

Class – M.Sc-II (Botany) Sem.-IV

Subject – BOTC-625

Paper – Plant Morphogenesis

Time Allowed : 3 Hours

Maximum Marks : 50

SECTION-A**Note:- Attempt all the parts. Each part carries 1 mark.**

1. (a) Derive symmetry.
- (b) What is a correlation. Give example of stimulatory correlation.
- (c) What are the Morphogenetic factors?
- (d) Write in brief about chimeras.
- (e) Discuss in brief the polarity in coenocytes.
- (f) Define tumour inducing principle in plants.
- (g) What is meant by tissue mixtures?
- (h) What is meant by abnormal growth in plants?

(1 × 8 = 8)**SECTION-B****Note : Attempt any 7 questions. Each question carries 3 marks.**

2. Describe the phenomenon of regeneration in lower plants.
3. Differentiate between physiological and genetic correlation in plants.
4. How polarity is expressed in the external structures of plants? Write your answer briefly explaining the polarity in isolated cells.
5. Write short note on amorphous structures.
6. Discuss the role of light in the morphogenetic

7. What are the advantages of tissue mixing methods in plants? Describe stock-scion interrelation.
8. Define Regeneration. Discuss reproductive regeneration in plants.
9. Write short notes on
 - (a) Inorganic symmetry in plants
 - (b) Compression
10. Briefly explain Somatic Mutations.
11. How does water temperature affect the plant growth.
(7 × 3 = 21)

SECTION-C

Note : Attempt any three questions. Each question carries 7 marks.

12. Discuss the following :
 - (a) Regeneration in higher plants
 - (b) Gravity
13. How abnormal growth can produce new types of organized structures? Explain with the help of a suitable example.
14. Write short notes on
 - (a) Reconstitution
 - (b) Organic symmetry in plants
15. Describe in detail the physical factors affecting the plant growth during morphogenesis.
16. What is meant by plant growth? Define the term differentiation and discuss this phenomenon with particular reference to external differentiation.
(3 × 7 = 21)
