

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD,
SEMESTER END EXAMINATION

B. Sc. (Hons.) A.B.M.

Semester : II (New)	Term : II	Academic Year : 2018-19
Course No. : BOT 121	Title : Principles of Plant Biotechnology	
Credits : 2 (1+1)		
Day & Date : Saturday, 04.05.2019	Time : 09.00 to 11.00	Total Marks : 40

- Note :
1. Solve ANY EIGHT questions from SECTION "A".
 2. All questions from SECTION "B" are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.

SECTION "A"

- Q.1 Explain the composition of culture media.
- Q.2 Define micro propagation. Describe its stages.
- Q.3 Write a note on methods of protoplast fusion.
- Q.4 Enlist the factors affecting *in-vitro* culture.
- Q.5 Give the applications of Nano-biotechnology.
- Q.6 Enlist the type of blotting techniques, explain in detail any one.
- Q.7 Give the applications of somatic hybridization.
- Q.8 Explain the procedure of synthetic seed production.
- Q.9 Describe direct and indirect method of gene transfer with one example.
- Q.10 Write a note on the importance of plant genetic engineering in crop improvement.

SECTION "B"

- Q.11 Define the following terms.

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|-------------------------|------------------|
| 1) Totipotency | 2) Sterilization |
| 3) Plant tissue culture | 4) Explant |

- Q.12 Give contribution of the following scientists.

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|-----------------|------------------------|
| 1) G.Haberlandt | 2) Murashige and Skoog |
| 3) Takabe | 4) Skoog and Miller |

