
(D) Both Statement I and Statement II are true

Answer: (A) Statement I is true but Statement II is false · Key from source paper

Q70 JEE Main 2020 · 6 Sep · Shift 1 MCQ

The presence of soluble fluoride ion upto 1 ppm concentration in drinking water, is :

(A) harmful for teeth
(B) harmful to skin
(C) harmful to bones
(D) safe for teeth

Answer: (D) safe for teeth · Key from source paper

Q71 JEE Main 2020 · 5 Sep · Shift 1 MCQ

The condition that indicates a polluted environment is:

(A) eutrophication
(B) 03% of CO_2 in the atmosphere
(C) BOD value of 5 ppm
(D) pH of rain water to be 5.6

Answer: (A) eutrophication · Key from source paper

Q72 JEE Main 2020 · 4 Sep · Shift 2 MCQ

The processes of calcination and roasting in metallurgical industries, respectively, can lead to :

(A) Global warming and photochemical smog
(B) Global warming and acid rain
(C) Photochemical smog and ozone layer depletion
(D) Photochemical smog and global warming

Answer: (B) Global warming and acid rain · Key from source paper

---

Q73 JEE Main 2020 · 3 Sep · Shift 1 MCQ

Thermal power plants can lead to :

(A) Acid rain
(B) Blue baby syndrome
(C) Ozone layer depletion
(D) Eutrophication

Answer: (A) Acid rain · Key from source paper

Q74 JEE Main 2020 · 3 Sep · Shift 2 MCQ

The incorrect statement(s) among (a) – (d) regarding acid rain is (are):
a) It can corrode water pipes
(b) It can damage structures made up of stone.
(c) It cannot cause respiratory ailments in animals
(d) It is not harmful for trees

(A) (a), (c) and (d)
(B) (c) only
(C) (a), (b) and (d)
(D) (c) and (d)

Answer: (D) (c) and (d) · Key from source paper

Q75 JEE Main 2020 · 2 Sep · Shift 1 MCQ

The statement that is not true about ozone is :

(A) in the stratosphere, CFCs release chlorine free radicals (Cl) which reacts with O_3 to give chlorine
(B) in the atmosphere, it is depleted by CFCs.
(C) in the stratosphere, it forms a protective shield against UV radiation.
(D) It is a toxic gas and its reaction with NO gives NO_2

Answer: (A) in the stratosphere, CFCs release chlorine free radicals (Cl) which reacts with O_3 to give chlorine · Key from source paper

---

Q76 JEE Main 2020 · 9 Jan · Shift 2 MCQ

Biochemical Oxygen Demand (BOD) is the amount of oxygen required (in ppm):

(A) for sustaining life in a water body.
(B) by bacteria to break-down organic waste in a certain volume of a water sample.
(C) for the photochemical breakdown of waste present in $1\mathrm{m}^3$ volume of a water body
(D) by anaerobic bacteria to breakdown. inorganic waste present in a water body.

Answer: (B) by bacteria to break-down organic waste in a certain volume of a water sample. · Key from source paper

---

Q77 JEE Main 2020 · 8 Jan · Shift 1 MCQ

Among the gases (a) – (e), the gases that cause greenhouse effect are:
(a)CO_2
(b)$\mathrm{H}_2\mathrm{O}$
(c)CFCs
(d)O_2
(e)O_3

(A) (a), (b), (c) and (d)
(B) (a), (b), (c) and (e)
(C) (a) and (d)
(D) (a), (c), (d) and (e)

Answer: (B) (a), (b), (c) and (e) · Key from source paper

Q78 JEE Main 2019 · 12 Apr · Shift 1 MCQ

The correct set of species responsible for the photochemical smog is:

(A) $\mathrm{CO}_2, \mathrm{NO}_2, \mathrm{SO}_2$ and hydrocarbons
(B) $\mathrm{NO}_2, \mathrm{O}_2, \mathrm{O}_3$ and hydrocarbons
(C) $\mathrm{NO}_2, \mathrm{NO}_2$ and hydrocarbons
(D) $\mathrm{NO}, \mathrm{NO}_2, \mathrm{O}_3$ and hydrocarbons

