

## M.Sc Sem-3 Examination

501

Toxicology

Time : 2-30 Hours]

November-2024

[Max. Marks : 70

Q1A	Explain the characteristics of sample documentation. How sample documentation differs in qualitative and quantitative research?	7 Marks
Q1B	Explain the difference between qualitative and quantitative research.	7 Marks
OR		
Q1A	What are techniques of documentation in research? Give examples of computational methods for documentation.	7 Marks
Q1B	What are the key techniques of data analysis in qualitative and quantitative research? Explain the graphical methods to be used in quantitative research.	7 Marks
OR		
Q2A	List out different parts of research paper. Explain importance of title and abstract in a research article.	7 Marks
Q2B	What is the structure of result in a research paper? Explain in detail.	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? Write down the key skills and structure of presentation.	7 Marks
OR		
Q3A	Write down a case study related to the first biotechnology patent: DIAMOND VS CHAKRABARTY CASE	7 Marks
Q3B	Explain Trademarks in detail along with its types, exclusive rights, and limitations.	7 Marks
OR		
Q3A	Write down the detailed note on patents, including patentable and non-patentable inventions (section 3 exclusions) under the Patents Act, 1970.	7 Marks
Q3B	Define the term "Intellectual Property Rights", and provide a comprehensive overview on IPRs and discuss the different areas covered by IPRs?	7 Marks
OR		
Q4A	What are the ethical issues associated with in vivo toxicity testing? Discuss the balance between scientific advancement and animal welfare.	7 Marks
Q4B	Explain the phases of clinical trials, including the design, trial size, and study population.	7 Marks
OR		
Q4A	Discuss the significance of both in vitro and in vivo toxicity models in preclinical testing.	7 Marks
Q4B	Explain the different Biosafety Levels (BSL) — BSL1, BSL2, and BSL3. How are these levels categorized?	7 Marks
OR		
Q5	Answer the following questions (Any Seven)	14 Marks
OR		
I	Give two examples of subjects that follow qualitative research methodology.	2 Marks
II	Write down four differences in inquiry form for qualitative v/s quantitative research.	2 Marks

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III	Give example of two error sources in qualitative and quantitative research.	2 Marks
IV	What is “errata”? What is the importance of it?	2 Marks
V	Here is the citation of a research article in APA format “Motiie, P. (2020, December). Expression of IDI in Dhatura plant. <i>Biochime.</i> ” What is the name of the article and name of the journal from this?	2 Marks
VI	What is DOI number of a paper? Which reference style is most used in biological research?	2 Marks
VII	Write down two limitations of copyrights.	2 Marks
VII	Write down the types and subtypes of patents.	2 Marks
IX	What is TM, SM and ® in respect to trademarks?	2 Marks
X	Define BSL1 and give one example of when this biosafety level is used.	2 Marks
XI	What is the purpose of clinical trials in drug development?	2 Marks
XII	What factors are considered when determining the size and population of a clinical trial?	2 Marks

**BEST OF LUCK**