

**PGIIS 1096 A-16**  
**M.Sc. IInd Semester Degree Examination**  
**Environmental Science**  
**(Environmental Engineering)**  
**Paper : HCT - 2.1**

Time : 3 Hours

Maximum Marks : 80

**Instructions to Candidates:***Answer All sections.***Section - A**Write brief notes on all **Ten** of the following :**(10×1=10)**

1. Disinfection
2. Fluoridation
3. Superbug
4. Soil pollutants
5. Particulates
6. Classification of solid waste
7. Biofilters
8. Stack emission
9. Reverse Osmosis
10. Desalination

**Section - B**Write short notes on any **five** of the following :**(5×3=15)**

11. Salient features of pulp and paper industrial effluents.
12. Sedimentation methods.
13. Explain recycle and reuse of solid wastes

14. Biological treatment of solid waste
15. Degradation of pesticides
16. Indoor air pollution.

**Section - C**

Write notes on any **five** of the following :

**(5×7=35)**

17. Iron and steel industry effluent characteristics
18. Scope of Environmental engineering
19. Detoxification of phenol
20. Air sampling techniques.
21. Solid waste generation sources in India
22. Effluent treatment methods for sugar and distillery industries.

**Section - D**

Answer any **two** of the following

**(2×10=20)**

23. Write short notes on
    - a) Characteristics of hazardous waste
    - b) Ion exchange method
  24. Detailed write the general characteristics of waste water and describe the steps involved in waste water treatment.
  25. Discuss current solid waste management practices followed in India.
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**PGIIS 1097 A-16**  
**M.Sc. IInd Semester Degree Examination**  
**Environmental Science**  
**(Environmental Toxicology)**  
**Paper : HCT - 2.2**

Time : 3 Hours

Maximum Marks : 80

**Instructions to Candidates:***Answer All sections.***Section - A**Write brief note on all **ten** of the following :**(10×1=10)**

1. Acute toxicity
2. Dose - response
3. Pesticides
4. Mutagenicity
5. Bioassay
6. Adipose tissue
7. LC 50
8. ECO - Toxicology
9. Bio - Transformation
10. Threshold Concentration

**Section - B**Write short notes on any **five** of the following :**(5×3=15)**

11. Basic divisions of toxicology.
12. Biomegnification.
13. Chemistry of toxins.

14. Biochemical toxicity.
15. Bioconcentration.
16. Reproductive toxicity.

### Section - C

Write notes on any **five** of the following :

(5×7=35)

17. Scope of toxicology.
18. Environmental concentrations of Toxicants.
19. Classification of Toxic animals.
20. Bioaccumulation of pesticides in birds.
21. Evaluation of reproductive toxicity in animals.
22. Factors affecting the bioaccumulation of pesticides in human beings.

### Section - D

Answer any **two** of the following :

(2×10=20)

23. Explain the importance and significance of statistical concept of toxicity and toxic curves.
  24. Write an essay on
    - i) Tetragenicity
    - ii) Margin safety
  25. Explain the
    - i) Evaluation of Genotoxicity
    - ii) General principles of biotransformation
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**PGIIS 1098 A-16**  
**M.Sc. IInd Semester Degree Examination**  
**Environmental Science**  
**(Environmental Pollution)**  
**Paper : SCT - 2.1**

Time : 3 Hours

Maximum Marks : 80

***Instructions to Candidates:****Answer All sections.***Section - A**Write brief note on all **ten** of the following :**(10×1=10)**

1. Radionuclide
2. Particulate matter
3. Chemical speciation
4. Relative humidity
5. Atmospheric inversion
6. Plume behaviour
7. Noise pollution
8. Thermal pollution
9. Biological dosimetry
10. NPK

**Section - B**Write short notes on any **five** of the following :**(5×3=15)**

11. Coastal water intrusion
12. Radioactive decay
13. Sources of soil pollution

14. Importance of weedicides
15. Dust sampling technique
16. Air pollution indices

### Section - C

Write note on any **five** of the following :

(5×7=35)

17. Water Quality indices
18. Measurement of noise pollution
19. Sources of marine water pollution
20. Degradation of insecticides
21. Impact of air pollution on inanimate objects
22. Radiation exposure standards

### Section - D

Answer any **two** of the following :

(2×10=20)

23. Explain the monitoring and control of exhaust emissions. Add a note on automobile pollution in Indian cities.
  24. Explain the sources and consequences of surface water pollution and a note on surface water quality indices.
  25. Give an account of impact of radioactive pollution on ecosystem. Write a note on sources of radioactive pollution.
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**PGIIS 1099 A-16**  
**M.Sc. IInd Semester Degree Examination**  
**Environmental Science**  
**(Natural Resources and Management)**  
**Paper : OET - 2.1**

Time : 3 Hours

Maximum Marks : 80

***Instructions to Candidates:***

*Answer any five questions and question No. Is compulsory.*

**Section - A**

1. Answer the following **One** or **Two** sentences **(8×2=16)**
- a) Pyrolysis
  - b) Urban forestry
  - c) Watershed
  - d) Soil erosion
  - e) Biogas
  - f) Eco - tourism
  - g) Nematodes
  - h) Tidal energy
2. Give an account of chemical pesticides and their merits and demerits. **(16)**
3. Write an account of conservation of forest resources. **(16)**
4. Explain the methods of integrated water resource management. **(16)**

5. Write an account on non - conventional energy sources. (16)
6. Write short notes on any **four** of the following : (4×4=16)
- a) Natural resources of India
  - b) Mineral resources
  - c) Hydrocarbon chain
  - d) Ex-situ conservation
  - e) Weed control
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