Unit II: Environmental Pollution

1. **Specify the effects of air pollution**. [**Apr/ May 2021**]

   Air pollution is considered as the major environmental risk factor in the incidence and progression of some diseases such as asthma, lung cancer, ventricular hypertrophy, Alzheimer's and Parkinson's diseases, psychological complications, autism, retinopathy, fetal growth, and low birth weight.

2. **Name any four air pollutants, and their sources and effects**.

Name of the Pollutant	Source	Effect
CO_2	burning of fossil fuels and deforestation	Global Warming
NO_X (NO – Nitric Oxide and NO_2 – Nitrogen Dioxide)	burning of fossil fuels and biomass	Acid rain Lung damage
N_2O – Nitrous Oxide	nitrogen based fertilizers, deforestation and biomass burning	Acid rain Lung damage
Sulphur	burning of sulphur-containing fuels	Breathing problem, acid rain
CFCs	spray cans, discarded or leaking refrigeration and air-conditioning equipment, and burning of plastic products.	O_3 layer depletion

3. **What is air pollution**? [**Apr / May, 2019**]

   Alteration of the concentration of the constituents of air, due to addition of air pollutants is called air pollution. The air pollutants found in the atmosphere are oxides of carbon, oxides of sulphur, oxides of nitrogen, hydrocarbons, particulate matter and aerosols.

4. **What are the major causes for the marine pollution?** [**Apr / May, 2019, Apr / May, 2018**]

   Waste Disposal: Industrial wastes dumped into the oceans by means of injection bore wells spoils the marine ecosystem.

   Oil Spill: Leakage of oil tankers and pipelines in the oceans causes oil spills in the oceans.

5. **What is particulate matter?** [**Apr / May, 2018**]

Particulate matter is the sum of all solid and liquid particles suspended in air, many of which are hazardous. For example: Dust, pollen, soot, smoke and liquid droplets.

6. **How is cyclone formed**? [**Apr/May, 2017**]

Cyclone is formed when an intense depression forming over the open oceans is moving towards the land. When sea surface temperature is below 25 °C, tropical cyclones are formed and move like a spinning top at the speed of 10 -30 kms/hr.

7. **What is called thermal pollution?** [**Apr / May, 2019**]

Thermal pollution is defined as the addition of excess of undesirable heat to water that makes it harmful to aquatic life and cause significant changes in normal activities of aquatic communities is known as thermal pollution.

8. **Define „noise pollution". (or) How does a sound cause noise pollution?** [**Apr/May, 2018**]

The unwanted, unpleasant or disagreeable sound that causes discomfort for all living beings is known as noise pollution. If sound goes beyond 80 dB or more then it causes noise.

9. **Mention the effects of nuclear wastes in humans**. [**Apr/May, 2017**]

   ➢ Radio nuclide iodine - 131 accumulate in the thyroid gland and affects the metabolic activities.

   ➢ Nuclear bomb is described as the ultimate weapon of destruction. When the bomb is exploded, the neutrons travel long distance at bullet speed and kill everyone in its path within a day, generally in a few hours.

10. **What do you understand by the term "soil pollution"?**

Degradation of soil and land due to industrial, agricultural and by other human activities is called soil or land pollution.

11. **State the role and responsibility of an individual in the prevention of pollution**.[**Apr/ May 2021**]

   ▪ Plant more trees

- Purchase recyclable, recycled and environmentally safe products
- Use natural gas than coal
- Use CFCs free refrigerators

Part – B

1. Elaborate on the causes and impacts of noise pollution and thermal pollution. [**Apr/ May2021**]

2. Summarize on the importance of disaster management with respect to floods and cyclonebased on the recent incidents happened in Kerala and Tamil Nadu.[**Apr/ May 2021**]

3. Explain the causes, effects and control measures of water pollution. [**Apr / May, 2019,Apr / May, 2018**]

4. Enlist the rules of management and handling biomedical waste and analyze critically theproblems associated with the implementation. [**Apr** / **May, 2017, Part C**]

5. What are the effects of improper municipal solid wastes management? State themeasures recommended for proper management of the solid wastes.

6. Explain the concept of source, path receiver in the control of noise pollution. [Apr / **May,2017]**

7. What is earthquake? Enumerate its effects. What measures should be taken to mitigatetheir disaster**?**

8. With a flow diagram explain the Activated sludge process for waste water treatment.

9. Explain the causes, effects and control measures of air pollution.

10. Explain the causes, effects and control measures of marine pollution. [**Apr / May, 2019,**

    Part C]

11. Explain the causes, effects and control measures of thermal pollution.

12. Explain the causes and effects of soil pollution. [**Apr/ May 2021, Apr / May, 2019]**

13. What is nuclear hazard? Explain the causes, effects and control

measures of nuclearpollution.

14. What are the roles of an individual in prevention of pollution? Explain. [**Apr / May,2019, Apr / May, 2018**]

15. Give a case study of any anthropogenic (man-made) pollution disaster (a) known to you and discuss the effects of these on the environment (including to human population) in which they happened.[**Apr / May, 2018, Part C**] (**Hint: Chernobyl and Bhopal gas tragedy**)