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**24-BO-22**

**M.Sc. II SEMESTER [MAIN/ATKT] EXAMINATION  
JUNE - JULY 2024**

**BOTANY**

Paper - II

**[Morphology and Taxonomy of Angiosperms]**

*[Max. Marks : 75]*

*[Time : 3:00 Hrs.]*

*[Min. Marks : 26]*

**Note :** Candidate should write his/her Roll Number at the prescribed space on the question paper.  
Student should not write anything on question paper.  
Attempt five questions. Each question carries an internal choice.  
Each question carries **15 marks**.

**Q. 1** Describe the different types and evolution of Placentation. (15 Marks)

**OR**

Explain the followings -

(5 Marks each)

- i) Conduplicate carpel.
- ii) Laminar Stamens.
- iii) Appendicular theory regarding evolution of inferior ovary.

**Q. 2** Discuss the Karyomorphological studies that are used in solving taxonomical problem. (15 Marks)

**OR**

Explain the followings -

(5 Marks each)

- i) Binomial nomenclature.
- ii) Taxonomic species concept.
- iii) Exine Sculpture.

**Q. 3** Discuss herbarium and floras as taxonomic tools. (15 Marks)

**OR**

Give an outline classification of angiosperms proposed by Bentham and Hooker. How does Bentham and Hooker's plant classification differ from Takhtajan's system of plant classification ? (15 Marks)

**P.T.O.**

**Q. 4** Describe floral variations and Phylogeny of order Rosales. (15 Marks)

**OR**

Discuss the salient features of order - Ranales. Add a note on taxonomic position and primitive characters of Ranales. (10+5 Marks)

**Q. 5** Describe the range of floral structures in Orchidaceae. Draw floral diagram of a typical member of family : Orchidaceae. (10+5 Marks)

**OR**

Explain the followings - (5 Marks each)

- i) Advanced characters of Asterales.
- ii) Economic importance of Gramineae.
- iii) Distinguishing features and pollination mechanism in Lamiaceae.

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