

B.Sc. 3rd Semester (Honours) Examination, 2021

ENVIRONMENTAL SCIENCE

Course ID: 31811

Course Code: SH/ENV/301/C-5

Course Title: Ecology and Ecosystem

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 questions from the following: (1 x 5 = 5)

- a) What is population dispersion?
- b) What are the 5 stages of succession?
- c) State the importance of nutrient budget.
- d) What are the steps of nutrient cycle?
- e) What does a survivorship curve represent?
- f) Is edge effect good or bad?
- g) What does Autecology mean?
- h) What is an Ecocline?

2. Answer any two questions from the following: (5 x 2 = 10)

- a) What is nutrient management? How can you reduce nutrient losses? 2+3 = 5
- b) What are the four stages of biological invasions? How is biological invasion threat to biodiversity? 2+3 = 5
- c) Define symbiotic relationship with example? How do protocooperation and mutualism resembles and differ? 2+3 = 5
- d) What does the law of minimum state? What are the differences between R and K strategists? 2+3 = 5

3. Answer any one question from the following: (10 x 1 = 10)

- a) What are the two types of mycorrhizae? What role does mycorrhizae play in a forest ecosystem? What is meant by nutrient efficiency? How can we improve nutrient efficiency? 2+3+2+3 = 10
- b) What is the law of tolerance in environmental science? What are the 3 types of tolerances? What is the difference between acclimatization and acclimation? Describe the process of acclimation? 2+3+2+3 = 10