2/51

2111E757

Candidate's Seat No :_____

M.Sc Sem-3 Examination

502

Pharma Science

Time : 2-30 Hours] **November-2024** **[Max. Marks : 70**

Q1A	Describe the role and mechanism of disintegrants in tablet formulations. How do they influence the disintegration time and overall performance of tablets?	7 Marks
Q1B	Outline the differences between immediate-release, sustained-release, and controlled-release tablets. Provide examples of situations where each type of tablet would be appropriate.	7 Marks
	OR	
Q1A	Discuss the various quality control tests performed on tablets, such as hardness, friability, and dissolution tests. Explain why each test is important for ensuring the quality of the final product.	7 Marks
Q1B	Describe the common excipients used in tablet formulations and their functions. Provide examples of each type of excipient, such as binders, fillers, lubricants, and colorants.	7 Marks
Q2A	Describe the process of manufacturing hard gelatin capsules. Discuss the key steps involved and the factors that influence the quality of the final product.	7 Marks
Q2B	Outline the role of different types of excipients used in capsule formulations, such as fillers, lubricants, and glidants. Provide examples and explain their specific functions.	7 Marks
	OR	
Q2A	Explain the differences between hard gelatin capsules and soft gelatin capsules in terms of composition, manufacturing process, and applications.	7 Marks
Q2B	Describe the advantages and limitations of using capsules as a dosage form. Include considerations related to patient compliance, drug stability, and formulation challenges.	7 Marks
Q3A	Describe the types of containers and closures used for sterile dosage forms. How do these components ensure the integrity and sterility of the final product?	7 Marks
Q3B	Discuss the importance of aseptic processing in the manufacturing of sterile dosage forms. Highlight the key steps involved and the challenges associated with maintaining sterility throughout the process.	7 Marks
	OR	
Q3A	Outline the various quality control tests for sterile dosage forms testing. Explain the purpose and the methods commonly used.	7 Marks
Q3B	Explain the formulation and requirements for ophthalmic preparations according to the Indian Pharmacopoeia (IP).	7 Marks

(P.T.O)

Q4A	Discuss the evaluation tests for capsules, including weight variation, content uniformity, and dissolution tests. Explain how each test ensures the quality and efficacy of capsule formulations.	7 Marks
Q4B	How are ophthalmic preparations evaluated to ensure quality and safety?	7 Marks
	OR	
Q4A	Explain the process and significance of conducting the friability test for tablets. How does this test contribute to the overall quality control of tablet dosage forms?	7 Marks
Q4B	What are the essential parameters for the evaluation of cosmetic products? Discuss with examples.	7 Marks
Q5	**Answer the following questions (Any Seven)**	**14 Marks**
I	What is the primary role of disintegrants in tablet formulations?	2 Marks
II	Define sustained-release tablets and provide one example where they would be used.	2 Marks
III	Why is the hardness test important in the quality control of tablets?	2 Marks
IV	Give two examples of common binders used in tablet formulations.	2 Marks
V	What is the key difference between hard gelatin capsules and soft gelatin capsules in terms of composition?	2 Marks
VI	List two advantages of using capsules as a dosage form.	2 Marks
VII	What is the role of closures in maintaining the sterility of sterile dosage forms?	2 Marks
VII	Why is aseptic processing critical in the manufacturing of sterile dosage forms?	2 Marks
IX	What is the purpose of the weight variation test in capsule evaluation?	2 Marks
X	Name two evaluation tests that are commonly performed on ophthalmic preparations to ensure quality.	2 Marks
XI	What is the significance of the friability test in the quality control of tablets?	2 Marks
XII	List two important parameters for evaluating cosmetic products and explain their relevance.	2 Marks

BEST OF LUCK