

QP Code : 12893

(2½ Hours)

[Total Marks : 75

- N.B. :
1. All questions are compulsory.
 2. Internal choices have been given.
 3. Figures to the right indicate marks.

1. A) Fill in the blanks (any three) -

- 1) Ozone layer is present in _____.
a) Troposphere b) Stratosphere c) Mesosphere
- 2) _____ serve as nuclei for formation of ice crystals and water droplets.
a) Ions b) Radicals c) Particles
- 3) _____ is one of the major effects of air pollution in rural areas.
a) Eutrophication b) Eustation c) Asian brown clouds
- 4) Ozone concentration is more plentiful near the _____.
a) Poles b) Equator c) Ocean
- 5) _____ is an example of suspended particulate matter.
a) NO₂ b) Dust c) Chlorine
- 6) Smog formation is an example of _____ reaction.
a) Geochemical b) Photochemical c) Hydrochemical

B) Explain the following (any one)-

- 1) Atmosphere
- 2) Pollutant

C) Answer the following (any one)-

- 1) Composition of atmosphere
- 2) Reactions of oxygen and ozone

D. Elaborate on (any one) -

- 1) Green house effect
- 2) Particles and ions in atmosphere

2. A) Fill in the blanks (any three) -

- 1) Oil pollution results in _____ dissolved oxygen value of water.
a) Decreased b) Increased c) None of the above

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- 2) Mercury affects the _____.
 - a) central nervous system
 - b) Peripheral nervous system
 - c) Both 'a' & 'b'
- 3) The degradation of organophosphates and carbonates in the environment takes place by the process of _____.
 - a) Deamination
 - b) Hydrolysis
 - c) Oxidation
- 4) The total dissolved solids should not exceed _____ mg/l.
 - a) 50
 - b) 500
 - c) 5000

- 5) Dithiocarbamate is a _____.
 - a) Fungicide
 - b) Herbicide
 - c) Oxidation
- 6) Cadmium accumulates in _____.
 - a) Brain
 - b) Heart
 - c) Kidney

B) Define and explain (any one) -

- 1) Pesticides as water pollutants
- 2) Preliminary water treatment

C) Write short notes on (any one) -

- 1) Cadmium as water pollutant
- 2) Criteria for water purity

D) Elaborate on (any one) -

- 1) Tertiary water treatment
- 2) Oil spills and detergents as water pollutants

3. A) Fill in the blanks (any three) -

- 1) Crop rotation results in _____ of soil nutrients. conservation
 - a) Conservation
 - b) Imbalance
 - c) Dilution
- 2) The condensation of salt in soil is known as _____.
 - a) Mineralization
 - b) Salinization
 - c) Lyophilization
- 3) Contamination of soil changes the _____ soil quality by
 - a) Isomerization
 - b) Deterioration
 - c) Biotransformation
- 4) Tympanic membrane denotes _____.
 - a) Outer ear
 - b) Inner ear
 - c) Ear drums

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5) Day levels and night levels of noise are _____.

- a) Identical b) Unequal c) Divisible

6) The unit of noise is known as _____.

- a) Decibel b) Hertz c) Nanometer

B) Explain the following (any one)-

- 1) Acidification of soil
- 2) Occupational noise

C) Write short notes on (any one)-

- 1) Effect of CEC on soil quality
- 2) Sonic boom and its implications

D) Elaborate on (any one)-

- 1) Nitrogen cycle in environmental biochemistry
- 2) Classification of noise

4. A) Fill in the blanks (any three) -

1) Solar energy sources are always _____.

- a) Ecofriendly b) Economical c) Enterprising

2) The biochemical effect of asbestos is _____.

- a) Carcinogenic b) Allergic c) Both 'a' & 'b'

3) Tidal energy can be termed as _____.

- a) Non-conventional b) Non-convenient c) Non-compromising

4) The fullform of PCB is Poly _____ Biphenyl.

- a) Carbonated b) Chlorinated c) Carboxylated

5) Natural gas is also known as _____.

- a) CPG b) CNG c) CSG

6) Environmental monitoring can be used for _____.

- a) Air b) Water

B) Define and explain the following (any one) -

- 1) Geochemical energy
- 2) Environmental significance of Kerosene

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- C) Write short notes on **(any one)** - 4
- 1) Environmental significance of- Remote sensing
 - 2) Environmental significance of- Acid mine drainage
- D) Discuss in detail the use of the following in environmental management **(any one)** - 6
- 1) Conventional energy sources
 - 2) Monitoring of air pollutants
5. A) Elaborate on **any one** of the following- 3
- 1) Photochemical smog
 - 2) SO₂ as air pollutant
- B) Discuss in detail **(any one)**- 3
- 1) Water pollution
 - 2) Characteristics of hydrosphere
- C) Explain the following **(any one)**- 3
- 1) Structure of soil
 - 2) Physiological effects of noise
- D) Substantiate **any one** of the following statement- 3
- 1) Biofuels are significant in pollution studies.
 - 2) Solar energy is a promising source of energy production.
- E) Write True or False **(any three)** - 3
- 1) The increase in the dissolved oxygen value is an index of water pollution.
 - 2) Cadmium poisoning causes itai-itai disease.
 - 3) Soil profile is never depicted as a horizon.
 - 4) Hertz is a measurement of frequency.
 - 5) Plastic and Poly styrene are non-ecofriendly polymers.
 - 6) Slight increase in surface temperature can adversely affect world food production.