

## SG-16906

(544) M.Sc. BOTANY (FOURTH SEMESTER)

Examination, June-2024

### Compulsory/Optional

#### Paper - I

#### Plant Cell Tissue and Organ Culture

**Time : Three Hours ]**

**/ Maximum Marks : 80**

**/ Minimum Marks : 29**

**Note :** Answer from both the Section as Directed. The Figures in the right-hand margin indicate marks.

#### Section-A

1. Answer the following very short answer type of questions  $1 \times 10 = 10$

(a) \_\_\_\_\_ is the example of the cell organless which has bounded which single unit membrane

**SG-16906**

**(Turn Over)**

(2)

(b) What is Antibody  
(c) What are plant tissues culture  
(d) What are cryopreservation  
(e) What is an artificial seed  
(f) What is the role of sucrose in plant tissueculture  
(g) The most suitable measure of central tendency  
(h) In a series, mean is 10 and median is 12 then mode will be \_\_\_\_\_  
(i) Which chemical is used in somatic hybridization  
(j) Who is the father of embryogenesis

2. Answer very precisely and brief in the following:  $2 \times 5 = 10$

(a) What are the types of Biotechnology  
(b) What is the main function of paroxysome in the cell

**SG-16906**

**(Continued)**

**(3)**

- (c) What is Totipotency
- (d) What are the advantage of tissue culture plant or micro propagation
- (e) Write a notes on median

**Section-B**

Answer the following detailed.  $12 \times 5 = 60$

3. Describe in detail aim and scope of Biotechnology.

**OR**

Write a short notes on.

- (a) Plasmadesmeta and its role
- (b) Scope and importance of tissues culture <https://www.abvvonline.com>

4. Write a detail notes on Somatic Hybridization and their importance of research.

**OR**

Write a short notes on.

- (a) Micro propagation
- (b) Callus culture

**(4)**

5. Give a detail notes on clonal propagation and their role of agriculture.

**OR**

Write short notes on.

- (a) Germplasm storage
- (b) Artificial seed

6. Give an account in importance uses measure of central tendencies in Biological research.

**OR**

Calculate arithmetic mean from the following data.

More than- 85 - 70 - 55 - 40 - 25 - 10

No. of Person- 01 04 30 74 94 100

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