Answer: (D) $\mathrm{NO}, \mathrm{NO}_2, \mathrm{O}_3$ and hydrocarbons · Key from source paper

---

Q79 JEE Main 2019 · 12 Apr · Shift 2 MCQ

The primary pollutant that leads to photochemical smog is:

(A) nitrogen oxides
(B) ozone
(C) acrolein
(D) Sulphur dioxide

Answer: (A) nitrogen oxides · Key from source paper

EdLoop JEE

Q80 JEE Main 2019 · 10 Apr · Shift 1 MCQ

The regions of the atmosphere, where clouds form and where we live, respectively, are:

(A) Troposphere and Troposphere
(B) Stratosphere and Stratosphere
(C) Stratosphere and Troposphere
(D) Troposphere and Stratosphere

Answer: (A) Troposphere and Troposphere · Key from source paper

Q81 JEE Main 2019 · 10 Apr · Shift 2 MCQ

Air pollution that occurs in sunlight is

(A) Acid rain
(B) Reducing smog
(C) Fog
(D) Oxidising smog

Answer: (D) Oxidising smog · Key from source paper

Q82 JEE Main 2019 · 9 Apr · Shift 1 MCQ

Excessive release of CO_2 into the atmosphere results in

(A) global warming.
(B) polar vortex.
(C) depletion of ozone.
(D) formation of smog.

Answer: (A) global warming. · Key from source paper

Q83 JEE Main 2019 · 9 Apr · Shift 2 MCQ

The layer of atmosphere between 10 km to 50 km above the sea level is called as:

(A) stratosphere
(B) troposphere
(C) mesosphere
(D) thermosphere

Answer: (A) stratosphere · Key from source paper

Q84 JEE Main 2019 · 8 Apr · Shift 1 MCQ

Which is wrong with respect to our responsibility as a human being to protect our environment?

(A) Using plastic bags.
(B) Restricting the use of vehicles
(C) Avoiding the use of floodlighted facilities
(D) Setting up compost tin in gardens

Answer: (A) Using plastic bags. · Key from source paper

Q85 JEE Main 2019 · 8 Apr · Shift 1 MCQ

Assertion: Ozone is destroyed by CFCs in the upper stratosphere.
Reason: Ozone holes increase the amount of UV radiation reaching the earth.

(A) Assertion and reason are correct, but the reason is not the explanation for the assertion.
(B) The assertion is false, but the reason is correct.
(C) Assertion and reason are incorrect.
(D) Assertion and reason are both correct, and the reason is the correct explanation for the assertion.

Answer: (A) Assertion and reason are correct, but the reason is not the explanation for the assertion. · Key from source paper

---

Q86 JEE Main 2019 · 8 Apr · Shift 2 MCQ

The maximum prescribed concentration of copper in drinking water is:

(A) 3 ppm
(B) 5 ppm
(C) 0.5 ppm
(D) 0.05 ppm

Answer: (A) 3 ppm · Key from source paper

Q87 JEE Main 2019 · 12 Jan · Shift 1 MCQ

Water samples with BOD values of 4 ppm and 18 ppm, respectively, are:

(A) Highly polluted and Highly polluted
(B) Clean and Clean
(C) Highly polluted and Clean
(D) Clean and Highly polluted

Answer: (D) Clean and Highly polluted · Key from source paper

---

Q88 JEE Main 2019 · 12 Jan · Shift 1 MCQ

The molecule that has minimum or no role in the formation of photochemical smog, is:

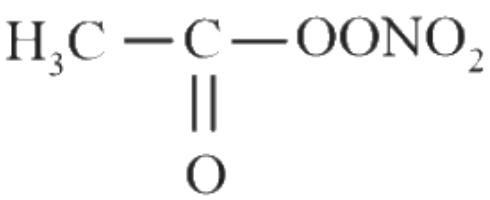
(A) N_2
(B) O_3
(C) $H_2C = O$
(D) NO

Answer: (A) N_2 · Key from source paper

Q89 JEE Main 2019 · 12 Jan · Shift 2 MCQ

The compound that is NOT a common component of photochemical smog is:

Q43. The compound that is NOT a common component of photochemical smog is:

