

Exam Date & Time: 01-Oct-2020 (10:00 AM - 01:45 PM)



## PSG COLLEGE OF ARTS AND SCIENCE

Note: Writing 3hrs: Checking & Inserting Image : 30mins + Grace Time : 15mins

**BSc DEGREE EXAMINATION MAY 2020**  
(Sixth Semester)

**Branch - BOTANY**

**CORE ELECTIVE PAPER - II - PLANT TISSUE CULTURE [14BOU25A]**

**Marks: 75**

**Duration: 225 mins.**

### SECTION A

**Answer all the questions.**

- 1) Define Redifferentiation. (2)
- 2) What is cell suspension culture? (2)
- 3) Write two applications of auxins. (2)
- 4) Comment on Jasmonates. (2)
- 5) Define organogenesis. (2)
- 6) What is Cybrids? (2)
- 7) Write any two advantages of meristem culture. (2)
- 8) Define cryoprotectant. (2)
- 9) What is bioreactors? (2)
- 10) What are the types of metabolites? (2)

### SECTION B

**Answer all the questions.**

- 11) Discuss about embryo culture and its application. (5)
  - a) [OR] Explain about types of tissue culture media. (5)
  - b)
- 12) Explain the chemical nature and mode of action of Abscissicacids. (5)



- a)  
[OR] Write the commercial application of Gibberellins. (5)  
b)
- 13) Discuss about callus culture and its application. (5)
- a)  
[OR] Elaborate in detail about somatic hybridization. (5)  
b)
- 14) What are the different stages of micropropagation? (5)
- a)  
[OR] Briefly explain methods of cryopreservation techniques. (5)  
b)
- 15) Write detailed notes on cell immobilization techniques. (5)
- a)  
[OR] Discuss in detail about production of secondary metabolites of plants. (5)  
b)

### SECTION C

**Answer 3 out of 5 questions.**

- 16) Write an essay on sterilization techniques. (10)
- 17) Explain the bioassay, chemical nature, synthesis and mode of actions of cytokinins. (10)
- 18) How will you isolate protoplast from leaves with neat sketch? (10)
- 19) Give an account on production of synthetic seeds. (10)
- 20) Write note on impact of tissue culture industries in India. (10)

-----End-----