

B.Sc. 2nd Semester (Honours) Examination, 2021

ENVIRONMENTAL SCIENCE

Course ID: 21812

Course Code: SH/ENV/202/C- 4

Course Title: Land and Soil Conservation and Management

Time: 1 hr 15 min.

Full Marks: 25

*The figures in the right hand side margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.*

1. **Answer any five from the following questions:** **1 × 5= 5**
- a) Distinguish between soil resistance and soil resilience.
 - b) What do you mean by soil quality index?
 - c) What is parent rock?
 - d) Define Podzol soil.
 - e) Mention the mineralogical composition of black cotton soil.
 - f) What is the good level of organic matter in soil?
 - g) How salinization occur in soil?
 - h) Define soil profile.
2. **Answer any two from the following questions:** **5 × 2= 10**
- a) What is the cause of desertification? Discuss briefly the major types of soil erosion process. 1+4=5
 - b) What are the main causes of land degradation? Write down the effect of land degradation on biodiversity. 2+3=5
 - c) Discuss briefly the role of databases and data analysis in land-use planning control and management.
 - d) Write notes on (any one):
 - i. Restoration of soil fertility
 - ii. Visual indicators of land degradation
3. **Answer any one from the following questions:** **10 × 1= 10**
- a) Explain how the properties of colloids in natural soils affect the environmental quality. Briefly discuss the importance of soil-air in plant growth and biological activity in soil. 5+5
 - b) What do you mean by soil pollution? How pesticide absorbed in soil? Discuss briefly the measures for prevention of soil erosion. 2+3+5