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(Pages : 2)

Name.....

Reg. No.....

**FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2024**

Botany

BOT4B04—METHODOLOGY AND PERSPECTIVES IN PLANT SCIENCE

(2019 Admission onwards)

Time : Two Hours

Maximum : 60 Marks

Section A*Answer all questions.**Each question carries 2 marks.*

1. What are buffers ?
2. What is null hypothesis ?
3. Mention the advantages of phase contrast microscope.
4. Define maceration.
5. List the uses of Colorimeter in biological studies.
6. Comment on NCBI.
7. Distinguish between controlled and uncontrolled observations.
8. What is variance ?
9. Define molarity.
10. Comment on vital staining.
11. What is meant by RF value ?
12. What is impact factor ?

(Ceiling 20 marks)

Section B*Answer all questions.**Each question carries 5 marks.*

13. Explain statistical tools and their significance in data interpretation.
14. Give an account of common fixatives and their preparation.
15. Give an account of the steps involved in scientific method.

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16. Explain the principle and working of spectrophotometer with diagrams.
17. Explain adsorption chromatography with diagrams.
18. Discuss the measures of central tendency.
19. Explain the working and uses of Electron microscopy.

(Ceiling 30 marks)

Section C

Answer any **one** questions.

Each question carries 10 marks.

20. What is centrifugation? Explain the working and applications of different types of centrifuge.
21. Give an account of measures of dispersion. Add a note on regression analysis.

(1 × 10 = 10 marks)