22TDCESPT

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

PG DEGREE EXAMINATION DECEMBER 2023
(Third Semester)

TRANS DISCIPLINARY COURSE
(Common to PG Programmes)

ELEMENTS OF ENVIRONMENTAL POLLUTION

Time: Three Hours | Maximum: 50 Marks

SECTION-A (5 Marks)

Answer **ALL** questions
ALL questions carry **EQUAL** marks (5 x 1 = 5)

1 What is the atmospheric layer closest to the ground?
(i) Mesosphere (ii) Troposphere
(iii) Thermosphere (iv) Stratosphere

2 Acid rain is formed due to _____.
(i) Acetic acid (ii) Cellulose
(iii) Oxalic acid (iv) Sulphuric acid

3 The main chemical responsible for Eutrophication is
(i) Potassium (ii) Phosphate
(iii) Sodium (iv) Carbon

4 Humus is a substance present in
(i) A Horizon of soil (ii) B Horizon of soil
(iii) C Horizon of soil (iv) E Horizon of soil

5 Biogas consists mainly of
(i) Ammonia (ii) Hydrogen sulphide
(iii) methane and carbon dioxide (iv) Ethane and carbon dioxide

SECTION - B (15 Marks)

Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 3 = 15)

6 a What are limiting factors in an ecosystem?
OR
b Define point source pollution with an example.

7 a How fertilizers act as pollutants?
OR
b Differentiate primary and secondary air pollutants.

8 a Differentiate between BOD and COD.
OR
b Explain why eutrophication occurs in coastal waters.

9 a Briefly discuss the concept of phytoremediation.
OR
b What are the causes for soil acidification in India?

Cont...

10 a List out the sources and effects of microplastics.

OR

b How composting is done?

SECTION -C (30 Marks)

Answer **ALL** questions

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

11 a Explain the concept of SDGs and any three goals related to sustainable environment.

OR

b Illustrate with examples the interaction between biotic and abiotic components of a terrestrial ecosystem.

12 a How air pollution affects human health?

OR

b Why vehicular pollution is regarded notorious in India?

13 a Determine the schematic method to treat organic load in the wastewater.

OR

b Prescribe the BIS and WHO standards for drinking water.

14 a Elucidate the bioremediation techniques for wastewater treatment.

OR

b Formulate the treatment methods for oil refinery wastes.

15 a Analyze the composition of biomedical wastes and the treatment strategies.

OR

b Construct and explain the pyrolysis processes.

Z-Z-Z END