



'समानो मन्त्रः समितिः समानी'

**UNIVERSITY OF NORTH BENGAL**

B.Sc. Honours 2nd Semester Examination, 2023

**CC3-TEA SCIENCE**

**TEA CULTURE, BOTANY, MICROBIOLOGY**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.*

**GROUP-A**

1. Answer any **five** from the following: 1×5 = 5
- (a) What is Plasmid?
  - (b) Name one nitrogen fixing bacteria.
  - (c) Name one C<sub>4</sub> plant.
  - (d) Name one enzyme involved in glycolysis.
  - (e) Write the scientific name of the tea plant.
  - (f) Give any two examples of short day plant.
  - (g) What is the first stable product of C<sub>3</sub> cycle?
  - (h) Name any two cell organelles that are involved in the process of photorespiration.

**GROUP-B**

2. Answer any **three** from the following: 5×3 = 15
- (a) Write a short note on the climatic condition for the tea cultivation. 5
  - (b) Write the difference between C<sub>3</sub> and C<sub>4</sub> plants. 5
  - (c) What is seed dormancy? Write the causes of seed dormancy. 1+4
  - (d) Write a brief note on the tea clones of different tea growing areas. 5
  - (e) What are the different growth patterns in unpruned and pruned tea? 5

**GROUP-C**

3. Answer any **two** from the following: 10×2 = 20
- (a) Write morphological characters of *Camellia sinensis* with sketches. 10
  - (b) What is transpiration? Write a note on Potassium ion transport theory of stomatal transpiration. Briefly discuss the factors effecting transpiration. 1+5+4
  - (c) What is photophosphorylation? Discuss non-cyclic photophosphorylation. 1+9
  - (d) Explain quantitative and qualitative traits of tea plants. 10

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