

**Duration: 3 Hours**

**Maximum Marks: 100**

Q.1 A) Fill in the blanks:

- i) The presence of \_\_\_\_\_ in atmosphere is due to photosynthesis.
- ii) The boundary between stratosphere and mesosphere is called \_\_\_\_\_.
- iii) The reflecting capacity of the earth is called \_\_\_\_\_.
- iv) The major anthropogenic source of nitrogen oxides is \_\_\_\_\_.

4

Q.1 B) Write a short note on : (Any one)

- i) Particles, ions and radicles in the atmosphere.
- ii) Depletion of ozone.

4

Q.1 C) Answer the following: (Any two)

- i) With the help of a neat labelled diagram discuss temperature profile of atmosphere.
- ii) Elaborate on fate of oxides of sulphur in atmosphere.
- iii) Construct a detailed note on reactions of oxygen and ozone in the atmosphere.

12

Q.2 A) Fill in the blanks:

- i) \_\_\_\_\_ of water on earth is available as fresh water.
- ii) The depletion of \_\_\_\_\_ affects aquatic biota severely.
- iii) Sedimentation is a part of \_\_\_\_\_ treatment of waste water.
- iv) The cause of Minamata disease was contamination of water with \_\_\_\_\_.

4

Q.2 B) Write a short note on : (Any one)

- i) Oil spill
- ii) Water cycle

4

Q.2 C) Answer the following: (Any two)

- i) Elaborate on the organic pollutants of water.
- ii) Write in detail about tertiary treatment of waste water.
- iii) Discuss the criteria for purity of water.

12

Q.3 A) Fill in the blanks:

- i) \_\_\_\_\_ convert ammonium ions into nitrite ions.
- ii) Excessive use of inorganic fertilizers leads to \_\_\_\_\_ of soil.
- iii) The unit of measuring sound frequency is \_\_\_\_\_.
- iv) The soil without living organisms is called \_\_\_\_\_.

4

Q.3 B) Write a short note on : (Any one)

- i) Soil profile
- ii) Agrochemical pollution

4

- Q.3 C) Answer the following: (Any two) 12
- Give detailed account of classification of noise.  
Discuss the necessity of biogeochemical cycles with special reference to
  - nitrogen cycle.
  - Justify. Soil is the most susceptible element of the environment to pollution.
- Q.4 A) Fill in the blanks: 4
- The energy associated with carbon and hydrogen bonds present in vegetative material is \_\_\_\_\_.
  - \_\_\_\_\_ energy is non-conventional source useful for cities near sea.
  - The ground water entering the closed mine carries with it a mixture of \_\_\_\_\_ minerals. .
  - The floating precipitate of iron (III) oxide on the surface of natural aquatic systems is called \_\_\_\_\_.
- Q.4 B) Write a short note on : (Any one) 4
- Coal and coke
  - Polymers and plastics
- Q.4 C) Answer the following : ( Any two) 12
- Give comparative account of conventional and nonconventional sources of energy.
  - Construct a note on monitoring of water pollutants stating the principle and significance of it.
  - Discuss approaches for environmental monitoring in detail.
- Q.5A) Define/explain: ( Any four) 8
- Van Allen belts OR b) Deforestation
  - Screening OR d) Surfactants
  - Acidification OR f) Occupational noise
  - Asbestosis OR h) SNG
- Q.5 B) State true or false giving reasons: 12
- Ozone is present in troposphere .
  - Asbestos is used in textile industry.
  - Solubility of nitrogen increases with increasing temperature.
  - Alum is used as flocculating agent.
  - Normal hearing audio range is 2Hz -22000HZ.
  - Soils with low cation exchange capacity retain metals leading to soil pollution.