

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2022
(Second Semester)

Branch – BOTANY

VEGETATIVE PLANT BIOLOGY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

- 1 What is present at the root apex of the growing regions has
(i) Root cap (ii) Region of elongation
(iii) Region of Maturation (iv) Root hair
- 2 Indicate which type of plant Pneumatophores are usually present in
(i) Mangrove plants (ii) Xerophytes
(iii) Hydrophytes (iv) Epiphytes
- 3 The stem always grows towards
(i) soil (ii) water
(iii) Light (iv) Dark
- 4 Finding the approximate age of a tree is known by
(i) Measuring its height (ii) Measuring the leaf number
(iii) Counting the number of annual rings (iv) Counting the branch number
- 5 Mention where the Bulliform cells are found on
(i) Monocot leaves (ii) Monocot root
(iii) All dicot leaves (iv) Monocot stem

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a Outline the functions of adventitious roots.
OR
b Prepare a short note on Zone of elongation and zone of Maturation of roots.
- 7 a What are prop roots? Explain its significance?
OR
b Discuss briefly on Guttation and root pressure.
- 8 a Define Lenticels. Explain its role.
OR
b List out the parts of the stem.
- 9 a Brief out the capillary action of stem.
OR
b Summarize the economic applications of wood with suitable examples.
- 10 a Discuss in short on functioning of stomata.
OR
b What do you mean by Phyllotaxy. Explain.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a With a neat diagram compare the structure of monocot and dicot roots
OR
b Elucidate the various forms of modifications of roots
- 12 a Give an account on Root environment.
OR
b What do you mean by active and passive absorption? Explain.
- 13 a Write an essay on morphology of stem with its types
OR
b Narrate the anomalous features of Nyctanthus stem with suitable sketches.
- 14 a Differentiate pruning and healing. Explain how roots are induced from the stem cuttings.
OR
b Point out the Chemical properties of wood with reference to Dyes, Gums and Oils.
- 15 a Write an essay on simple leaves.
OR
b Discuss elaborately on the adaptation in leaves with reference to various stress.

Z-Z-Z

END