

**Kerala Agricultural University**  
**KELAPPAJI COLLEGE OF AGRICULTURAL ENGG. & FOOD TECHNOLOGY**

**II Semester B. Tech. (Food Tech.)- Final Examination, August 2026**

**Environmental Studies and Disaster Management (2+1)**

**SWC 1208**

**Marks: 50**

**Time: 2 hours**

**I Answer the following**

**(10×1 marks = 10 marks)**

1. The device used in industries to remove particulate matter using an electrical charge is an \_\_\_\_\_.
2. The Water (Prevention and Control of Pollution) Act was enacted in India in the year \_\_\_\_\_.
3. The liquid that leaches from a landfill containing dissolved organic and inorganic matter is called \_\_\_\_\_.
4. The international agreement signed in 1987 to phase out ozone-depleting substances is the \_\_\_\_\_.
5. The process by which a body of water becomes excessively enriched with nutrients, leading to algal blooms, is called \_\_\_\_\_.
6. The damage caused by acid rain to historical marble structures like the Taj Mahal is often referred to as \_\_\_\_\_.
7. The process of controlled burning of solid waste at high temperatures in the presence of excess oxygen is known as \_\_\_\_\_.
8. The accumulation of non-biodegradable toxic substances in increasing concentrations at higher trophic levels is known as \_\_\_\_\_.
9. \_\_\_\_\_ is one of the main causes of marine pollution originating from petroleum transportation.
10. The natural process by which greenhouse gases trap heat in Earth's atmosphere is \_\_\_\_\_.

**II Write short notes on any FIVE of the following**

**(5×2 marks = 10 marks)**

1. Differentiate between industrial waste and urban waste.
2. Discuss the significance of ozone layer depletion and the role of international treaties.
3. Explain the concept and significance of rainwater harvesting.
4. Explain the key causes and ecological consequences of marine pollution.
5. Differentiate between primary and secondary air pollutants with examples.
6. State the key objectives of the Forest Conservation Act, 1980.
7. Explain the mechanism and benefits of incineration in municipal waste disposal.

**III Write any FIVE of the following**

**(5×4 marks = 20 marks)**

1. Explain water pollution in detail: causes, biological effects and treatment techniques.
2. Detail the role of NGOs and Community-Based Organizations during disaster risk reduction and post-disaster recovery.
3. Discuss the Air (Prevention and Control of Pollution) Act, 1981, highlighting its provisions, amendments, and enforcement mechanisms.

4. Write in detail the biological process of solid waste treatment methods.
5. Explain the mechanism of acid rain formation, its damage to structures/ecosystems, and control measures.
6. Describe the strategy for international and national disaster risk reduction.
7. Elaborate on the causes, health/physiological impacts, and control techniques for thermal pollution and light pollution.

**IV Write essay on any ONE of the following**

**(1×10 marks = 10 marks)**

1. List out the man-made disasters. Write causes, effects and mitigation measures for nuclear disasters and forest fire.
2. List out solid waste treatment methods and explain process of pyrolysis and incineration.