

Exam. Code : 210004

Subject Code : 4234

M.Sc. (Botany) 4th Semester

DIVERSITY AND BIOLOGY OF ANGIOSPERMS

Paper : BOTC-626

Time Allowed—3 Hours] [Maximum Marks—50

Note :— Attempt all the parts of Question No. 1 from Section A, **seven** questions from Section B and **three** questions from Section C. Draw neatly labelled diagrams wherever required. Marks for each question are indicated in the paper.

SECTION—A

1. Write about 4 lines on each of the following :

- (i) Taxonomy.
- (ii) Demerits of Engler and Prantl's system of classification of angiosperms.
- (iii) Latest code of nomenclature of angiosperms.
- (iv) Centrospermae.
- (v) Species complex.
- (vi) Cytotaxonomy.
- (vii) ISH.
- (viii) Hot Spots. 1×8=8

SECTION—B

Note :— Attempt any **seven** of the following questions.

2. What are cladistics ? What is their importance in taxonomy ?
3. Explain the system of classification proposed by Takhtajan.
4. What is Latin diagnosis ? What is its importance ?
5. Write a note on proangiosperms.
6. Explain the role of palynology in taxonomy.
7. What is agamy ? What is its importance in evolution ?
8. What is serology ? How is this study applied in taxonomy ?
9. Enlist the phytogeographic regions of India.
10. What is herbarium ? How are herbaria important ?
11. Describe briefly the interrelationships of monocots and dicots. 3×7=21

SECTION—C

Note :— Attempt any **three** of the following questions.

12. Write notes on :

(i) Classification proposed by APG

(ii) Phenetic classification systems.

$3\frac{1}{2}+3\frac{1}{2}$

13. Describe the phylogeny of Ranales and Amentiferae and their treatment in modern classification systems.

7

14. Write notes on the following :

(i) Embryology in aid to taxonomy

(ii) Role of biosystematics analysis in taxonomy.

$3\frac{1}{2}+3\frac{1}{2}$

15. What is GIS ? How is GIS utilized in aid of plant taxonomy ? Explain the various steps and technologies used in details.

7

16. Discuss the following :

(i) Importance of Herbaria

(ii) Alpha taxonomy vs modern taxonomy

(iii) Hottest hot spots.

2+3+2