

B.Sc. 4th Semester (Honours) Examination, 2021-22

ENVIRONMENTAL SCIENCE

Course ID: 41811

Course Code: SH/ENV/401/C-8

Course Title: Systematics and Biogeography

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 followings: 1X5=5

- a) Define systematics.
- b) What do you mean by 'extinction'?
- c) Who proposed the continental drift theory and in which year?
- d) What do you mean by 'niche'?
- e) What is Biosphere reserve?
- f) Define genetic drift.
- g) State Gloger's rule.
- h) What is endemic species?

2. Answer any two questions from the followings: 5X2=10

- a) Write down in brief about phylogenetic concept of species.
- b) Write a short note on: 2½ + 2½
 - i) Convergence
 - ii) Phylogenetic tree
- c) What are the drawbacks of continental drift theory? What is commonness? 3+2
- d) Write a brief note on different types of 'speciation'.

3. Answer any one question from the followings: 10 x1=

10

- a) What are the applications of biogeographical rules in design of protected area?
Explain the equilibrium theory of insular biogeography. 4+6
- b) State the principles and rules of Botanical nomenclature. What are exotic and cosmopolitan species? 6+2+2