

**BANKIM SARDAR COLLEGE**

**Part – II (1+1+1) Examination 2020**

**B.Sc. (Honours)**

**Subject: BOTANY**

**Paper: III+IV**

**Group: (1+2)**

**Time: 2 Hours**

**Full Marks: 25+25 = 50**

**(Answer each Group in separate Answer-Sheets)**

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**Group: 1**

**Paper -III (F.M-25)**

**Paper: IIIA (F.M-12.5)**

**(Answer in separate answer-sheets)**

**Answer any TWO Questions from Question 1 to 4. Question 5 is compulsory.**

1. (a) Discuss the salient features of rhyniophyta. 3+2=5  
(b) What is heterospory? Give example.
2. (a) Discuss the characteristics of gnetophyta. 3+2=5  
(b) Discuss the economic importance of gymnosperm with reference to resin.
3. (a) Difference between habitat and niche 3+2=5  
(b) What is metallophytes? Give example.
4. (a) Discuss the dominant flora of Sunderban. 3+2=5  
(b) What is plasmodesmata?
5. **Compulsory Question** 2.5 × 1 = 2.5  
(I) Write a short note on phytoremediation.  
**OR**  
(II) Write the name of biodiversity hotspots of India.

**Paper: IIIB (F.M-12.5)**  
**(Answer in separate answer-sheets)**

Answer any TWO Questions from Question 6 to 9. Question 10 is compulsory.

6. (a) Distinguish between Homoeophyllum and Heterophyllum *Selaginella*. 3+2=5  
(b) Discuss the utilization of pteridophytes as medicine.
7. (a) Discuss hydrosere. 3+2=5  
(b) Write a short note on microclimate.
8. (a) Discuss different stomatal types (Metcalf and Chalk). 3+2=5  
(b) What is leaf trace and leaf gap?
9. (a) Discuss the anomalous secondary growth of *Dracaena* stem. 3+2=5  
(b) Define plastochrone
10. Compulsory Question 2.5 × 1 = 2.5  
(I) Adaptive anatomical features of Hydrophytes.  
OR  
(II) Adaptive anatomical features of Xerophytes .

**Group: 2**  
**Paper-IV (F.M-25)**

**Paper: IVA (F.M-12.5)**  
**(Answer in separate answer-sheets)**

Answer any TWO Questions from Question 11 to 14. Question 15 is compulsory.

11. (a) Discuss any three inflorescence type with example. 3+2=5  
(b) Define basal placentation with example.
12. (a) Discuss any three fruit type with example. 3+2=5  
(b) What is aestivation?
13. (a) What is alpha and omega taxonomy? 3+2=5  
(b) Discuss the merits of Bentham and Hooker system of classification.

14. (a) Discuss the principle of ICBN . 3+2=5  
(b) What is author citation?

15. Compulsory Question 2.5 × 1 = 2.5

(I) Discuss the role of botanical garden.

OR

(II) Discuss the diagnostic characteristics of malvaceae

**Paper: IVB (F.M-12.5)**

**(Answer in separate answer-sheets)**

Answer any TWO Questions from Question 16 to 19. Question 20 is compulsory.

16. (a) Discuss the diagnostic characteristics of lamiaceae. 3+2=5  
(b) Discuss the diagnostic characteristics of compositae.

17. (a) Write a short note on dichotomous keys. 3+2=5  
(b) What is numerical taxonomy?

18. (a) Discuss the diagnostic characteristics of liliaceae. 3+2=5  
(b) Discuss the diagnostic characteristics of palmae

19. (a) Discuss the author citation. 3+2=5  
(b) What is imbricate aestivation? Give example.

20. Compulsory Question 2.5 × 1 = 2.5

(I) What is epiphyllous stamen? Give example.

OR

(II) What is gynandrous stamen? Give example.