

C 21514

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Name.....

Reg. No.....

## FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION, APRIL 2022

Botany

BOT 4B 04—METHODOLOGY AND PERSPECTIVES IN PLANT SCIENCE

(2019 Admission onwards)

Maximum : 60 Marks

Time : Two Hours

## Section A

*Answer at least eight questions.**Each question carries 3 marks.**All questions can be attended.**Overall Ceiling 24.*

1. Define hypothesis.
2. Expand NCBI. What is its significance ?
3. What is random error ?
4. Distinguish between molarity and normality.
5. What is CRAF ? What is its use ?
6. What is a fixative ? Give two examples.
7. Define maceration.
8. What is Chi square test ? What is its application ?
9. Differentiate between direct observation and indirect observation with examples.
10. What is pH? How do you distinguish acids and bases based on pH ?
11. What is SEM ? Mention two applications.
12. What is micrometry ?

(8 × 3 = 24 marks)

Turn over

**Section B**

*Answer at least five questions.*

*Each question carries 5 marks.*

*All questions can be attended.*

*Overall Ceiling 25.*

13. Describe the various styles of citation.
14. What is centrifugation? Mention the types of centrifuges and their applications.
15. What are the different ways of representation of data?
16. What is dehydration? Explain the process with examples of dehydrating agents.
17. Explain the principle and uses of spectrophotometry.
18. Give an account on the different types of observations.
19. Discuss staining of specimens with reference to double staining and vital staining.

(5 × 5 = 25 marks)

**Section C**

*Answer any one question.*

*The question carries 11 marks.*

20. Elaborate the steps involved in the scientific method.
21. What is chromatography? Explain the principle, types and applications of chromatography techniques.

(1 × 11 = 11 marks)