

**2024**

**M.Sc. 2nd Semester Examination**

**BOTANY**

**PAPER : BOT-201**

**(Angiosperms Taxonomy & Biosystematics)**

*Full Marks : 40*

*Time : 2 hours*

*The figures in the right-hand margin indicate marks.*

*Candidates are required to give their answers  
in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

Answer from **all** the Groups.

**GROUP—A**

Answer *any* **four** questions from the following :

2×4=8

1. Define apomorphy with example.
2. Define hotspots.
3. What are the forms of WRI and CITES?
4. Define monograph with example.

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( Turn Over )

( 2 )

5. What are Basal Angiosperms? Give example.
6. Who discovered *Archaeofructus*?

**GROUP—B**

Write the differences between the following pairs  
(any **four**) : 4×4=16

7. Flora and Vegetation
8. Phenetics and Cladistics
9. Botanical Garden and Park
10. Taxonomy and Biosystematics
11. Threatened plants and Rare plants
12. Monophyly and Paraphyly

**GROUP—C**

Answer any **two** questions from the following :  
8×2=16

13. Who originally introduced the concept of 'Biodiversity'? Additionally, from a mathematical perspective, how do we classify and quantify various types of Biodiversity? Elaborate on these classifications mentioning their significance and emphasizing the importance of biodiversity.  
1+2+3+2=8

( 3 )

14. Explain artificial, natural and phylogenetic systems of classifications, mentioning the names of their proponents. What sets integrated phylogenetic classification apart from true phylogenetic classification? Provide an overview of the APG system of classification (APG-IV), mentioning its advantages and drawbacks.  
3+2+3=8
15. Define Herbarium. Who was the first person to discover the Herbarium and in which year? What are the objectives of an Herbarium? What are the distinctions between a traditional and a virtual Herbarium, providing examples of each?  
1+2+2+3=8
16. Circumscribe the subclass Asteridae and Orchidae. Explain why these two subclasses are considered highly evolved compared to all other subclasses of Magnoliidae and Liliidae with suitable examples.  
2+2+2+2=8

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