S-1175

Total Pages: 3 Roll No.

ES-551

Air Pollution and Control Technologies

M.Sc. Environmental Science (MSCES)2nd Year Examination, 2022 (Dec.)

Time: 2 Hours] Max. Marks: 70

Note: This paper is of Seventy (70) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION-A (Long Answer Type Questions)

Note: Section 'A' contains Five (05) long answer type questions of Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

 $(2 \times 19 = 38)$

1. Define Air pollution? How air pollutants are classified? Discuss in detail.

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- **2.** Define Atmosphere. What are the different layers of the atmosphere based on the temperature structure? Discuss in detail.
- **3.** What is indoor air pollution? List the important sources of indoor air pollutants? Discuss about the health effects from indoor air pollutants.
- **4.** Define Sound? When does it become noise? Explain with an example and discuss about the characteristics of sound.
- **5.** Describe the term photochemical smog and its effects. Explain the adverse effects of smog on plants and materials.

SECTION-B

(Short Answer Type Questions)

Note: Section 'B' contains Eight (08) short answer type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only. (4×8=32)

- **1.** Write a brief note on the UNEP's efforts to protect ozone layer.
- **2.** What is stratospheric ozone depletion? Explain the impacts of ozone depletion on human health.

- **3.** What are the secondary air pollutants? List them and mention briefly the impacts on humans and materials.
- **4.** Briefly describe Air (Prevention and control of pollution) Act, 1981.
- **5.** Describe the temperature lapse rates in the atmosphere.
- **6.** What are vehicular emission factors? Discuss types and sources of vehicular pollution.
- **7.** What are thermal power plants? Discuss environmental impacts of thermal power plants.
- **8.** Discuss in detail about the steel industry. What are the major steps involved in steel making?