

TB221040

Reg. No : .....

Name : .....

**B. Sc. DEGREE (C.B.C.S.) EXAMINATION, NOVEMBER 2022**

**(2022 Admissions (regular) 2021 Admissions (Improvement / Supplementary), 2020, 2019, 2018, Admissions  
Supplementary)**

**SEMESTER I - CORE COURSE (BOTANY)**

**BO1B01B18 - METHODOLOGY OF SCIENCE AND AN INTRODUCTION TO BOTANY**

**Time : 3 Hours**

**Maximum Marks : 60**

**Part A**

**I. Answer any Ten questions. Each question carries 1 mark**

**(10x1=10)**

1. State null hypothesis.
2. What is an independent variable?
3. How is accuracy of a result explained?
4. State abiogenesis.
5. Define species.
6. What is phyletic speciation?
7. Recall the uniqueness of the endosperm of angiosperms.
8. Define holocarpic fungi.
9. Write the expansion of BGA.
10. Give the meaning of "killing" in microtechnique.
11. Deduce the term normal solution.
12. Explain wet preservation.

**Part B**

**II. Answer any Six questions. Each question carries 5 marks**

**(6x5=30)**

13. Indicate the features of a valid hypothesis.
14. Discuss the importance of documentation in experiments.
15. Present a note on experimental error.
16. Explain briefly how paleontological evidences support organic evolution.
17. Explain vestigial organs and their significance.
18. Write an account on pigmentation in algae.
19. Write notes on the three domains, six kingdom classification by Carl Woese, 1990.
20. Give the formula and preparation of Carnoy's fluid.
21. Record the measures to be followed during the preparation of the killing and fixing agents.

**Part C**

**III. Answer any Two questions. Each question carries 10 marks**

**(2x10=20)**

22. Define experimental design. Explain the procedure of designing an experiment.
23. Explain Lamarckism and Neo-Lamarckism.
24. Explain the general features of Gymnosperms.
25. Prepare an account on the optical and mechanical components of a light compound microscope.