

Q1A	Write a note on the type of data.	7 Marks
Q1B	What is variable in research?	7 Marks
OR		
Q1A	Write a detailed note on secondary data collection method in detail.	7 Marks
Q1B	Write a note on role of biostatistics in MLT.	7 Marks
OR		
Q2A	State differences between Parametric vs. Non-parametric Tests.	7 Marks
Q2B	What is data visualisation? Why is it important? Give a note on different data visualisation methods.	7 Marks
OR		
Q2A	State differences between Correlation vs. Regression Analysis.	7 Marks
Q2B	Write a note on hypothesis testing and types of errors.	7 Marks
OR		
Q3A	Describe the organization of the "Results and Discussion" section in a research paper. Explain strategies to present and interpret findings clearly and effectively.	7 Marks
Q3B	Describe the purpose and key elements of a literature review. How does it help in framing research questions and establishing the study's significance?	7 Marks
OR		
Q3A	Discuss the essential components of a good research abstract. Explain how clarity, conciseness, and relevance contribute to an effective summary of a research paper.	7 Marks
Q3B	Enumerate the various referencing styles commonly used in scientific writing. Mention popular reference management software tools and elaborate on the features of any three.	7 Marks
OR		
Q4A	Discuss the principles of research ethics and responsible conduct, explaining their importance in maintaining public trust and credibility in scientific research.	7 Marks
Q4B	Discuss the responsibilities of researchers in maintaining responsible conduct within the laboratory, including mentorship, collaboration, and adherence to institutional and regulatory guidelines.	7 Marks
OR		
Q4A	Describe the key ethical practices that must be followed in laboratory research to ensure safety, honesty, and integrity in experimental work.	7 Marks
Q4B	Define data manipulation in the context of scientific research and	7 Marks

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	discuss how it can be prevented through transparent record-keeping, peer review, and institutional oversight.	
Q5	Answer the following questions (Any Seven)	14 Marks
I	Define Biostatistics.	2 Marks
II	What is the difference between a population and a sample in the context of a research study.	2 Marks
III	What are advantages and disadvantages of primary data collection?	2 Marks
IV	What is false positive error?	2 Marks
V	What is significance level (α)? And how is it decided?	2 Marks
VI	What is box-whisker plot? What parameters are used in this plot?	2 Marks
VII	What is plagiarism, and how can it be avoided in research writing?	2 Marks
VII	Define a hypothesis. Why is it important in a research study?	2 Marks
IX	What is the main purpose of writing keywords in a research paper?	2 Marks
X	Why is maintaining data integrity important in scientific studies?	2 Marks
XI	What does data manipulation mean in research?	2 Marks
XII	List two ethical responsibilities of a researcher in the laboratory.	2 Marks

BEST OF LUCK