

CS/2110

5243/NM

PAPER – X

PLANT GROWTH, DEVELOPMENT AND BIOTECHNOLOGY

~~BIOTECHNOLOGY~~

Semester - V

Time Allowed: 3 Hours

Max. Marks: 40

Section – A

Do any TWO

1. What do you mean by kinetics of growth? Explain physiological events occur during various phases of growth.
2. Discuss the physiological roles of ethylene and abscisic acid in plant growth and development.
3. How many type of phytochrome mediated responses are described in plants. Describe the characteristics of phytochrome mediated responses.
4. Elucidate the physiological classification of plants on the basis of light requirements for its growth and development.

2 x 6 = 12

Section – B

Do any TWO

1. Define electrophoresis and its types. Explain the method used for southern blotting.
2. What is gene transfer? Give detail procedure for gene transferring in plants.
3. Describe in detail basic concepts of plant tissue culture and its various types.
4. Explain the stages involved in micropropagation. What are the advantages of micropropagation in plant development and other areas of plant studies?

2 x 6 = 12

Section – C

All questions compulsory

1. Write note on application of anther culture in agriculture crops.
2. Describe abscission.
3. Discuss in brief about plant movements.
4. Define vernalization.
5. How cytokinin was discovered?
6. Define synthetic seed. How they are made?
7. What is molecular farming?
8. Differentiate between senescence and abscission.

8 x 2 = 16