

Exam. Code : 210003

Subject Code : 5401

M.Sc. Botany 3rd Semester

PLANT MORPHOGENESIS

Paper—BOT-C-617

Time Allowed—Three Hours] [Maximum Marks—50

SECTION—A

Note :— Attempt ALL the parts.

1. (i) How polarity is expressed in isolated cells ?
- (ii) Define genetic correlations.
- (iii) What is bilateral symmetry ?
- (iv) Define physiological differentiation.
- (v) What do you mean by stock ?
- (vi) What are amorphous structures ?
- (vii) Name some chemical morphogenetic factors in plants.
- (viii) Define reproductive regeneration. 1×8=8

SECTION—B

Note :— Attempt any SEVEN questions.

2. What do you know about physiological correlations ?
3. Explain expression of polarity in coenocytes.
4. Explain the development of abnormal organs.

5. Describe the dorsiventral symmetry by giving suitable examples.
6. Discuss the role of physical factors in plant growth.
7. Describe regeneration in lower plants.
8. Explain differentiation without growth.
9. Write about the stock and scion interrelationships in plants.
10. Differentiate between external and internal differentiation.
11. Describe somatic mutations. 3×7=21

SECTION—C

Note :— Attempt any **THREE** questions.

12. Discuss the role of genetic and chemical morphogenetic factors in plants growth.
13. Describe developmental patterns of polarity.
14. Describe differentiation in relation to environment.
15. Discuss the production of new types of organized structures.
16. Describe the following :
 - (a) Restoration
 - (b) Chimeras. 7×3=21