



DNN-003-025201

Seat No. _____

M. Phil (Sem. II) (CBCS) Examination

May / June – 2015

Plant Biotechnology and genetic engineering

Paper : PBGE - II

Faculty Code : 003

Subject Code : 025201

Time : Hours]

[Total Marks : 70

Instructions: All questions are compulsory and carry equal marks.

1 Answer any seven of the followings: **14**

- (a) List major plant propagation techniques
- (b) What is Wormiculture?
- (c) What is biofertilizer? Explain with example.
- (d) Define organogenesis.
- (e) Write basic principle of PCR.
- (f) What are the molecular markers used for plant?
- (g) What somaclonal variations?
- (h) What are the secondary metabolites?
- (i) Define patentability
- (j) What is Biodiversity Act?

2 Write notes on any two of the following: **14**

- (a) Layering
- (b) Grafting
- (c) Hydroponics

3 Answer the followings : **14**

- (a) Write applications of PTC in biotechnology.
- (b) Discuss selection criteria of media.

OR

3 Write short notes on: **14**

- (a) Callus
- (b) Protoplast culture

4 Answer of the followings: **14**

- (a) Advantages and disadvantages of GMO
- (b) Major steps of gene cloning

5 Write notes on **any two** of the followings: **14**

- (a) DNA isolation technique
- (b) Biocontrol
- (c) Protein fractionation
- (d) Farmer's Breeder's Rights
