

**PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)**

**BSc DEGREE EXAMINATION MAY 2019  
(Second Semester)**

Branch - **ZOOLOGY**

**PLANT BIOLOGY - II**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (10 x 1 = 10)

- 1 Part of plant used for tissue culture is called  

(i) Scion	(ii) Explant
(iii) Stock	(iv) Callus
- 2 Synthetic seed is produced by encapsulating somatic embryo with  

(i) Sodium chloride	(ii) Sodium alginate
(iii) Sodium acetate	(iv) Sodium nitrate
- 3 Which of the following is a basic principle in industrial microbiology?  

(i) Suitable growth conditions	(ii) Fermentation
(iii) Providing aseptic conditions	(iv) All of these
- 4 Which one of the following is commonly known as vegetable meat?  

(i) Mushroom	(ii) Fish
(iii) Meal Maker	(iv) Flesh of animals
- 5 The best temperature range for the growth of indoor plants is  

(i) 10 - 15°C	(ii) 20 - 25°C
(iii) 30 - 35°C	(iv) Above 40°C
- 6 The ideal cutting height of blue grass varieties is  

(i) 1/4 to 1 inch	(ii) 1 to 1 1/4 inches
(iii) 1 1/4 to 2 inches	(iv) Above 2 inches
- 7 Leading producer of Jasmine in India is  

(i) Tamil Nadu	(ii) West Bengal
(iii) Karnataka	(iv) Mumbai
- 8 Which one is the suitable soil for turmeric cultivation?  

(i) Red loamy soil	(ii) Sandy soil
(iii) Black soil	(iv) Clay soil
- 9 Dark reaction occurs in  

(i) Grana	(ii) Thylakoids
(iii) Stroma	(iv) All of these
- 10 What is the full form of 2-4-D?  

(i) 2-4 dichloro phenoxy acetic acid	(ii) 2-4 dichloro butyric acid
(iii) 2-4 dichloro naphthalic acetic acid	(iv) 2-4 dichloro ethylenic acid

**Cont...**

**SECTION - B (35 Marks)**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks (5 x 7 = 35)

- 11 a Elucidate the commercial applications of plant tissue culture.  
OR  
b How do you isolate protoplast from plant cells? Explain the techniques of protoplast fusion.
- 12 a Explain briefly about alcohol fermentation.  
OR  
b What are edible mushrooms? Explain the types with examples.
- 13 a Give a brief account on Rockery.  
OR  
b What is Bonsai? How do you develop a typical bonsai?
- 14 a Describe the cultivation of Jasmine and add a note on its uses.  
OR  
b Write about the important varieties of turmeric in Tamil Nadu and list out its uses.
- 15 a Describe briefly on the role of cytokinins.  
OR  
b Differentiate between photosynthesis and respiration.

**SECTION - C (30 Marks)**

Answer any **THREE** Questions

**ALL** Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Discuss the various techniques of sterilization.
- 17 Describe the method of industrial production of penicillin.
- 18 What is a lawn? Give a detailed account on Lawn making.
- 19 What are the advantages of off-season flowering? How do you address off-season flowering in *Chrysanthemum*?
- 20 What is phosphorylation? Give an account of cyclic and non-cyclic photophosphorylation.

Z-Z-Z

END