



বিদ্যাসাগর বিশ্ববিদ্যালয়

VIDYASAGAR UNIVERSITY

B.Sc. Honours Examination 2021

(CBCS)

4th Semester

BOTANY

PAPER—C10T & C10P

PLANT SYSTEMATICS

Full Marks : 60

Time : 3 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

THEORY : C10T

Group – A

Answer any *two* questions.

2×15

1. What is phylogenetic system of plant classification? Give an outline of Engler and Prantle's system of plant classification up to series. Write the merits and demerits of this classification. 2+8+5

2. Briefly describe the origin and evolution of Angiosperm. What is Numerical taxonomy? How characters are weighting and coding in Numerical taxonomy? What are the phenograms and cladograms? 6+2+4+3
3. Describe the principles of ICN. What is author citation? Discuss different types of author citations used in plant taxonomy with examples. 5+2+8
4. What is a herbarium? Discuss the functions of a herbarium. Name two herbaria each from India and abroad with their location and acronyms. 2+7+6

Group – B

Answer any *one* question. 1×10

5. Discuss the Principle of Priority. Mention its limitations. Write a note on phylogenetic tree. 4+2+4
6. Briefly enumerate the following pairs: 2.5×4
 - i) Syntype and Paratype
 - ii) Convergence and Parallelism
 - iii) Monophyly and Polyphyly
 - iv) Flora and Monographs

PRACTICAL : C10P

Answer any *one* question. 1×20

1. Draw and describe a suitable flowering twig of *Solanum nigrum* or *Sida* sp. and mention the identifying characters of the family of the specimen.

(*Drawing and labeling - 6, Description - 6, FF -1, FD - 3, family identifying characters- 4*)

- 2.** Draw and describe a suitable flowering twig of *Crotalaria* sp. or *Cassia* sp. and write down the identifying characters of the family of the specimen.

(Drawing and labeling - 6, Description - 6, FF -1, FD - 3, family identifying characters - 4)

- 3.** Write down the process of preparation of dry herbarium specimen. Prepare a list of essential requirements for the local field visit. Briefly discuss the role of herbarium and botanical garden for taxonomic study.

8+4+8

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