

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 7312 L

Unique Paper Code : 2183012011

Name of the Paper : Environmental Indicators

Name of the Course : **B.Sc. Environmental Sciences (Discipline Specific Elective-11)**

Semester : VIII

Duration : 2 Hours Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Answer any **four** questions.
3. **All** questions carry equal marks.

1. (a) Define and explain the concept of environmental indicator, environmental monitoring, and sustainability indicator. (10)

(b) Explain the relevance of environmental indicators in sustainability assessment and public communication. (5)

2. Differentiate between the following : (5×3=15)

(a) Air quality standards and air quality guidelines

(b) Surface water indicators and groundwater indicators

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(c) Species richness and species diversity

3. Write short notes on the following : (3½×4=15)

(a) Principles of environmental indicator selection

(b) Environmental indicator reporting

(c) Criteria air pollutants

(d) Indoor air quality and health

4. (a) Explain major air pollution sources and emissions.

(7)

(b) Discuss the health effects of particulate matter, ozone, nitrogen oxides, sulfur dioxide, carbon monoxide, volatile organic compounds and lead.

(8)

5. (a) Explain water pollution sources and pathways.

(7)

(b) Discuss dissolved oxygen, pH, temperature, turbidity, nutrients, chlorophyll-a, BOD, fecal coliform bacteria and total dissolved solids as water quality indicators.

(8)

6. Discuss climate change indicators with reference to greenhouse gas emissions, carbon dioxide concentration, global temperature, sea-level rise, ocean acidification, extreme weather events, glaciers, ecosystem productivity, species phenology and human health. (15)

(100)

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