

**B.Sc. (Part—II) Semester—IV Examination**  
**ENVIRONMENTAL SCIENCE**  
**(Environmental Pollution)**

Time : Three Hours]

[Maximum Marks : 80

**Note :—**All questions are compulsory and questions 2 to 7 carry equal marks.

1. (A) Fill in the blanks : 2
  - (a) Unwanted sound is called \_\_\_\_\_.  $\frac{1}{2}$
  - (b) \_\_\_\_\_ gas protects life from UV rays.  $\frac{1}{2}$
  - (c) Combination of smoke and fog in atmosphere is called \_\_\_\_\_.  $\frac{1}{2}$
  - (d) \_\_\_\_\_ is major green house gas.  $\frac{1}{2}$
- (B) Choose correct option :
  - (e) A gas associated with Bhopal Gas tragedy is \_\_\_\_\_.  $\frac{1}{2}$ 
    - (i) MIC (ii) CO
    - (iii) PAN (iv) O<sub>3</sub>
  - (f) \_\_\_\_\_ is unit for noise.  $\frac{1}{2}$ 
    - (i)  $\mu\text{gm}$  (ii) dB
    - (iii) RAD (iv) S<sup>-1</sup>  $\frac{1}{2}$
  - (g) \_\_\_\_\_ is ionizing radiation.  $\frac{1}{2}$ 
    - (i) r (ii) microwave
    - (iii) IR (iv) visible
  - (h) \_\_\_\_\_ is unit for conductivity.  $\frac{1}{2}$ 
    - (i) S<sup>-1</sup> (ii)  $\Omega$
    - (iii) cm<sup>3</sup> (iv)  $\alpha$
- (C) Answer in one sentence each :—
  - (i) What is SPM? 1
  - (j) What is the long form of CFCs? 1
  - (k) Define acid rain. 1
  - (l) Define aerosols. 1
2. (a) Describe various categories of air pollutants. 4
- (b) Define air pollution and give composition of normal air. 4
- (c) Explain effects of NO<sub>x</sub> on human beings. 4

**OR**

- (d) With the help of suitable example explain secondary air pollutant. 4
- (e) Explain natural sources of air pollutants. 4
- (f) Explain reactions of  $\text{SO}_2$  in atmosphere and resultant effect. 4
3. (g) Explain any two quality characteristics of water. 4
- (h) Describe factors affecting ground water pollution. 4
- (i) Explain various sources of oil pollutants in sea water. 4

**OR**

- (j) Describe physical effects of oil in water. 4
- (k) Explain effects of domestic Sewage on Environment. 4
- (l) Explain effects of thermal pollution. 4
4. Discuss how Agricultural wastes, urban wastes and industrial wastes are polluting soil. 12

**OR**

- Discuss any three typical Soil pollutants and how soil pollution can be controlled. 12
5. (m) Explain industrial noise and transport noise. 4
- (n) Explain the concept of "Reduction of noise at source" with suitable example. 4
- (o) Describe any two physiological effects of noise on human. 4

**OR**

- (p) Suggest any two control measures to control traffic noise. 4
- (q) Explain any two psychological effects of noise on human being. 4
- (r) Explain decibel along with various threshold limit values. 4
6. (s) With the help of suitable reaction explain nuclear fission and its applications. 4
- (t) Describe early radioactive fallout. 4
- (u) Explain any two sources of radiations with typical radiations and its control. 4

**OR**

- (v) Explain mechanism of interaction of ionizing radiations to living thing. 4
- (w) Explain mechanism of delayed radioactive fallout. 4
- (x) Describe curie and rad as radiation units. 4
7. Discuss causes, mechanism, effects and control measure for green house effect. 12

**OR**

Define thermochemical and photochemical smog. Explain causes, mechanism and effect of sulphur smog. 12