



HM-003-014303

Seat No. _____

M. Sc. (Botany) (Sem. III) (CBCS) Examination

May / June - 2017

B - 315 : Plant Propagation Techniques

(Elective)

Faculty Code : 003

Subject Code : 014303

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- 1 Answer the following : (Any Seven) 14**
- (a) What is callus culture?
 - (b) What is photoperiod?
 - (c) What is Competency?
 - (d) Name any five plant propagation organizations.
 - (e) Write the merits of vegetative propagation.
 - (f) What is Grafting?
 - (g) What is Determinism?
 - (h) Write the main selection problem in clonal propagation.
 - (i) What is layering?
 - (j) What is totipotency?
- 2 Answer the following : (Any Two) 14**
- (a) Explain environmental factors that affect propagation of plants.
 - (b) What is micropropagation? Explain types of micropropagation techniques in brief.
 - (c) What is nursery? Explain the criteria used for its development.
- 3 Answer the following : (Compulsory Questions) 14**
- (a) What is Grafting? Explain its types and application
 - (b) What is cutting? Explain in detail.

OR

- 3** Answer the following : (Compulsory Questions) **14**
- (a) What is anther culture? Explain in detail.
 - (b) What is budding? Explain its types.
- 4** Answer the following : (Any **Two**) **14**
- (a) What is plant tissue culture?
 - (b) Give the criteria used for explants selection in plant tissue culture.
 - (c) What is protoplast culture? Explain in detail.
- 5** Answer the following : (Any **Two**) **14**
- (a) What are secondary metabolites? Explain its production in brief.
 - (b) What is organogenesis? Explain organ culture in detail.
 - (c) Explain preparation of artificial seeds in detail.
 - (d) What is somaclonal variation?
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