



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 4th Semester Examination, 2022

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) What is omega taxonomy?
 - (b) Give one example of autonym.
 - (c) What do you mean by the word phylogeny?
 - (d) Why is Artificial System of classification named so?
 - (e) Name the graphical diagrams which show phenetic and phylogenetic relationship respectively.
 - (f) The species which are reproductively isolated but morphologically similar are designated by which name?
2. Answer any **eight** questions from the following: 3×8 = 24
- (a) Enumerate the functions of Botanical Gardens. 3
 - (b) What is e-flora? Discuss its applications. 1+2
 - (c) Write the principles of ICBN in correct sequence. 3
 - (d) Write the conditions for rejection of taxonomic names. 3
 - (e) Write salient features of taxonomic hierarchy structure. 3
 - (f) What do you mean by principle of priority and mention its limitations. 2+1
 - (g) What is meant by plesiomorphy? Differentiate between synapomorphy and symplesiomorphy. 1+2
 - (h) Explain with one example the meanings of “ex”, “in” and parenthesis in authors’ citation. 3
 - (i) Differentiate between Manual and Monograph. What is virtual herbarium? 2+1
 - (j) Write the conditions for valid publication. 3
 - (k) Differentiate character and character states. What is Morphocline? 2+1
 - (l) Mention the significant contributions of Linnaeus. 3

3. Answer any *two* questions from the following: 5×2 = 10
- (a) Give the outline of Bentham and Hooker's system of classification up to series. Mention two prime merits and demerits of this classification. 3+2
- (b) What do you understand by nomenclatural types? Explain any four of that with examples. 1+4
- (c) What are secondary metabolites? Mention with examples the role played by secondary metabolites in taxonomy. 1+4
- (d) Differentiate between Homology and Analogy. Explain the terminologies — Monophyly, Paraphyly and Polyphyly with line drawing. 2+3

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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