



**NBU-003-1232003** Seat No. \_\_\_\_\_

**M. Phil. (CBCS) Examination**

**April / May - 2017**

**Botany - 203 : Advance in Plant Biology  
(New Course)**

**Faculty Code : 003**

**Subject Code : 1232003**

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

[ Total Marks : 70

**Instruction** : All questions are compulsory and carry equal marks.

- 1 Briefly explain the followings terms any seven : 14
- (a) Role of phytohormones in culture
  - (b) Budding techniques
  - (c) Organogenesis
  - (d) RFLP
  - (e) cDNA
  - (f) Epinasty
  - (g) Bioassay
  - (h) Criteria for explants collection
  - (i) Totipotency
  - (j) Primer and probe.
- 2 Answer any two of the following : 14
- (a) What are the factors influence on plant propagation ?
  - (b) What is Grafting ? How it is useful in horticulture.
  - (c) Write notes on Hydroponics.
- 3 Explain the following techniques : 14
- (a) What is Callus ? Write its applications.
  - (b) Criteria for media selection.

**OR**

- 3** Write applications of the following techniques in biological sciences : **14**
- (a) Secondary metabolites
  - (b) Protoplast culture
- 4** Write notes on the followings : **14**
- (a) Marker techniques in plants
  - (b) Gene transfer in plants.
- 5** Answer any two of the followings : **14**
- (a) PCR
  - (b) RAPD
  - (c) Vegetative propagation
  - (d) Physiological role of Auxins.
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