WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 4th Semester Examination, 2023

BOTACOR10T-BOTANY (CC10)

Time Allotted: 2 Hours   Full Marks: 40

The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.

1. Answer the following questions: 1×6 = 6
   (a) Who is regarded as the 'Father of Indian Botany'?
   (b) What do you mean by natural system of classification?
   (c) What is meant by 'CAL'?
   (d) What is 'nomen ambiguum'?
   (e) What is alpha taxonomy?
   (f) Define Taximetrics.

2. Answer any *eight* questions from the following: 3×8 = 24
   (a) Write a short note on the contribution of Linnaeus to plant taxonomy.   3
   (b) Write three hierarchical ranks of plants above the rank of genus in proper sequence with example.   3
   (c) Compare isotype and paratype with examples.   3
   (d) What are semantides? How do they differ from secondary metabolites?   2+1
   (e) Give a brief idea of Virtual Herbarium and mention its significance.   2+1
   (f) Distinguish between monographs and journals giving one example for each.   3
   (g) Explain 'parallelism' and 'convergence' in term of evolution. $1\frac{1}{2}+1\frac{1}{2}$
   (h) Name the major informal groups of APG-III classification, 2009. Write two basic differences of this classification from other phylogenetic systems.   2+1
   (i) Discuss the concept of OTU and OEU.   3
   (j) Differentiate indented and bracketed keys.   3
   (k) Name two Botanical Gardens present in West Bengal. Name the largest Botanical Garden of the world.   1+1+1
   (l) Write the full form of ICBN and ICN. Name the First code of Botanical Nomenclature and mention its year.   2+1

3. Answer any *two* questions from the following: 5×2 = 10
   (a) Write the principles of ICN in proper sequence.   5
   (b) Give an outline of Engler and Prantl's system of classification upto subclasses with salient features. Point out one of its merits and demerits.   4+1
   (c) Give a brief idea of Biological species concept. Mention its limitations.   3+2
   (d) Enumerate the pollen characters of Taxonomic importance. Cite two examples for application as taxonomic markers.   2+3

——×——