

Bachelor of Science (B.Sc.) Semester–V Examination

PRINCIPLES OF AIR AND NOISE POLLUTION

Optional Paper–1

(Environmental Science)

Time : Three Hours]

[Maximum Marks : 50

N.B. :— (1) All questions are compulsory and carry equal marks.

(2) Illustrate your answers with suitable examples and diagrams.

1. How burning of coal can contribute to oxide of sulphur (SO_x) pollution. What are their adverse effects ? 10

OR

- (a) How are Wind-Roses prepared ? What is their significance in air pollution studies ? 5
 (b) What are particulates ? Mention various types of particulates. 5
2. Explain with a neat sketch, the construction and working of an electrostatic precipitator. 10

OR

- (a) The environmental impact of acid rain is quite serious. Express your views. 5
 (b) Discuss the problem of indoor pollution ; suggest a suitable remedy for it. 5
3. What is vehicular air pollution ? Describe in detail sources of vehicular pollution. 10

OR

- (a) Why are catalytic reactors necessary to control all major automotive exhaust pollutants ? 5
 (b) Explain the necessity of the Motor Vehicle Act, and its provisions to counter vehicular pollution. 5
4. What are major sources of noise and discuss its effect. 10

OR

- (a) Discuss the different types of equipments used for the measurement of noise. 5
 (b) Distinguish between relative error and absolute error. 5

5. Attempt any **ten** :

- (a) What is photochemical smog ?
 (b) Discuss the affinity of CO to haemoglobin as compared to oxygen.
 (c) Define wind velocity.
 (d) Name the gas responsible for Bhopal gas tragedy.
 (e) Draw a neat sketch of a typical cyclone collector and label the parts.
 (f) Explain what do you understand by air quality standards.
 (g) Why petrol and diesel are not environmentally clear fuels ?
 (h) What are the principal pollutants emitted by vehicles ?
 (i) What are the main approaches to minimize exhaust emissions ?
 (j) What is the unit of noise ?
 (k) Distinguish between accuracy and precision.
 (l) Enlist the types of errors. 1×10=10