



বিদ্যাসাগর বিশ্ববিদ্যালয়
VIDYASAGAR UNIVERSITY

Question Paper

B.Sc. Honours Examinations 2022

(Under CBCS Pattern)

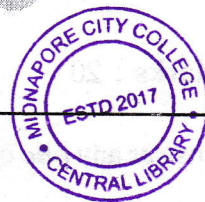
Semester - IV

Subject : BOTANY

Paper : GE 4-P

Full Marks : 20

Time : 3 Hours



*Candidates are required to give their answers in their own words as far as practicable.
The figures in the margin indicate full marks.*

Plant Anatomy and Embryology

Group-A

Answer any **one** of the following questions :

5×1=5

1. Write the identifying characters of meristematic tissues through permanent slides or photographs. 5
2. Write the identifying characters of the specimen through permanent slides. Identify the specimen. (Monocot or dicot Plant stem). 4+1
3. Write the identifying characters of the specimen through permanent slides. Identify the specimen. (Monocot or dicot plant leaf). 4+1

P.T.O.

Group-BAnswer any **one** of the following questions :

10×1=10

1. Calculate the percentage of germinated pollens in a given medium.
2. Write the adaptive features of supplied specimen.

Group-C

1. Laboratory Notebook 2
2. Viva voce 3

Paper - GE 4-P

Plant Physiology and Metabolism

Full Marks : 20

Time : 3 Hours

A. Answer any **one** question :

5×1=5

1. Compare the rate of respiration in germinating seeds and flower petals performing the experiment. 2+3
2. Calculate stomatal index and stomatal frequency of a supplied specimen. 5
3. Write down the requirements and procedure for separation of amino acids by paper chromatography and demonstrate the procedure. 5

B. Answer any **one** question :

10×1=10

1. Write the requirements to set up the experiment for studying the effect of bicarbonate concentration on O₂ evolution during photosynthesis. Perform the experiment with two different concentrations of bicarbonate to show the effect on O₂ evolution. 2+5+3
2. Give the requirements, and write the procedure to determine the osmotic potential of *Rhoeo* leaf cell sap by plasmolytic method. Calculate the osmotic potential if the incipient plasmolysis occurs at 0.25 M. 2+5+3
3. Laboratory note book and Viva voce. (for offline exam.) 2+3