

## U.G. 4th Semester Examination - 2022

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

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

(Plant Ecology and Phytogeography)

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

- What is edge effect?
- Distinguish between autogenic and allogenic succession.
- Write the scientific names of two palms grow in the mangrove swamp of sundarban.
- Define detritus food chain.
- What is indicator species? Cite an example.
- Name one endemic species each from Eastern Himalaya and Western Ghat.

*[Turn Over]*

g) What are ecological efficiencies?

h) Name two taxa of flowering plants having discontinuous distribution.

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

5×2=10

- Write in brief the role of climate in soil development.
- Discuss the adaptations that favour the plants to survive from fire.
- Explain the "age and area hypothesis of endemism" citing suitable examples.
- Write the significance of phosphorus in biological system and represent phosphorus cycle through word diagram. 2+3

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

10×2=20

- Give a comparative account about vegetation of Eastern and Western Himalaya. Write the characteristic features of Tundra vegetation. 7+3
- What is climax community? Mention the differences between climatic and edaphic climax. Describe the various seral stages of lithosere with suitable diagram. 2+2+6

c) What are the basic patterns of dispersion in population? Describe the principles and models of energy flow in ecosystem. What is pedon?  $2+6+2$

d) Distinguish between :  $2\frac{1}{2} \times 4$

i) Habitat and niche

ii) Ecospecies and ecotypes

iii) Commensalism and antibiosis

iv) Standing crop and standing quality

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