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1311E1119

Candidate's Seat No : _____

M.Sc. Sem.-3 Examination**501****Toxicology****Time : 2-30 Hours]****November-2025****[Max. Marks : 70**

Q1A	Write a note on "ANOVA" tests and describe one-way ANOVA in detail.	7 Marks
Q1B	Explain hypothesis testing and types of errors.	7 Marks
OR		
Q1A	Write a note on differences between Correlation vs. Regression Analysis.	7 Marks
Q1B	A researcher is comparing a control group and a treatment group, each with 50 participants. The data from both groups are normally distributed. what is the best statistical test to see if there is a significant difference between them? Explain why you chose this test and how it works.	7 Marks
Q2A	Name different parts of research papers. What is keyword? Explain in detail about selection and utilization of keywords.	7 Marks
Q2B	What is the structure of "result and discussion" section of research paper? Explain how to write it in better way.	7 Marks
OR		
Q2A	List out different reference styles. Name reference management tools and explain any three.	7 Marks
Q2B	What is the importance of presentations? Explain its types and key skills.	7 Marks
Q3A	Explain Trademarks in detail along with its types, exclusive rights, and limitations.	7 Marks
Q3B	Explain the step-by-step process of filing a patent, including the roles of provisional and complete specifications, and what are the criteria for naming inventors in a patent application?	7 Marks
OR		
Q3A	Define the term "Intellectual Property Rights", and provide a comprehensive overview on IPRs and discuss the different areas covered by IPRs?	7 Marks
Q3B	Explain Copy Rights in detail along with appropriate examples, its exclusive rights and limitations.	7 Marks
Q4A	Define animal research and explain its significance in biomedical science. Discuss the moral and ethical concerns associated with it.	7 Marks

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Q4B	Discuss the functions and ethical guidelines provided by the Committee on Animal Research and Ethics (CARE).	7 Marks
OR		
Q4A	Explain the different Biosafety Levels (BSL-1 to BSL-4), their containment measures, and examples of organisms handled at each level.	7 Marks
Q4B	Explain the classification of clinical studies into interventional, observational, and adaptive trials with examples.	7 Marks
Q5 Answer the following questions (Any Seven)		
I	Briefly define skewness and kurtosis.	2 Marks
II	State any two differences between Parametric vs. Non-parametric Tests.	2 Marks
III	Give any two examples of different data visualisation methods.	2 Marks
IV	Here is the citation of a research article in APA format "Motiie, P. (2020, December). Expression of IDI in Dhatura plant. Biochime." What is the name of the article and name of the journal from this?	2 Marks
V	What is "errata"? What is the importance of it?	2 Marks
VI	What is DOI number of a paper? Which reference style is most used in biological research?	2 Marks
VII	Who is eligible to receive a plant patent, and what criteria must be met for the patent to be granted?	2 Marks
VII	Define the terminologies: Trademarks, Trade secrets and trade dress?	2 Marks
IX	What does "CGPDTM" stand for, and write down its importance in the field of IPR?	2 Marks
X	What is the full form of CPCSEA, and what is its role?	2 Marks
XI	Define LD50 and LC50 in toxicity studies.	2 Marks
XII	Name any two microorganisms handled in BSL-3 laboratories.	2 Marks

BEST OF LUCK