1311E1123

Candidate's Seat No : _____

M.Sc. Sem.-3 Examination

501

Pharma Science

November-2025

Time : 2-30 Hours] **[Max. Marks : 70**

Q1A	Discuss the difference between fundamental and applied research. Give pharmaceutical examples for each.	7 Marks
Q1B	What is descriptive research, discuss different types of descriptive research with suitable examples?	7 Marks
	OR	
Q1A	Define research. Explain its nature and describe different types of research based on objectives with suitable examples.	7 Marks
Q1B	Explain experimental research. Describe the key terms used in conducting experimental research and discuss its types with suitable examples.	7 Marks
Q2A	Explain the different types of quantitative research designs and discuss their applications in pharmaceutical sciences.	7 Marks
Q2B	Discuss the process of qualitative research, highlighting the key stages from thematizing to reporting.	7 Marks
	OR	
Q2A	Compare and contrast quantitative and qualitative research. Why is it important to integrate both approaches in modern biomedical research?	7 Marks
Q2B	Discuss the role of hypothesis testing and the scientific method in quantitative research. How do variables, controls, and data analysis contribute to the reliability of results?	7 Marks
Q3A	Name different parts of research papers. What is keyword? Explain in detail about selection and utilization of keywords.	7 Marks
Q3B	What is the structure of "result and discussion" section of research paper? Explain how to write it in better way.	7 Marks
	OR	
Q3A	List out different reference styles. Name reference management tools and explain any three.	7 Marks
Q3B	What is the importance of presentations? Explain its types and key skills.	7 Marks
Q4A	Define the term "Intellectual Property Rights", and provide a comprehensive overview on IPRs and discuss the different areas	7 Marks

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	covered by IPRs?	
Q4B	Explain Copy Rights in detail along with appropriate examples, its exclusive rights and limitations.	7 Marks
	OR	
Q4A	Explain Trademarks in detail along with its types, exclusive rights, and limitations.	7 Marks
Q4B	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
Q5	**Answer the following questions (Any Seven)**	**14 Marks**
I	What are correlational studies intended to investigate, and what is the symbol used for the correlation coefficient?	2 Marks
II	What is the role of MeSH terms in PubMed searches?	2 Marks
III	List two of the National E-Library resources or services provided by INFLIBNET.	2 Marks
IV	How does an experimental research design differ from a descriptive one?	2 Marks
V	What is meant by an independent and dependent variable in quantitative studies?	2 Marks
VI	What is the significance of using a control group in quantitative experiments?	2 Marks
VII	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
VII	What is "errata"? What is the importance of it?	2 Marks
IX	What is DOI number of a paper? Which reference style is most used in biological research?	2 Marks
X	Who is eligible to receive a plant patent, and what criteria must be met for the patent to be granted?	2 Marks
XI	Define the terminologies: Trademarks, Trade secrets and trade dress?	2 Marks
XII	What does "CGPDTM" stand for, and write down its importance in the field of IPR?	2 Marks

BEST OF LUCK