

MSc Sem.-1 Examination

404

Pharma Science

February-2025

Time : 2-30 Hours]

[Max. Marks : 70

Q1A	Write a detailed note on enantiomers and diastereomers.	7 Marks
Q1B	Write down the importance of chiral compound in medicinal with suitable example.	7 Marks
OR		
Q1A	Explain racemic modification its properties and methods.	7 Marks
Q1B	What is the definition of non-chiral compound? Explain any two non-chiral compounds.	7 Marks
OR		
Q2A	What is the role of haemoglobin? Explain haemoglobin in detail.	7 Marks
Q2B	Explain any one anticancer drug in detail.	7 Marks
OR		
Q2A	Write note on cyano cobalamin or zinc metallo enzymes.	7 Marks
Q2B	Explain MRI in detail.	7 Marks
OR		
Q3A	Define and explain the concepts of quality control, quality assurance, and quality auditing. Discuss their importance in the pharmaceutical industry.	7 Marks
Q3B	Explain the basic requirements of cleaning in pharmaceutical manufacturing and the importance of its validation.	7 Marks
OR		
Q3A	Explain the control measures for packaging materials and labeling in the pharmaceutical industry. Why is it important?	7 Marks
Q3B	Write a detailed note on the process of technology transfer from R&D to manufacturing in the pharmaceutical industry.	7 Marks
OR		
Q4A	In a hypothetical condition, if my data does not fit in normal distribution and I want to compare the mean difference between the control and the sample groups, which statistical test can I apply? Explain the test in detail.	7 Marks
Q4B	What is hypothesis testing? Explain it with an example.	7 Marks
OR		
Q4A	Give a brief note on types of data.	7 Marks
Q4B	Write a detailed note on ANOVA test.	7 Marks
OR		
Q5	Answer the following questions (Any Seven)	14 Marks
OR		
I	What is position isomers, give one example?	2 Marks
II	Give reasons for the following: (\pm)-2-Butanol is optically inactive.	2 Marks
III	Draw Fischer projections for a- (2R, 3S)-2-bromo-3-chlorobutane and (2S, 3R)-2-bromo-3-chlorobutane, with the carbon chain on the vertical line. Label each structure as (2R, 3S) or (2S, 3R).	2 Marks
IV	Wilson disease is caused due to excess?	2 Marks
V	Give examples for trace elements.	2 Marks
VI	Which among the following is toxic to central nervous system? (a) lead	2 Marks

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	(b) copper (c) copper. Give an example of an heart imaging agent.	
VII	What is GMP, and why is it important in the pharmaceutical industry?	2 Marks
VII	What does ISO stand for, and why is it relevant to pharmaceutical quality management?	2 Marks
IX	What is the purpose of sampling in pharmaceutical quality control?	2 Marks
X	What is false positive error?	2 Marks
XI	Give two differences between correlation and regression.	2 Marks
XII	Which statistic is applied for Mann Whitney U test	2 Marks

BEST OF LUCK