

Unique Paper Code : 72182801_OC

Name of Paper : **Environmental Studies**

Name of Course : **Ability Enhancement Compulsory Course – I (AECC-1)**

Semester : **I**

Duration: **2 hours**

Maximum marks: **75**

Note: Answer *either* in English *or* Hindi. The same medium should be used throughout the paper.

Attempt any *four* questions

All questions carry *equal* marks

1. You are the one among seven college students who are part of a group discussion. Each of the students is pursuing one of the six disciplines at the undergraduate level, namely, B.Com. (H), B.A. (H) Political Science, B.Sc. (H) Electronics, B.A. (H) Journalism, B.Sc. (H) Chemistry, and B.A. LL.B. **Explain how you would convince each one of them that their respective discipline has a lot to contribute to understanding impacts of air pollution and developing ways to reduce its intensity and impact.**
2. “Desert areas in India are a unique ecosystem that is ecologically, socially, and economically very important but at the same time are threatened due to human population pressure”. **Justify this statement giving relevant examples and arguments.**
3. During a recent visit to your village in south India, you come to know that a multinational company is setting up its pesticide manufacturing unit in the outskirts of the village. The villagers are not much aware of the possible harmful impacts of such an industry in their village. Based on your knowledge about **Bhopal Gas Tragedy** and **Minamata Disease Tragedy**, explain the potential harm of this industry to the villagers. Also, suggest ways how villagers should coordinate with the government and the company to avoid any such tragedy in the village.

4. Malabar civets, a critically endangered species is also endemic to the Western Ghats. They are currently distributed in the forests of Kerala and Karnataka. Habitat destruction, habitat fragmentation, poaching, and hunting are the major threats faced by the species. **Explain how you can facilitate conservation of this species using both ex-situ and in-situ conservation strategies.**

5. Explain with suitable examples, why Indian megacities are more prone to facing water crisis in the next decade. As a resident of Delhi and as a concerned citizen, suggest some water conservation policies that the State Government should adopt in their masterplan for the next 10 years (till 2030).

6. Soil samples were collected from different land use areas. When these samples were assessed, then the corresponding major contaminants were found as shown in the table.

Soil Sample	Major contaminants	Land Use
A	Metallic residues, plastic, thermocol	Commercial
B	DDT, endosulfan, nitrates, animal manure, fertilizers and biosolids (sewage sludge), urea	Agriculture
C	Plastic, glass, human excreta, organic contaminants from food, poultry farms	Residential
D	Heavy metals like mercury, cadmium	Industrial

Based on the above table, suggest the possible soil management methods for the soil sample B and D; compare the soil sample A and D in terms of their potency to contaminate underground or surface water; and discuss the impact of contaminants in soil sample B on agricultural productivity and human health.