

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

II Semester B. Tech. (Agri. Engg.)- Final Examination, August 2026

Environmental Studies and Disaster Management (2+1)

SWC 1202

Marks: 50

Time: 2 hours

I Answer the following

(10×1 marks = 10 marks)

1. Chemical decomposition of organic waste at elevated temperatures in the total absence of oxygen is called _____
2. The Environment Protection Act in India was enacted in the year _____ following the Bhopal Gas Tragedy.
3. The intense artificial lighting at night that disrupts biological systems and natural ecosystems is termed _____
4. At the district level in India, the administrative body responsible for disaster management is headed by _____
5. The phenomenon where ocean warming causes corals to expel their symbiotic algae is known as _____
6. The beneficial protective ozone layer is located in the _____ layer of Earth's atmosphere.
7. A land area that drains all rainfall and streams to a common outlet is called a _____
8. Which of the '3 Rs' of waste management should be prioritized first to minimize environmental impact?
9. An international agreement aimed at reducing global greenhouse gas emissions to combat climate change is the _____
10. Which technology uses earthworms to accelerate the composting process of organic waste?

II Write short notes on any FIVE ONLY of the following

(5×2 marks = 10 marks)

1. Differentiate between aerobic composting and pyrolysis in solid waste treatment.
2. Highlight the role played by Community-Based Organizations (CBOs) during disaster mitigation.
3. Briefly explain the primary objectives of watershed management.
4. Explain the key causes and ecological consequences of marine pollution.
5. Distinguish between natural disasters and man-made disasters with two examples each.
6. Outline the major provisions of the Environment Protection Act, 1986.
7. Explain the mechanism and benefits of incineration in municipal waste disposal.

III Write any FIVE ONLY of the following

(5×4 marks = 20 marks)

1. Write in detail on the causes, health effects, and particulate/gaseous control measures for air pollution.
2. Explain the mechanism of global warming and climate change, outlining their global environmental impacts.

3. Discuss the significance of Information Technology (IT) in environmental monitoring and human health management.
4. Classify solid wastes and describe the process, inputs, and advantages of biogas production.
5. Explain the mechanism of acid rain formation, its damage to structures/ecosystems, and control measures.
6. Describe the National Disaster Management Framework in India, including its administrative and financial arrangements.
7. Elaborate on the causes, health/physiological impacts, and control techniques for Noise Pollution and Soil Pollution.

IV Write essay on any ONE ONLY of the following

(1×10 marks = 10 marks)

1. List out the natural disasters. Write causes, effects and mitigation measures for flood and earthquakes.
2. Discuss in detail on the causes, impacts, and management strategies for urban and industrial wastes.