(1) O_3
(2) CF_2Cl_2
(3) 
(4) $CH_2 = CHCHO$

(A) O_3
(B) CF_2Cl_2
(C) *see figure*
(D) $CH_2 = CHCHO$

Answer: (B) CF_2Cl_2 · Key from source paper

Q90 JEE Main 2019 · 12 Jan · Shift 2 MCQ

The upper stratosphere consisting of the ozone layer, protects us from the sun's radiation that falls in the wavelength region of

(A) 200 – 315 nm
(B) 600 – 750 nm
(C) 400 – 550 nm
(D) 0 .8 –1 .5 nm

Answer: (A) 200 – 315 nm · Key from source paper

Q91 JEE Main 2019 · 11 Jan · Shift 1 MCQ

Peroxyacetyl nitrate (PAN), an eye irritant, is produced by:

(A) Classical smog
(B) Acid rain
(C) Organic waste
(D) Photochemical smog

Answer: (D) Photochemical smog · Key from source paper

Q92 JEE Main 2019 · 11 Jan · Shift 1 MCQ

The concentration of dissolved oxygen (DO) in cold water can go upto

(A) 14ppm
(B) 8 ppm
(C) 10ppm
(D) 16pom

Answer: (C) 10ppm · Key from source paper

Q93 JEE Main 2019 · 11 Jan · Shift 2 MCQ

Taj Mahal is being slowly disfigured and discoloured. This is primarily due to

(A) Global warming
(B) Acid rain
(C) Water pollution
(D) Soil pollution

Answer: (B) Acid rain · Key from source paper

Q94 JEE Main 2019 · 11 Jan · Shift 2 MCQ

The higher concentration of which gas in air can cause stiffnes of flower buds?

(A) NO
(B) CO_2
(C) SO.
(D) CO

Answer: (C) SO. · Key from source paper

Q95 JEE Main 2019 · 10 Jan · Shift 1 MCQ

Water filled in two glasses A and B gave BOD values of 10 and 20, respectively. The correct statement regarding them is

(A) A is suitable for drinking, whereas B is not
(B) B is more polluted than A
(C) Both A and B are suitable for drinking
(D) A is more polluted than B

Answer: (B) B is more polluted than A · Key from source paper

---

Q96 JEE Main 2019 · 10 Jan · Shift 2 MCQ

The reaction that is not involved in the ozone layer depletion mechanism in the stratosphere is

(A) $CH_4 + 2O_2 \rightarrow CO_2 + 2H_2O$
(B) $Cl\dot{O}\,(g) + O\,(g) \rightarrow \dot{C}l\,(g) + O_2\,(g)$
(C) $CF_2\,Cl_2\,(g) \xrightarrow{uv} \dot{C}l\,(g) + \dot{C}F_2\,Cl\,(g)$
(D) $HOCl\,(g) \xrightarrow{h(nu)} \dot{O}H\,(g) + \dot{C}l\,(g)$

Answer: (A) $CH_4 + 2O_2 \rightarrow CO_2 + 2H_2O$ · Key from source paper

---

Q97 JEE Main 2019 · 9 Jan · Shift 1 MCQ

A water sample has ppm level concentration of the following metals:
$Fe = 0.2$; $Mn = 5.0$; $Cu = 3.0$; $Zn = 5.0$.
The metal that makes the water sample unsuitable for drinking is

(A) Zn
(B) Fe
(C) Mn
(D) Cu

Answer: (C) Mn · Key from source paper

Q98 JEE Main 2019 · 9 Jan · Shift 2 MCQ

The pH of rain water is approximately:

(A) 5.6
(B) 6.5
(C) 7.5
(D) 7.0

Answer: (A) 5.6 · Key from source paper

Q99 JEE Main 2019 · 9 Jan · Shift 2 MCQ

Which of the following conditions in drinking water causes methemoglobinemia?

(A) > 50 ppm of nitrate
(B) > 50 ppm of chloride
(C) > 100 ppm of sulphate
(D) > 50 ppm of lead

Answer: (A) > 50 ppm of nitrate · Key from source paper

Q100 JEE Main 2018 · 15 Apr · Shift 2 MCQ

Biochemical oxygen demand(BOD) value can be a measure of water pollution caused by the organic matter. Which of the following statements is correct?

