



**WEST BENGAL STATE UNIVERSITY**  
B.Sc. Honours 3rd Semester Examination, 2021-22

**BOTACOR05T-BOTANY (CC5)**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.  
Candidates should answer in their own words as far as practicable  
All symbols are of usual significance.*

1. Answer **all** the following questions: 1×6 = 6
- (a) Name one plant with Monadelphous Androecium.  
(b) Draw Quincuncial Aestivation.  
(c) Define Quiescent centre.  
(d) What is Rhytidome?  
(e) Differentiate between ring porous and diffuse porous wood.  
(f) Define Lodicules. Where it is found?
2. Answer the following questions (any **eight**) taking at least **one** question from each Group: 3×8 = 24

**GROUP-A**

- (a) Mention the type of Inflorescence present in the following families—  $\frac{1}{2} \times 6 = 3$
- (i) Asteraceae                      (ii) Lamiaceae                      (iii) Apiaceae  
(iv) Euphorbiaceae                      (v) Poaceae                      (vi) Araceae
- (b) What is an achlamydeous and dichlamydeous flowers? Give example. 2+1
- (c) Discuss briefly different types of adhesion of stamens with diagram and example. 3

**GROUP-B**

- (d) Draw and describe open collateral and bicollateral vascular bundle. 3
- (e) Discuss briefly the anatomical adaptations of hydrophytes. 3
- (f) Discuss briefly the cytodifferentiation of tracheary elements. 3
- (g) Mention the scope of plant anatomy in Pharmacognosy. 3

- (h) What is Tunica Corpus theory of shoot apex? 3  
(i) Name the types of stomata with examples. 3  
(j) State the anatomical differences between a dicot leaf and a monocot leaf. 3  
(k) Write a short note on secondary growth in Stem. 3  
(l) What is procambium and cambium?  $1\frac{1}{2} \times 2 = 3$

3. Answer any *two* questions from the following (*one* from each Group):  $5 \times 2 = 10$

**GROUP-A**

- (a) Draw and label the different types of placentation with one example for each type. Mention the advanced and primitive type of placentations. 4+1  
(b) Write a note on the Schizocarpic fruits with diagrams and examples. 5

**GROUP-B**

- (c) State few differences between sap wood and heart wood. How would you distinguish between monocot and dicot stem anatomically?  $2\frac{1}{2} + 2\frac{1}{2} = 5$   
(d) (i) Distinguish between Sclereid and Fibre. 2  
(ii) Differentiate between ray and axial parenchyma. State their functions. 2+1

**N.B. :** *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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