

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2022
(First Semester)

Branch – ENVIRONMENTAL SCIENCE

AIR POLLUTION AND MANAGEMENT

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

1. The boundary between troposphere and stratosphere is known as
A. Tropopause
B. Ionopause
C. Stratopause
D. Mesopause
2. Which of the following is called the secondary air pollutant?
A. Sulfur oxides
B. Ozone
C. Carbon monoxide
D. Nitrogen Dioxide
3. Radon gas is most harmful to which part of the body?
A. Kidney
B. Intestine
C. Brain
D. Lungs
4. Which of the following fluid is used in wet scrubbers?
A. NaCl
B. K₂Cr₂O₇
C. Lime
D. MgSO₄
5. The thermal efficiency of diesel engines is about _____.
A. 65%
B. 50%
C. 80%
D. 70%

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

6. a. Explain components of atmosphere.
(OR)
b. What is stack sampling? Explain its significance.
7. a. List out the effects of air pollutions on human health.
(OR)
b. Discuss importance of AQI and its evaluation.
8. a. Write about catalytic converter.
(OR)
b. Discuss the various biological air pollution control techniques.
9. a. Elaborate the noise standards in CPCB.
(OR)
b. Discuss the types of emission and its automotive emission control.

Cont...

10. a. Discuss the Stoichiometric air fuel ratio.

(OR)

b. Explain in detail about Tamil Nadu Air (Prevention and Control of Pollution) Rules, 1983.

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 6 = 30)

11. a. Detail notes on Gaussian plume model and its co efficient.

(OR)

b. Explain the effect of meteorological factors on dispersion of air pollutant.

12. a. Discuss the primary and secondary air pollutants with examples.

(OR)

b. Write detail notes on ozone layer depletion and its consequences.

13. a. Explain the role of CPCB on NAAQS.

(OR)

b. Analyse indoor air quality standards with examples.

14. a. How noise is measured and list out the health effects?

(OR)

b. List out the sources and its control measures of Noise pollution.

15. a. Analyse the alternative fuels to reduce air pollution.

(OR)

b. What are the emission standards in India. Write in detail about the Bharat stage emission standards.

Z-Z-Z

END