

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2023
(Second Semester)

Branch – ZOOLOGY

PLANT BIOLOGY - II

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

1. Which of the following breaks the monotony in a garden?
(i) Rhythm (ii) Background
(iii) Variety (iv) Repetition
2. What is the major objective of coppicing?
(i) Collection of firewood (ii) Emergence of new shoot
(iii) Production of green manure (iv) Collection of logs
3. Which of the following is used as an expectorant?
(i) *Jasminium grandiflorum* (ii) *Justicia adathoda*
(iii) *Asparagus racemosus* (iv) *Euphorbia hirta*
4. Which processes lead to formation of callus in plant tissue culture?
(i) No differentiation (ii) Dedifferentiation
(iii) Differentiation (iv) Redifferentiation
5. Name the organism that produces citric acid.
(i) *Lactobacillus lacti* (ii) *Aspergillus niger*
(iii) *Bacillus subtilis* (iv) *Phytophthora infestans*

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

6. a How do you make a water garden?
OR
b Comment on the various styles of bonsai.
7. a Narrate the importance of any four major forest products.
OR
b Bring out the concept and benefits of social forestry.
8. a Mention any four medicinal plants along with their active principles.
OR
b Comment on the significance of medicinal plants as repellants.
9. a List out the steps involved in artificial seed production.
OR
b Differentiate plant tissue culture and micropropagation.
10. a Illustrate the steps involved in ethanol production.
OR
b Outline the industrial production of citric acid.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 6 = 30)

11. a Discuss the propagation method, cultivation and marketing of rose.
OR
b Demonstrate the steps in lawn making and its maintenance.
12. a Explain the Indian forest types that you have studied.
OR
b Narrate the characteristics and uses of teakwood.
13. a Summarize the use of medicinal plants in pharmaceutical industry
OR
b Explicit the medicinal properties of *Justicia adathoda* and *vitex negundo*.
14. a Outline the general lab practices adopted for plant tissue culture.
OR
b Give a brief account on chemical composition of MS media.
15. a Demonstrate the industrial production of penicillin.
OR
b Enlist the steps involved in Spawn preparation and production of *Pleurotus*.

Z-Z-Z

END