M.Sc. 4th Semester Examination, 2021

SUBJECT: BOTANY

Course Code: 401C(T)   **Course ID: 41351**

COURSE Title: Ecology and Evolution

Time: 2Hours   **Full Marks: 30**

Group- A (Ecology)

1. Answer *any two* of the following: 1x2=2
   (a) What is Leibig's law of limiting factor?
   (b) What is biological spectrum?
   (c) What is subsere?
   (d) What is a biome?

2. **Answer*any one* of the following:**   **5x1=5**

   (a) Describe the different type of species interactions with examples. 3+2=5
   (b) Define ecological efficiency. What are the steps to understand ecological efficiency of an ecosystem?   2+3=5

3.Answer *any one* of the following: 8x1=8

 (a) What are green house gases? Mention the effects of green house gases in the contextof global environment change.   2+6=8

  (b)Explain community dynamics with special reference to the major attributesand stability.3+3+2=8

Group -B (Evolution)

4. **Answer *any two* of the following:**   **1x2=2**

 (a) What is deme?

 (b) What is Hardy Weinberg principle?

(c) What is gene pool?

(d) What is micro-evolution?

5.   Answer *any one* of the following: 5x1=5

 (a) Discuss the origin and distribution of plants through geological ages in a tabular form.   5

  (b)   Describe the different steps of chemical origin of life.   5

6.   Answer *any one* of the following: 8x1=8

 (a) What do you mean by Darwinism? Explain that the natural selection is the driving force ofevolution.   2+6=8

 (b) Write a brief note about pre- Darwinian theories on evolution.   8