

Roll No.

ES–551

Air Pollution and Control Technologies

M. Sc. Environmental Science (MSCEN–13)

Second Year, Examination, 2017

Time : 3 Hours

Max. Marks : 60

Note : This paper is of **sixty (60)** marks containing **three (03)** sections A, B and C. Attempt the questions contained in these sections according to the detailed instructions given therein.

Section–A

(Long Answer Type Questions)

Note : Section ‘A’ contains four (04) long answer type questions of fifteen (15) marks each. Learners are required to answer *two* (02) questions only.

1. Define Pollution and Pollutants. Discuss the various sources of air pollutants and also discuss impacts of air pollution in detail.
2. Explain how cement is manufactured ? Discuss the sources of pollution in cement plants and also discuss the control strategies.
3. Write a detailed note on automobile pollution.
4. What is Noise ? Discuss its sources, impacts and control measures in detail.

Section-B**(Short Answer Type Questions)**

Note : Section 'B' contains eight (08) short answer type questions of five (05) marks each. Learners are required to answer *four* (04) questions only.

1. What is Smog ? Discuss its harmful effects.
2. Discuss the effects of oxides of sulphur and nitrogen on humans, plants and materials.
3. Discuss in brief the environmental issues concerned with oil refinery.
4. Briefly discuss particulate matter and its environmental impacts.
5. Differentiate between Primary and Secondary air pollutants.
6. Write a short note on plume and plume behaviour.

Section-C**(Objective Type Questions)**

Note : Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this section are compulsory.

Write True / False against the following :

1. Hydrogen Sulphide is produced in oil refineries.
2. London smog is concerned with SO₂ emission from coal burning industries and domestic fire.
3. Blue baby syndrome is caused by NO₂ toxicity.
4. Sulphur dioxide and photochemical smog both are secondary pollutants.
5. Asbestos and radon both can cause lung cancer.

Choose the correct alternative :

6. CNG is :
 - (a) Compressed Natural Gas
 - (b) Compressed Nitrogen Gas
 - (c) Colourless Natural Gas
 - (d) None of these
7. Loudness is expressed in :
 - (a) Decibel
 - (b) Sone
 - (c) Newton
 - (d) None of these
8. Temperature lapse rate is :
 - (a) Decrease in temperature with increasing latitude
 - (b) Decrease in temperature with altitude
 - (c) Increase in temperature with latitude
 - (d) Increase in temperature with increasing altitude
9. PAN is :
 - (a) Peroxy acetyl Nitrate
 - (b) Per-acetyl Nitrite
 - (c) Per-acetyl Nitrate
 - (d) Water vapours
10. Which of the following are categorized as VOC ?
 - (a) Formaldehyde
 - (b) Benzene
 - (c) Both of the above
 - (d) None of the above