

Serial No. Question Paper:9990

Unique Paper Code: 2183013601

Name of the Course: Methods in Environmental Research (DSE-19)

Name of the Programme: Undergraduate Courses Environmental Sciences – Elective

Semester: VII

Duration: 2 Hours

Maximum Marks: 60

Instructions for Candidates

Write your Roll No. on top immediately upon receipt of this question paper.

Attempt any **four** questions. All questions carry **equal** marks.

1. Write short notes on any three of the following: [5×3=15]
 - a) Structure of a scientific research paper (IMRAD)
 - b) Experimental design in environmental studies
 - c) Safety protocols in field and lab research
 - d) Use of environmental databases in research
2. Differentiate between any three of the following: [5×3=15]
 - a) Primary and secondary data sources
 - b) Random sampling and systematic sampling
 - c) Statistical significance and effect size
 - d) Ethical vs. legal issues in environmental research
3.
 - a) What are the strategies and key considerations in performing a systematic literature review for environmental science? [10]
 - b) How does referencing style contribute to scientific integrity? Give examples. [5]
4.
 - a) Describe how correlation and ANOVA can be used to analyze environmental data, using examples. [10]
 - b) Identify one environmental issue best studied using descriptive statistics and justify your choice. [5]
5.
 - a) Discuss the relevance of ethical clearance and informed consent in environmental field research. [10]
 - b) What are the challenges in visualizing multi-variable environmental datasets? [5]
6. Discuss how applied research contributes to policy-making in any two of the following domains: [15]
 - (i) Urban atmospheric research
 - (ii) Riverine ecosystem studies
 - (iii) Forest ecology monitoringSupport with suitable examples