

## U.G. 4th Semester Examination - 2020

**BOTANY****[HONOURS]**

Course Code : BOT-H-CC-T-09

Full Marks : 40

Time : 2½ Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*1. Answer any **five** of the following questions :

2×5=10

- Differentiate between homeostasis and homeorhesis.
- Differentiate between Ecological niche and habitat.
- Characterize 'A' and 'O' horizons of soil.
- Name two biological components of soil responsible for soil fertility.
- Mention two importance of Hydrological Cycle.
- Mention two photosynthetic adaptations in xeric environment.

g) What are the measurable attributes of plant community? Cite examples.

h) Differentiate between gross primary productivity and net primary productivity.

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

5×2=10

- Write a short note on Role of climate in soil development.
- How high altitude plants adapt themselves against wind velocity? Explain.
- Write a short note on different types of symbiosis developed in Angiosperms.
- Write a short note on *Continental drift*.

3. Answer any **two** of the following questions:

10×2=20

- Define population. Write a comparative account life history strategies of r and k selected species.
- Why is succession called as dynamic process? With suitable diagrams discuss different models to explain Ecological succession.

2+8=10

c) Define Bio-geochemical cycle. With suitable flow chart explain Phosphorus cycle. How does Nitrogen fixation differ from Nitrogen assimilation?  $2+6+2=10$

d) Define Holoendemics. Write name of an endemic Angiosperm family and its area of confinement. Write an account on climatic condition and species composition of tundra biome.  $2+(1+1)+(3+3)=10$

-----