

**B. Sc. I General Science Semester II Examination, June 2022**  
**BOTANY**  
**Paper III: Biodiversity of Archegoniate: Bryophytes, Pteridophytes**  
**and Gymnosperms (BBT 201)**  
**Subject Code: 15002**  
**Question Bank**

**Q.1 Define following Term/Answer in one sentence.**

- 1) Which plants are known as amphibians and reptiles of the plant kingdom respectively?
- 2) Where are scales present on the thallus of *Riccia*?
- 3) What is Impression type of fossil?
- 4) What is the definition of Stele?
- 5) Which gymnosperm is the link between gymnosperms and angiosperms?
- 6) Why are Bryophytes known as amphibians of plant kingdom?
- 7) What is heterospory?
- 8) What is Compression type of fossil?
- 9) What is the habit of *Selaginella*?
- 10) The stem of which gymnosperm is a source of starch?
- 11) What is the meaning of *Pteron* from which the word Pteridophytes has been derived?
- 12) Which Bryophyte is found most commonly on moist walls and tree trunks as a velvety growth?
- 13) What is Petrification type of fossil?
- 14) What is the habit of *Gnetum*?
- 15) Which feature of *Selaginella* gives it evolutionary importance?
- 16) What is a fossil?
- 17) What are the two types of rhizoids present in *Riccia*?

- 18) Which two type of roots are found in *Cycas*?
- 19) What are the two types of leaves found in *Cycas*?
- 20) How are coal balls formed?
- 21) What type of wood is present in gymnosperms?
- 22) *Gnetum* is the connecting link between which two groups of plant kingdom?
- 23) Which time of the year is ideal to collect bryophytes and pteridophytes?
- 24) What is alternation of generation?
- 25) Which plant group represents the first vascular plants on earth?

## **Q.2 Long answer questions.**

- a) Discuss in detail the modes of reproduction in *Riccia*.
- b) Discuss in detail the morphology and life cycle of *Funaria*.
- c) Discuss in detail the morphology and life cycle of *Pteris*
- d) Discuss in detail the morphology and life cycle of *Selaginella*.
- e) Discuss in detail the morphology and life cycle of *Cycas*.
- f) Explain in detail the types of fossils.
- g) Give a detailed comparative account between bryophytes and pteridophytes.
- h) Give a detailed comparative account between gymnosperms and pteridophytes.
- i) Give a detailed comparative account between bryophytes and gymnosperms.
- j) Discuss in detail the modes of reproduction of *Selaginella*.
- k) Discuss in detail the modes of reproduction of *Cycas*.

## **Q.3 Short answer questions**

- i) Elaborate the general characters of Bryophytes.

- ii) Explain the economic importance of Gymnosperms?
- iii) Are Pteridophytes useful or harmful for us? Justify your answers with examples.
- iv) Discuss the importance of palaeobotany.
- v) Discuss the importance of Heterospory.
- vi) Discuss the evolutionary importance of *Gnetum*.
- vii) Elaborate the general characters of Pteridophytes.
- viii) Explain the ecological importance of Bryophytes?
- ix) Discuss the general characters of *Gnetum*.
- x) Explain the economic importance of pteridophytes.
- xi) Explain the xerophytic features seen in *Cycas*.
- xii) Discuss the evolutionary importance of *Selaginella*.
- xiii) Elaborate the evolutionary importance of Pteridophytes.
- xiv) Explain the general characters of Bryophytes?
- xv) Discuss the economic importance of *Cycas*.
- xvi) Discuss the importance of geological time scale.
- xvii) Discuss the structure of *Funaria* sporophyte.
- xviii) Discuss the structure of strobilus in *Selaginella*.
- xix) Discuss the structure of megasporophylls in *Cycas*.
- xx) Discuss the general structure and function of prothallus in pteridophytes.

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**B. Sc. I General Science Semester I**  
**Plant Taxonomy (Paper IV, BBT 202)**

**Question Bank**

**Define the following terms**

1. Binomial Nomenclature
2. Botanical garden
3. Classification
4. Identification
5. Double fertilization
6. Endosperm
7. Female gametophyte
8. Male gametophyte
9. Flora
10. Flower
11. Herbarium
12. ICBN
13. Identification
14. Monograph
15. Nomenclature
16. Natural systems of classification
17. Artificial systems of classification
18. Phylogenetic systems of classification
19. Taxonomy

**Long answer questions**

1. Describe the family Fabaceae and write a short note on its economic importance.
2. Describe the family Liliaceae and write a short note on its economic importance.
3. Describe the family Solanaceae and write a short note on its economic importance.
4. Describe the family Nyctaginaceae and write a short note on its economic importance.
5. Describe the life cycle pattern in angiosperms.
6. Describe the process of making of herbarium.

7. Describe the Sir J. C. Bose Botanical Garden, Kolkata in details.
8. Describe the Lead Botanical Garden, Shivaji University, Kolhapur in details.
9. Explain the roles and significance of botanical gardens.
10. Explain the roles of herbarium in academics and research.
11. Explain the salient features of International Code of Botanical Nomenclature (ICBN).
12. Explain the functions of taxonomy.
13. Give the general outline of Bentham and Hooker's system of classification with its merits and demerits.

### **Short notes**

1. Artificial system of classification
2. Binomial nomenclature
3. Demerits of Bentham and Hooker's system of classification
4. Description of family Fabaceae
5. Description of family Liliaceae
6. Description of family Nyctaginaceae
7. Description of family Solanaceae
8. Economic importance of family Fabaceae
9. Economic importance of family Liliaceae
10. Economic importance of family Nyctaginaceae
11. Economic importance of family Solanaceae
12. General characters of Angiosperms
13. Flora
14. Merits of Bentham and Hooker's system of classification
15. Monograph
16. Natural system of classification
17. Phylogenetic system of classification
18. Principles of ICBN
19. Role and significance of botanical garden
20. Roles of herbarium
21. Salient features of International Code of Botanical Nomenclature (ICBN)
22. Significance of herbarium