(A) Polluted water has BOD value higher than 10ppm
(B) Aerobic bacteria decreases the BOD value
(C) Anaerobic bacteria increases the BOD value
(D) Clean water has BOD value higher than 10 ppm

Answer: (A) Polluted water has BOD value higher than 10ppm · Key from source paper

---

Q101 JEE Main 2018 · 8 Apr · Offline MCQ

The recommended concentration of fluoride ion in drinking water is up to 1 ppm as fluoride ion is required to make teeth enamel harder by converting $[3\,Ca_3\,(PO_4)_2.Ca\,(OH)_2]$ to:

(A) $[3\,Ca\,(OH)_2.CaF_2]$
(B) $[CaF_2]$
(C) $[3(CaF_2).Ca\,(OH)_2]$
(D) $[3\,Ca_3\,(PO_4)_2.CaF_2]$

Answer: (D) $[3\,Ca_3\,(PO_4)_2.CaF_2]$ · Key from source paper

---

Q102 JEE Main 2017 · 9 Apr · Online MCQ

Which of the following is a set of greenhouse gases?

(A) $O_3,\ NO_2,\ SO_2,\ Cl_2$
(B) $CH_4,\ O_3,\ N_2,\ SO_2$
(C) $CO_2,\ CH_4,\ N_2O,\ O_3$
(D) $O_3,\ N_2,\ CO_2,\ NO_2$

Answer: (C) $CO_2,\ CH_4,\ N_2O,\ O_3$ · Key from source paper

---

Q103 JEE Main 2017 · 8 Apr · Online MCQ

Identify the pollutant gases largely responsible for the discoloured and lustreless nature of marble of the Taj Mahal.

(A) SO_2 and O_3
(B) O_3 and CO_2
(C) SO_2 and NO_2
(D) CO_2 and NO_2

Answer: (C) SO_2 **and** NO_2 · Key from source paper

Q104 JEE Main 2017 · 2 Apr · Offline MCQ

A water sample has ppm level concentration of following anions
$F^- = 10; SO_4^{2-} = 100; NO_3^- = 50$
The anion/anions that make/makes the water sample unsuitable for drinking is/are

(A) Both SO_4^{2-} and NO_3^-
(B) Only F^-
(C) Only SO_4^{2-}
(D) Only NO_3^-

Answer: (B) Only F^- · Key from source paper

Q105 JEE Main 2016 · 10 Apr · Online MCQ

Which one of the following substances used in dry cleaning is a better strategy to control environmental pollution?

(A) Sulphur dioxide
(B) Carbon dioxide
(C) Nitrogen dioxide
(D) Tetrachloroethylene

Answer: (B) Carbon dioxide · Key from source paper

Q106 JEE Main 2016 · 3 Apr · Offline MCQ

The concentration of fluoride, lead, nitrate and iron in a water sample from an underground lake was found to be 1000 ppb, 40 ppb, 100 ppm and 0.2 ppm, respectively. This water is unsuitable for drinking due to high concentration of:

(A) Nitrate
(B) Iron
(C) Fluoride
(D) Lead

Answer: (A) Nitrate · Key from source paper

Q107 JEE Main 2015 · 11 Apr · Online MCQ

Addition of phosphate fertilizers to water bodies causes:

(A) Deposition of calcium phosphate
(B) Enhanced growth of algae
(C) Increase in fish population
(D) Increase in amount of dissolved oxygen in water

Answer: (B) Enhanced growth of algae · Key from source paper

Q108 JEE Main 2015 · 10 Apr · Online MCQ

Photochemical smog consists of excessive amount of X, in addition to aldehydes, ketones, peroxy acetyl nitrile (PAN). X is:

(A) CH_4
(B) CO_2
(C) O_3
(D) CO

Answer: (C) O_3 · Key from source paper

Q109 JEE Main 2014 · 12 Apr · Online MCQ

Global warming is due to increase of:

(A) methane and nitrous oxide in atmosphere
(B) methane and CO_2 in atmosphere
(C) methane and O_3 in atmosphere
(D) methane and CO in atmosphere

Answer: (B) methane and CO_2 in atmosphere · Key from source paper

Q110 JEE Main 2014 · 11 Apr · Online MCQ

Which of the following statements about the depletion of ozone layer is correct?

