

Total Pages-02

RNLKWC/B.Sc./CBCS/IVS/C9T/22

**2022**

**BOTANY**

**[Honours]**

**(B.Sc. Fourth Semester End Examination-2022)**

**PAPER-C9T**

*Full Marks: 40*

*Time: 02 Hrs*

*The figures in the right hand margin indicate marks  
Candidates are required to give their answers in their own words as  
far as practicable*

*Illustrate the answers wherever necessary*

**PLANT ECOLOGY & PHYTOGEOGRAPHY**

- 1. Answer any FIVE question: 5 x 2=10**
- a) What is phytochorion?
  - b) Distinguish between sere and subsere
  - c) Define homeostasis.
  - d) What do you mean by ecological niche?
  - e) Define endemism.
  - f) What is nutrient budget?
  - g) Name two nitrogen fixing bacteria which helps in denitrification?
  - h) Differentiate potential natality from realised natality.
  - i) What is meant by post transcriptional modification of protein?

(2)

2. Answer any FOUR of the following: 4x5=20
- a) Write short notes on: 2.5+2.5
- i. Productivity of an ecosystem
  - ii. Ecological pyramid.
- b) Describe any two energy flow model with flow chart 2.5+2.5
- c) What is continental drift? Define stratification & periodicity. 2 ½ +2 ½
- d) Describe any five characteristics of a population. Define environmental resistance. 4+1
- e) Distinguish between primary & secondary succession. Depict the various seral stages of aquatic to terrestrial succession. 2+3
- f) Why nutrient cycle also referred to as biogeochemical cycle? What do you mean by topsoil? What master horizon is characterized by accumulation of clay sized particles? 2+2+1
3. Answer any ONE question: 1 x 10=10
- a) Comment on any two from the following: 5+5
- j) Climax concept
  - iv) r & k strategies
  - v) Vegetation characters of Eastern Himalaya.
- b) What do you mean by speciation? Write down the different types of speciation with suitable illustration. 2+8