

**B.Sc. 4<sup>th</sup> Semester (Honours) Examination, 2021**

**ENVIRONMENTAL SCIENCE**

**Course ID: 41811**

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

**Course Title: Systematics & 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* from the following questions:**

**1 X 5 =5**

- a) Who coined the term palynology?
- b) How do you read a phylogenetic tree?
- c) What factors causes adaptive radiation?
- d) Who proposed the concept of taxonomic hierarchy?
- e) Why phylogeography is important?
- f) What are protected areas?
- g) Which animal is the biggest hybrid animal?
- h) What is Allen and Bergmann's rules?

**2. Answer *any two* from the following questions:**

**5 X 2 =10**

- a) State the continental drift theory with a diagram.
- b) State the process of speciation.
- c) How DNA barcoding used in taxonomy?
- d) State the importance of gene in study of evolution.

**3. Answer *any one* from the following questions:**

**10 X 1 =10**

- a) State the use of remote sensing in conservation planning.

Write a short note on biosphere reserves.

5 + 5

- b) State the classification given by Bentham and Hooker. Write the types and rules of author's nomenclature.

5 + 5