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PGIIS-828 B-19
M.Sc. III Semester (CBCS) Degree Examination
ENVIRONMENTAL SCIENCE
Environmental Sampling and Statistics
Paper: SCT 3.1

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

Answer questions from **all** sections. Section - A is compulsory.

Section- A

1. Answer any **ten** of the following : **(10×2=20)**
- a. Sedimentation
 - b. SPM
 - c. Water Sampling
 - d. PAH
 - e. Solid waste
 - f. Dumping site
 - g. Bar diagram
 - h. Variance.
 - i. Correlation
 - j. Standard deviation.
 - k. Soil pH
 - l. Organic Matter

Section - B

- Answer any **six** of the following : **(6×5=30)**
2. Explain the criteria for air sampling.
 3. How do you measure the BOD of sewage?
 4. Write a short note on preparation of soil samples for analysis.
 5. Explain the scope and limitations of statistics in Environmental Studies.
 6. Write a short note on application of F -test.

7. Give an account on water sample handling and preservation.
8. Give an account on classification and tabulation of data.
9. Write a short note on multiple regression analysis.

Section - C

Answer any **three** of the following :

(3×10=30)

10. Give detailed account on instrumental techniques used in estimation of air pollutants.
11. Write a note on significance and measurement of pesticides in water.
12. Write a detailed account on Physico - Chemical characteristics of soils.
13. Explain the importance of statistics in environmental analysis.
14. Explain salient features of Correlation and ANOVA with examples.



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PGIIS-826 B-19
M.Sc. III Semester (CBCS) Degree Examination
ENVIRONMENTAL SCIENCE
Environmental Engineering And Technology
Paper : HCT 3.1

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

Answer **All** the sections. **Section - A** is compulsory.

SECTION-A

1. Answer any **Ten** of the following :

(10×2=20)

- a. Sedimentation
- b. Oxidation pond
- c. Hardness in water
- d. RSPM
- e. Grit chamber
- f. *Ex situ* bioremediation
- g. Wet collectors
- h. Fluoridation
- i. Smog
- j. Hazardous waste
- k. Fabric filters
- l. Activated Sludge

SECTION - B

Answer any **Six** of the following :

(6×5=30)

2. Explain the steps involved in the filtration of drinking water.
3. Discuss the mechanism and importance of Aeration.
4. Write a note on control methods of particulate matters.
5. Explain the ecological impacts due to disposal of waste water into surface water bodies.

6. Write a note on control measures of automobile emissions.
7. Explain methods for measures of soil erosion and land reclamation.
8. Define Desalination. Explain its applications in industries.
9. Explain Ground water recharge with neat labeled diagram.

SECTION - C

Answer any **Three** of the following :

(3×10=30)

10. Discuss on Land development and watershed management.
 11. Explain the significance of miscellaneous treatment methods followed for waste water.
 12. Discuss on scientific methods and layout requires for waste water disposal.
 13. Explain advanced techniques for control of noise pollution.
 14. Discuss about Energy Conversion Methods from Agricultural waste.
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PGIIS-827 B-19
M.Sc. III Semester (CBCS) Degree Examination
ENVIRONMENTAL SCIENCE
Environmental Law and Audit
Paper - HCT 3.2

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

Answer **all** the sections. Section - A is compulsory.

SECTION-A

1. Answer any **Ten** of the following : **(10×2=20)**
- a. Eco labeling
 - b. Central Pollution Control Board
 - c. Water (Prevention and Control of Pollution) Act 1974.
 - d. Afforestation
 - e. United Nations Conference on Environment and Development (1992).
 - f. Green audit
 - g. ISO 14000
 - h. Bharat stage emission standards (BSES)
 - i. Polluter pays principle
 - j. Public Hearing
 - k. Coastal Zone
 - l. Eco - Audit

SECTION - B

- Answer any **Six** of the following : **(6×5=30)**
2. Write a note on basic concepts of Environmental auditing.
 3. Give an account of public policy - strategies in pollution control.
 4. Briefly explain the salient features of Coastal Zone Regulations (CZR) notification.
 5. Describe the benefits of environmental audit.
 6. Briefly explain the Hazardous Wastes (Management and Handling) Rules, 1989.