

U.G. 3rd Semester Examination - 2021**BOTANY****[HONOURS]****Course Code : BOT-H-CC-T-05****(Diversity of Bryophytes and Pteridophytes)**

Full Marks : 40

Time : $2\frac{1}{2}$ 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

- Mention two (one each from vegetative and reproductive) adaptive features of Archegoniatae for land habit.
- Distinguish between calyptra and perigynium.
- Mention the position and function of columella in *Anthoceros*.
- Distinguish between elater and pseudoelater.
- Name a Pteridophyte used in agriculture stating its use.
- Distinguish between sorus and synangium.

g) Distinguish between primary and secondary protonema.

h) Write briefly on spore of *Equisetum*.2. Answer any **two** of the following questions:

5×2=10

- Write short note on Antithetic theory of alternation of generation in Bryophytes.
- Write short note on economic importance of Bryophytes.
- Write short note on apospory and apogamy.
- Briefly describe the soral morphology and anatomy in *Pteris* with suitable diagrams.

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

10×2=20

- Describe with labelled sketches the progressive theory of evolution of sporophytes in Bryophytes. 10
- Write short notes on: 5+5=10
 - Male reproductive structure in *Marchantia*.
 - Algal origin of Bryophytes.

- c) What is heterospory? What are the advantages of seed habit? Discuss how far *Selaginella* reaches the seed habit. $1+3+6=10$
- d) What is telome? Define the different elementary processes associated with the Telome concept. Explain how the origin of reproductive structures in Lycopsidea and Pteropsida could be explained with the help of Telome concept. $2+4+4=10$
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