

Shivaji University, Kolhapur
Question Bank For Mar 2022 (Summer) Examination

Subject Code :**84536** Subject Name: **Angiosperm Systematics**

Q.1.

- A. Discuss the role of Botanical Gardens in teaching, research and conservation.
- B. Taxonomy plays an important role in documentation and bioprospecting of biodiversity. Justify.
- C. Explain the six principles of ICN with suitable examples.
- D. Discuss the history of Botanical Nomenclature. Add a note on principle of priority.
- E. Give an account of some important herbaria of the world and India.

Q. 2.

- A. Define speciation. Discuss its kinds.
- B. Explain with the help of example pre mating reproductive isolating mechanisms.
- C. Explain with the help of example post mating reproductive isolating mechanisms.
- D. Discuss adaptive radiation. Add a note on punctuated equilibrium.
- E. What is speciation? Discuss in detail about biological species concept.

Q. 3.

- A. Define phenetics. Describe its principles and methodology.
- B. What is numerical taxonomy? Describe its methodology, merits and demerits.
- C. What is cladistics. Describe its methodology, merits and demerits.
- D. Discuss APG IV system of classification.
- E. Give a historical account of systems of classification. Add a note on APG IV.

Q. 4.

- A. Provide diagnostic features and economic importance of Nymphaeaceae, Araceae, Arecaceae and Sapotaceae
- B. Provide diagnostic features and economic importance of Papaveraceae, Malvaceae, Acanthaceae and Apiaceae
- C. Provide diagnostic features and interrelationships of Amaranthaceae, Malpighiaceae, Gentianaceae and Asteraceae
- D. Provide diagnostic features and economic importance of Asteraceae, Araceae, Sapotaceae and Magnoliaceae
- E. Provide diagnostic features and interrelationships of Magnoliaceae, Hydatellaceae, Amaranthaceae and Gentianaceae

Q. 5.

- A. Botanical Gardens in India/Role of herbaria in conservation/conserved names/effective publication/important websites for taxonomic literature
- B. Transference of function/allopatric and sympatric speciation/apomictic speciation/hybrid floral isolation/adaptive radiation

Q. 6.

- A. Principles of numerical taxonomy/merits of phenetics/reasons for homoplasy/outline of APG classification
- B. Economic importance and characteristic features of Asteraceae and Apiaceae/diagnostic features interrelationships of Magnoliaceae and Araceae/diagnostic features interrelationships of Papaveraceae and Amaranthaceae/Economic importance and characteristic features of Sapotaceae and Acanthaceae/ Economic importance and characteristic features of Malvaceae and Arecaceae

Q.7. Write short notes on any four of the following

- A. Functions of Herbarium/RBG, Kew/CBD/Holotype/Epitype
- B. Morphological species concept/general biological principle/hybrid breakdown/hybrid speciation
- C. Principle of Parsimony/Paraphyly and Polyphyly/Outline of Cronquist's classification/artificial classification/natural classification
- D. Asteraceae/Magnoliaceae/Arecaceae/Hydrotellaceae/Amborellaceae
- E. Nomen nudum/conserved names/Sapotaceae/Acanthaceae/Neotype
- F. Prezygotic reproductive isolation/Lectotype/Isotype/rejected names/Hydrotellaceae