

M.Sc. (Semester II)

**M.Sc. Environmental Science (Semester II) Examination,**

**Paper –First**

**WASTE MANAGEMENT**

**Marks: 30**

**Instructions to the candidates:** Students are given eight questions which would consist of two questions from each unit. Students are required to answer any two questions from any unit.

Unit 1

Q1- write a detail note on collection and transport techniques for solid waste management.

Q2- What do you mean by Treated Effluent? Also explain the standards for safe disposal along with recycling and reuse techniques.

Unit 2

Q3- Discuss about classification, nature and characteristics of hazardous waste.

Q4- write note on

- a) Techniques for hazardous waste treatment.
- b) Disposal of hazardous waste.

Unit 3

Q5- What is nuclear waste? Write detail note on classification of nuclear waste.

Q6- Write short note on

- a) Dilution and Dispersion of nuclear waste.
- b) Delay for decay of short lived radio nuclides.

Unit 4

Q7- Describe the different methods for treatment and disposal of biomedical waste.

Q 8- Write short notes on the following

- a) Types of biomedical waste
- b) Accidental spilling and its reporting procedure.

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**M.Sc. Environmental Science (Semester II) Examination,**

**Paper –Second**

**ENVIRONMENTAL POLICIES, LEGISLATIONS AND ETHICS**

**Marks: 30**

**Instructions to the candidates:** Students are given eight questions which would consist of two questions from each unit. Students are required to answer any two questions from any unit.

**UNIT I**

- Q1. Give a detailed account on Constitutional Provisions Article 21, 48A, 51A.
- Q2. Write a short note on National Environmental Policy and Regulatory policy framework.

**UNIT II**

- Q3. Give a detailed account on Air (prevention and control of pollution) Act 1981.
- Q4. Write a short note on Environment (Protection) Act 1986

**UNIT III**

- Q5. Define the Earth Summit at Rio de Janeiro.
- Q6. Explain in details on Kyoto Protocol, Montreal Protocol, 1987 and Basel Convention (1989, 1992).

**UNIT IV**

- Q7. Write a short note on Chipko movement and Tehri dam,
- Q8. Write a Short note any four
- Bishnoi tradition,
  - Role of NGOs
  - Value education,
  - Silent Valley.
  - Individual, community,
  - corporate social responsibility

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## M.Sc. Environmental Science (Semester II) Examination

### Paper–Third

### ENVIRONMENTAL CHEMISTRY

**Marks: 30**

**Instructions to the candidates:** Students are given eight questions which would consist of two questions from each unit. Students are required to answer any two questions from any unit.

#### UNIT I

Q.1. Explain the chemical potential and chemical equilibria with their advantages, limiting factors and significance in environment chemistry.

Q. 2. What do you understand by solubility of gases in water and carbonate system? Write a detailed note on their role in a water body.

#### UNIT-II

Q. 3. What is the difference between thermo-chemical and photochemical reactions in the atmosphere. Give an explanatory note on both type of reaction in the atmosphere.

Q. 4. Describe the Chemical speciation in the atmosphere in a detailed manner.

#### UNIT-III

Q. 5. Write a note on physic-chemical properties of water and their environmental significance.

Q. 6. Define the concept and significance of dissolved oxygen, biological oxygen demand, chemical oxygen demand, total dissolved solids, pH and conductivity in water chemistry.

#### UNIT-IV

Q. 7. Define the soil and describe its Physico-chemical characteristics in a descriptive way.

Q.8. Write short note on

- a) Cation exchange capacity of soil
- b) Nitrogen pathways
- c) C/N ratio of soil
- d) Soil water solution

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**M.Sc. Environmental Science (Semester II) Examination,**

**Paper –Fourth**

**ENVIRONMENTAL DISASTERS AND MANAGEMENT**

**Marks: 30**

**Instructions to the candidates:** Students are given eight questions which would consist of two questions from each unit. Students are required to answer any two questions from any unit.

**UNIT I**

**Q1.** What is Coastal Erosion? Explain the various factors causing erosion with its Impact on the Environment?

**Q2.** Give the Detailed Account on various steps of Disaster Management?

**UNIT II**

**Q3.** Explain Flood Management System in detail?

**Q4.** What are the consequences of Drought with its Mitigation Measures?

**UNIT III**

**Q5.** Describe in detail about the initiation of various Seismic Activities including Earthquake and Tsunamis?

**Q6.** Give a detailed account on Volcanic Eruptions?

**UNIT IV**

**Q7.** What is International Decade for Natural Disaster Reduction (IDNDR)

**Q8.** What are the various Policies of Disaster Management in association with Natural Hazard Management System?