(A) The problem of ozone depletion is less serious at poles because NO_2 solidifies and is not available for consuming ClO° radicals.
(B) The problem of ozone depletion is more serious at poles because ice crystals in the clouds over poles act as catalyst for photochemical reactions involving the decomposition of ozone of $Cl^{\bullet}$ and $ClO^{\bullet}$ radicals.
(C) Freons, chlorofluorocarbons, are inert. Chemically, they do not react with ozone in stratosphere.
(D) Oxides of nitrogen also do not react with ozone in stratosphere.

Answer: (B) The problem of ozone depletion is more serious at poles because ice crystals in the clouds over poles act as catalyst for photochemical reactions involving the decomposition of ozone of $Cl^{\bullet}$ and $ClO^{\bullet}$ radicals. · Checked by our team

Q111 JEE Main 2013 · 7 Apr · Offline MCQ

The gas leaked from a storage tank of the Union Carbide plant in Bhopal gas tragedy was :

(A) Ammonia
(B) Phosgene
(C) Methyl isocyanate
(D) Methylamine

Answer: (C) Methyl isocyanate · Key from source paper

Q112 AIEEE 2012 · 26 May · Online MCQ

Which one of the following depletes ozone layer?

(A) CO
(B) NO and freons
(C) SO_2
(D) CO_2

Answer: (B) NO and freons · Key from source paper

Q113 AIEEE 2012 · 12 May · Online MCQ

Water sample is reported to be highly polluted if BOD (Biological Oxygen Demand) value of sample becomes

(A) more than 17ppm
(B) equal to 10ppm
(C) equal to 5ppm
(D) less than 5ppm

Answer: (A) more than 17ppm · Key from source paper

Q114 AIEEE 2012 · 7 May · Online MCQ

Green house gases can be arranged in 'Global Warming Potential' sequence as

(A) $N_2O > CFC > CH_4 > CO_2$
(B) $CFC > N_2O > CH_4 > CO_2$
(C) $CFC > CO_2 > N_2O > CH_4$
(D) $CO_2 > CFC > N_2O > CH_4$

Answer: (B) $CFC > N_2O > CH_4 > CO_2$ · Key from source paper

Q115 AIEEE 2012 · Offline MCQ

What is DDT among the following :

(A) Greenhouse gas
(B) A fertilizer
(C) Biodegradable pollutant
(D) Non-biodegradable pollutant

Answer: (D) Non-biodegradable pollutant · Key from source paper

---

Q116 AIEEE 2008 MCQ

Identify the wrong statements in the following:

(A) Chlorofluorocarbons are responsible for ozone layer depletion
(B) Greenhouse effect is responsible for global warming
(C) Ozone layer does not permit infrared radiation from the sun to reach the earth
(D) Acid rains is mostly because of oxides of nitrogen and sulphur

Answer: (C) Ozone layer does not permit infrared radiation from the sun to reach the earth · Key from source paper

---

Q117 AIEEE 2007 MCQ

Regular use of which of the following fertilizer increases the acidity of soil?

(A) Potassium nitrate
(B) Urea
(C) Superphosphate of lime
(D) Ammonium sulphate

Answer: (D) Ammonium sulphate · Key from source paper

Q118 AIEEE 2004 MCQ

The smog is essentially caused by the presence of

(A) O_2 and O_3
(B) O_3 and N_2
(C) Oxides of sulphur and nitrogen
(D) O_2 and N_2

Answer: (C) Oxides of sulphur and nitrogen · Key from source paper

---

Q119 AIEEE 2003 MCQ

When rain is accompanied by a thunderstorm, the collected rain water will have a pH value

(A) slightly higher than that when the thunderstorm is not there
(B) uninfluenced by occurence of thunderstorm
(C) which depends on the amount of dust in air
(D) slightly lower than that of rain water without thunderstorm

Answer: (D) slightly lower than that of rain water without thunderstorm · Key from source paper

EdLoop JEE