

**B.Sc. (Honours) Examination, 2019**  
**Semester – IV (CBCS)**  
**Botany**  
**Paper: CC-10**  
**(Plant Systematics)**

**Time: Three Hours**

**Full Marks: 40**

Questions are of value as indicated in the margin

Answer question **No. 1** and **any four** from the rest.

1. Write in brief about **any four** of the following  $4 \times 2 = 8$ 
    - a. Homology
    - b. Paraphyly
    - c. Taxonomic Keys
    - d. Basionym
    - e. Numerical taxonomy
    - f. Cladogram
  2. What is meant by natural and phylogenetic classification? Give a brief outline of Bentham and Hooker's system of classification of angiosperm. Mention its merits and demerits.  $2+4+2=8$
  3. What is chemotaxonomy? Discuss the role of protein and nucleic acid in solving taxonomic problems, citing suitable examples.  $2+3+3=8$
  4. What is herbarium? Briefly discuss the role of herbarium in taxonomic research. Write names and their acronyms of four herbaria, two from India and two from abroad.  $1+3+4=8$
  5. What is meant by Co-evolution? Add a note on the Co-evolution of angiosperms and animals.  $2+6=8$
  6. What is ICN? State the principle of priority with examples and discuss its limitations.  $2+2+4=8$
  7. Distinguish between the following  $4+4=8$ 
    - a. Poaceae and Cyperaceae
    - b. Acanthaceae and Scrophulariaceae
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