

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2025
(Regular/Improvement/Supplementary)

ZOOLOGY

FZOL1C02- BIOPHYSICS AND BIOSTATISTICS

Time: 3 Hours

Maximum Weightage: 30

Part A: Answer any *four* questions. Each carries *two* weightage.

1. Write notes on MRI.
2. Briefly explain X- ray crystallography.
3. State Vant Hoff's laws.
4. What is G force?
5. Distinguish between census and sampling methods.
6. What is disc electrophoresis?
7. Briefly explain Mann Whitney test.

(4 × 2 = 8 weightage)

Part B: Answer any *four* questions. Each carries *three* weightage.

8. Explain regression analysis.
9. Briefly explain different fixation and staining techniques for EM.
10. What is ANOVA? Write an account on different types of ANOVA.
11. What is nanotechnology? Explain its applications in health care.
12. What is frequency curve? Explain different types of frequency curves.
13. Give a brief account on principle and applications of gas chromatography.
14. Write notes on Binomial probability distribution.

(4 × 3 = 12 weightage)

Part C: Answer any *two* questions. Each carries *five* weightage

15. Explain in detail about the principle, construction and working of GM counters.
16. Explain the physical aspects of sound transmission in the ear
17. Write an essay on the properties and biological applications of colloids.
18. a) Briefly describe different measures of central tendency.
b) Calculate arithmetic mean for the following data.

Class:	10-14	15-19	20-24	25-29	30-34	35-39
Frequency:	4	15	27	32	14	7

(2 × 5 = 10 weightage)