

B.Sc. 5th Semester (Honours) Examination, 2021

ENVIRONMENTAL SCIENCE

Course ID: 51812

Course Code: SH/ENV/502/C-12

Course Title: Organismal and Evolutionary Biology

Time: 1 hr. 15 min.

Full Marks: 25

The figures in the 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 × 5 = 5**

- a) What is paleontology?
- b) What is organism?
- c) What is cell?
- d) What do you mean by mutation?
- e) What is variation?
- f) What is populations?
- g) Define gene pool.
- h) What is gene frequency?

2. Answer any *two* questions from the following: **5 × 2= 10**

- a) Write on origin of unicellular and multi cellular organisms on the basis of Evolutionary Synthesis.
- b) What is the concept of Oparin-Haldane hypothesis?
- c) Write on migration and genetic drift.
- d) What is co- evolution? What is the concept of Hardy-Weinberg Law? **2 + 3 = 5**

3. Answer any *one* question from the following: **10 × 1 = 10**

- a) What are the evolutionary time scales? What are the major events in the evolutionary time scale? **5 + 5 = 10**
- b) What is evolution? Discuss Lamarck's concept of evolution. **2 + 8 =10**