

QP CODE: 25016906	Reg No	:	
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## B.Sc DEGREE (CBCS) SPECIAL REAPPEARANCE EXAMINATIONS, FEBRUARY 2025

## Fifth Semester

# CORE COURSE - BO5CRT06 - RESEARCH METHODOLOGY, BIOPHYSICS AND BIOSTATISTICS

Common to B.Sc Botany Model I, B.Sc Botany Model II Environmental Monitoring And Management, B.Sc Botany Model II Food Microbiology, B.Sc Botany Model II Horticulture and Nursery Management & B.Sc Botany Model II Plant Biotechnology

2022 Admission Only

57A01E47

Time: 3 Hours Max. Marks: 60

#### Part A

Answer any **ten** questions.

Each question carries **1** mark.

- 1. Name any two National Journals in Lifesciences.
- 2. Define INFLIBNET.
- 3. Name an example of operating system studied by you.
- 4. What does Ctrl+C do?
- 5. What is pie chart?
- 6. What is Scitable?
- 7. Define complex system biophysics.
- 8. Name any two embedding materials used in electron microscope.
- 9. Define Beer's Law.
- 10. Give any one example of tracking dye used in PAGE.
- 11. What is biometry?



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 $(10 \times 1 = 10)$ 

#### Part B

## Answer any six questions.

### Each question carries 5 marks.

- 13. What is applied research?
- 14. What do you meant by research? Explain its significance in modern times.
- 15. How to prepare a pie diagram using MS-Excel?
- 16. Write a short note on search engines.
- 17. Mention the working of light microscope.
- 18. Briefly describe the different methods of centrifugation.
- 19. Explain the principle of chromatography.
- 20. Comment on random sampling. Mention the methods of random sampling.
- 21. Define mean. Explain with example.

 $(6 \times 5 = 30)$ 

### Part C

### Answer any two questions.

## Each question carries 10 marks.

- 22. Explain. What points will you keep in mind while preparing a research report?
- 23. Explain the steps involved in the preparation of MS-PowerPoint with tables, charts pictures and animation.
- 24. Mention the principle, working and application of pH meter.
- 25. Comment on the "importance of testing hypothesis" and explain the methods of testing hypotheses.

 $(2 \times 10 = 20)$ 

