

Multiple Correct Answers Type

1. Primary pollutants are
 a) PAN b) CO c) NO₂ d) Hydrocarbons
2. Which of the following are air pollutant?
 a) N₂ b) N₂O c) NO d) CO
3. Non-degradable solid pollutants are
 a) Domestic waste b) DDT c) Plastics d) Cow dung
4. Which of the following type of pollution is caused by DDT?
 a) Air pollution b) Water pollution
 c) Soil pollution d) Radioactive pollution
5. Among the following, non-viable particulates are
 a) Flyash b) Fur c) Fungi d) Bacteria

Assertion - Reasoning Type

This section contain(s) 0 questions numbered 6 to 5. Each question contains STATEMENT 1(Assertion) and STATEMENT 2(Reason). Each question has the 4 choices (a), (b), (c) and (d) out of which **ONLY ONE** is correct.

- a) Statement 1 is True, Statement 2 is True; Statement 2 **is** correct explanation for Statement 1
- b) Statement 1 is True, Statement 2 is True; Statement 2 **is not** correct explanation for Statement 1
- c) Statement 1 is True, Statement 2 is False
- d) Statement 1 is False, Statement 2 is True

6

Statement 1: Suspended particulate matter (SPM) is an important pollutant released by diesel vehicles.

Statement 2: Catalytic converters greatly reduce pollution caused by automobiles.

7

Statement 1: Water having pH < 5.5 is not suitable for drinking purposes.

Statement 2: As the pH of water decreases, the solubility of metal ions increases.

8

Statement 1: Carbon monoxide combines with haemoglobin.

Statement 2: CO has more affinity for haemoglobin.

9

Statement 1: Deforestation, is one main factor contributing to global warming

Statement 2: Besides CO₂ two other gases methane and CFCs one also included under green house gases

10

Statement 1: Photochemical smog is produced by nitrogen oxides

Statement 2: Vehicular pollution is a major source of nitrogen oxides

11

Statement 1: For green house effect presence of CO₂ is essential.

Statement 2: With increase in concentration of CO₂, green house effect increases.

12

Statement 1: Acid rain has a pH less than 5

Statement 2: Oxides of nitrogen and sulphur combine with rain water to produce acidic nature

13

Statement 1: Presently the global atmosphere is warming up.

Statement 2: The depletion of stratospheric ozone layer has resulted in increase in ultraviolet radiations reaching the earth.

14

Statement 1: Presently, the global atmosphere is warming up

Statement 2: The depletion of stratospheric ozone layer has resulted in increases in ultraviolet radiations reaching the earth

15

Statement 1: CO combines with haemoglobin

Statement 2: It has affinity for haemoglobin

Matrix-Match Type

This section contain(s) 0 question(s). Each question contains Statements given in 2 columns which have to be matched. Statements (A, B, C, D) in **columns I** have to be matched with Statements (p, q, r, s) in **columns II**.

16. Match the list I and II and pick the correct matching from the codes given below

Column-I

(A) Polycyclic aromatic hydrocarbons

(B) Dioxins

(C) IR active molecules

(D) Peroxy acetyl nitrate

Column- II

(p) Global warming

(q) Photochemical smog

(r) Carcinogens

(s) Waste incineration

CODES :

A B C D

a) c d a b

: ANSWER KEY :

1)	b,c,d	2)	b,c,d	3)	b,c	4)		5)	b	6)	b	7)	a	8)	b
	a,b,c							9)	b	10)	a	1)	a	1)	b
5)	a,b	1)	b	2)	a	3)	a		2)	d					
	4)	b													

: HINTS AND SOLUTIONS :

- | | |
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| <p>1 (b,c,d)
Primary pollutants are simple molecules that persist in the environment in the form, they are formed, <i>eg</i>, oxides of carbon, nitrogen, sulphur</p> <p>2 (b,c,d)
N₂ is not an air pollutants</p> <p>3 (b,c)
Non degradable solid pollutants are those which do not degrade, <i>eg</i>, DDT, plastic etc</p> <p>4 (a,b,c)
DDT is organic compound, cause water, soil and air pollution</p> <p>5 (a,b)
Non-viable particulates are non living, small size particles, <i>eg</i>, flyash, fur, spores, grain, dust</p> <p>6 (b)
Suspended particulate matter (SPM) consists of soot flyash, dusts of various types. These are hazardous. They stay in air long enough to travel all over the world and bring with them toxic cancer causing pollutant.</p> <p>7 (a)
The normal rain water has a pH of 5.6 due to dissolution of CO₂ in it.

CO₂ + H₂O ⇌ H₂CO₃ ⇌ H⁺ + HCO₃⁻</p> <p>8 (a)
CO has more affinity for hemoglobin than that of O₂ and from stable compound carboxy haemoglobin and reduces the oxygen carrier capacity of the blood.</p> <p>9 (b)
Both Statement I and II are true but Statement II is not correct explanation</p> <p>10 (b)
Both Statement I and II are true but Statement II</p> | <p>is not correct explanation</p> <p>11 (b)
CO₂ molecules trap the longer wavelength, infrared radiations emitted by earth and causes green house effect.</p> <p>12 (a)
Statement II is correct explanation of Statement I</p> <p>13 (b)
Global atmosphere is warming up due to increase in concentration of green house gases.</p> <p>14 (b)
Both Statement I and II are true but Statement II is not correct explanation</p> <p>16 (a)
Polycyclic aromatic hydrocarbons are carcinogens, <i>ie</i>, cancer producing dioxins are waste incineration, IR active molecules such as CO₂ are related with global warming. PAN (peroxy acetyl nitrate) forms photochemical smog</p> <p>17 (b)
Reaction of ClO• with atomic O generates more Cl•. These Cl• can continue to destroy ozone by the following reaction.
Cl• + O₃ → ClO• + O₂
It has been calculated that one molecule of CFC can destroy more than thousand of O₃</p> <p>18 (d)
Freons do not cause water pollution</p> |
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