



## WEST BENGAL STATE UNIVERSITY

B.Sc. Honours Part-II Examination, 2020

### BOTANY

#### PAPER: BOTA-IV

Time Allotted: 2 Hours

Full Marks: 50

*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.*

**Two marks will be awarded for neat and tidy work on the answer sheets**

**Answer any *three* questions from the following**

16×3 = 48

1. Describe with diagrams and examples the different types of cymose inflorescences. Briefly describe the stratification and sculpturing of spore and pollen wall. 10+3+3
2. Define – botanic garden. Name two important botanic gardens in West Bengal. Discuss the role of botanical garden in taxonomy. Give an outline of Bentham and Hooker's classification of the dicots up to series. Name the book where this system was proposed. 2+2+6+5+1
3. State the principles of ICBN. Name the main ranks of taxonomic hierarchy as recognized under ICBN. Explain the author citation in the following: 6+4+2+2+2  
*Catharanthus roseus* (Linn.) G. Don  
*Stellaria sikkimensis* Hook.f.  
*Acalypha racemosa* Wall. ex Benth.
4. Distinguish between the following pairs of families on the basis of the features mentioned in parentheses and mention the botanical name of one economically important plant under each of them. (2+2)×4  
(i) Solanaceae and Scrophulariaceae (Corolla)  
(ii) Compositae and Cucurbitaceae (Androecium)  
(iii) Malvaceae and Magnoliaceae (Gynoecium)  
(iv) Apiaceae and Alismataceae (Fruit)
5. Define – phytogeography. Name the different phytogeographical regions of India as recognized by D. Chatterjee (1960) in correct sequence. Characterize the dominant flora of Eastern Himalayas citing suitable examples. Name three endemic plant species of this region. 2+3+8+3
6. Define – succession. Distinguish between primary and secondary succession with examples. Elucidate the seral stages in aquatic habitat. 2+4+10

**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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