QP CODE: 23145369

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Reg No : .....

Name : .....

M Sc DEGREE (CSS) EXAMINATION, DECEMBER 2023

First Semester

M Sc ZOOLOGY

CORE - ZL010104 - BIOSTATISTICS AND RESEARCH METHODOLOGY

2019 ADMISSION ONWARDS

BEEF2805

Time: 3 Hours Weightage: 3

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. Calculate Arithmetic mean from the following data:

   X: 5 10 15 20 25 30 35
   f: 1 4 9 12 15 8 3

2. State addition theorem on probablility.
3. What is the significance of ANOVA?
4. How is mathematical modelling useful for drug discovery?
5. Define analytical research giving an example.
6. Distinguish between prediction and explanation in research formulation.
7. What are the features of a good research design?
8. What are the different citation styles?
9. What are the advantages of e-Thesis?
10. What is plagiarism?

(8×1=8 weightag

Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. Explain the steps in statistical investigation.
12. The rank given by two judges in a dance competition are as follows:

Participants	A	B	C	D	E	F	G
Judge 1	2	1	4	3	5	7	6
Judge 2	1	3	2	4	5	6	7

    Calculate Spearman's rank correlation coefficient.

13. What are the advantages of systematic sampling?
14. Explain length weight relationship and VBG model.
15. Elucidate the steps in formulating the research problem.
16. Distnguish between descriptive and diagnostic research designs.

17. Explain the structure of a thesis

18. What are the steps to be considered while preparing research papers for journals ?

(6×2=12 weightag

Part C (Essay Type Questions)

*Answer any **two** questions*

*Weight **5** each*

19. Explain measures of dispersion.

20. Given below is data about investment and sales in commercial ornamnetal fish culture (both in Rs. Lakhs).

1.

	Investment (X)	Sales (Y)
Mean	10	90
Standard deviation	3	12

Correlation coefficient = 0.8

a) Find the two regression lines.

b) Find the likely sales when investment is Rs 15 lakhs.

c) What should be the investment if the agency wants to attain sales target of Rs. 120 lakhs?

21. Explain in detail the basic concepts of research. Explain the meaning, objectives and motivation to research.

22. How to prepare a project proposal?

(2×5=10 weightag