

BANKIM SARDAR COLLEGE

Part – I (1+1+1) Examination 2020

B.Sc. (Honours)

Subject: BOTANY

Paper: I+II

Group: (1+2)

Time: 2 Hours

Full Marks: 25+25 = 50

(Answer each group in separate Answer-Sheets)

Group: 1

Paper -I (F.M-25)

Paper: IA (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 any three thallus organization in algae. 3+2=5
(b) Discuss isomorphic life cycle in algae

2. (a) Difference between Gram +ve and Gram –ve bacteria. 3+2=5
(b) Difference between generalized and specialized transduction.

3. (a) Write a short note on heterothallism. 3+2=5
(b) What is aflatoxin? Give example

4. (a) Discuss Koch's Postulates. 3+2=5
(b) Name the causal organism responsible for late blight of potato. Give two control measures.

5. Compulsory Question 2.5 × 1 = 2.5
(I) Write a short note on Agar-agar.
OR
(II) Draw a label diagram of lytic cycle (T4 phage)

Paper: IB (F.M-12.5)

(Answer in separate Answer-Sheets)

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

6. (a) Discuss the salient features of Chlorophyceae. 3+2=5
(b) What is heterocyst? Give example.
7. (a) Discuss one step growth curve. 3+2=5
(b) What is viroids and Prions?
8. (a) Draw a life cycle of *Rhizopus*. 3+2=5
(b) Define mushroom with example.
9. (a) Discuss the control measures of stem rot of jute. 3+2=5
(b) Name the causal organism of black stem rust of wheat and bacterial blight of rice.
10. Compulsory Question 2.5 × 1 = 2.5
(I) What is fruticose lichen? Give example.
OR
(II) What is foliose lichen? Give example.

Group: 2

Paper-II (F.M-25)

Paper: IIA (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 the role of bryophytes in plant succession. 3+2=5
(b) Discuss the Homologous theory of origin of alternation of generation in bryophytes.
12. (a) What is micro- and mega fossil? 3+2=5
(b) What is sporopollenin?
13. (a) Discuss the development of endosperm (3 type). 3+2=5
(b) Difference between apospory and apogamy.

14. (a) Difference between microsporogenesis and mega gametogenesis? 3+2=5
(b) What is double fertilization?

15. Compulsory Question 2.5 × 1 = 2.5

(I) Discuss the importance of fossil study

OR

(II) Discuss the index fossil.

Paper: IIB (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 amphibian nature of bryophytes. 3+2=5
(b) Discuss the role of bryophytes in monitoring pollution.

17. (a) Discuss pollen-ovule ratio and its significance. 3+2=5
(b) What is tetrasporic megagametogenesis.

18. (a) Define geological time scale and who discovered? 3+2=5
(b) Discuss the spore dispersal mechanism in *Marchantia*.

19. (a) Discuss the conditions favouring fossilization. 3+2=5
(b) What is palaeopalynology?

20. Compulsory Question 2.5 × 1 = 2.5

(I) Write a short note on gemma cup.

OR

(II) Write a short note on L.S. of *Funaria* capsule.