

**PG CBCS**  
**M.Sc. Semester-IV Examination, 2019**  
**BOTANY**  
**PAPER: BOT-402**  
**Special paper I**  
**(ANGIOSPERMS TAXONOMY)**

**Full Marks: 40****Time: 2 Hours**

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- 1. Answer any four of the following: 4×2**
- a) Define homoplasy. Cite an example. 1+1
  - b) Mention the contribution of William Roxburgh in Indian Botany.
  - c) Who had established Botanical survey of India? Mention the year of establishment. 1+1
  - d) Define phylocode.
  - e) Define seed bank. Cite an example. 1+1
  - f) Name two exotic plants with their respective family.
  - g) What is hotspot? Cite an example.
  - h) What is Index Kewensis? State its importance.
- 2. Write short notes on any four of the following: 4×4**
- a) Nomenclatural types;
  - b) Eudicots;
  - c) Activities of B.S.I.;
  - d) Parallelism and convergence;
  - e) Terrestrial biomes;
  - f) Flora and vegetation;
  - g) *In-situ* and *ex-situ* conservation;
  - h) Plaeoherbs.



(2)

**3. Answer any two of the following:****8×2**

- a) Define biodiversity. State the different levels of biodiversity. Discuss on the strategies of conservation of biodiversity in India based on the categories of IUCN. 1+3+4
- b) Define molecular biology. Discuss on the importance of chloroplast DNA in taxonomic study. What are semantides? 2+4+2
- c) Define endemics and endemism. Briefly discuss the different types of endemism with examples. Mention one endemic species of India and their distribution. Is there any endemic family in India? 1+1+4+1+1
- d) Briefly discuss the role of palynological characters in taxonomic study. Cite two such examples where palynological characters are used to solve taxonomic problems. 4+2+2

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