JHARKHAND Rai University
RANCHI

End Semester/Reappear (Semester V) Examination Dec 2024

Programme: B. Pharm
Course: Industrial Pharmacy I **Full Marks: 75**
Course Code: BP502T **Time: 3 Hrs.**
Enrolment no. _____

Q.No.	Questions	CO	Bloom Taxonomy Category	Marks
	Section I			
1	**Objective Type Questions**			**1 x 20 = 20**
	i. BCS class II drug has a. High Solubility and High Permeability b. Low Solubility and High Permeability c. High Solubility and Low Permeability d. Low Solubility and Low Permeability ii. If the Hausner Ratio of a powder is 1.11, the flow property is a. Excellent b. Good c. Fair d. Poor iii. Which preformulation parameter is related to the drug's ability to cross biological barriers and reach the systemic circulation? a. Solubility b. Permeability c. Polymorphism d. Hygroscopicity iv. What is the significance of determining the partition coefficient (log P) in preformulation studies? a. To assess clinical efficacy b. To understand the drug's physical form c. To evaluate its safety d. To predict its distribution in biological tissues v. Which preformulation study helps in understanding the drug's behavior under different pH conditions? a. pKa determination b. Hygroscopicity study c. Particle size analysis d. Compatibility study vi. Which of the following is a disadvantage of using hard gelatin capsules? a. Poor stability b. Limited compatibility with different drugs c. Slow dissolution d. High production cost vii. What is the typical size range for hard gelatin capsules, expressed in numerical terms? a. 00, 0, 1, 2, 3, 4, 5 b. A, B, C, D c. I, II, III, IV d. Small, medium, large viii. What is the primary material used in the production of soft gelatin capsules? a. Starch b. Gelatin c. Cellulose d. Pectin ix. Which type of tablet coating is designed to protect the drug from the acidic environment of the stomach? a. Enteric coating b. Sugar coating c. Film coating d. Opacifying coating x. Which of the following is a common method used for tablet hardness testing during tablet evaluation? a. Karl Fischer titration b. Dissolution testing c. Disintegration testing d. Monsanto hardness tester xi. Friability test is done at a. 75rpm b. 50rpm c. 25rpm d. 20rpm xii. The ratio of the oil water and gum in emulsion is a. 1:2:4 b. 2:4:1 c. 4:2:1 d. 1:4:2 xiii. Angle of Insertion with skin in case of I.M. route is a. 15° b. 25° c. 45° d. 90° xiv. Which of the following is used as tonicity adjusters a. NaCl b. PEG400 c. Methyl Cellulose d. WFI xv. The volume of injection for Intradermal is a. 1ml b. 10-20ml c. 0.1- 0.2ml d. 5-6ml xvi. For parenteral preparation, Isopropyl Myristate is an example of a. aqueous vehicle b. non-aqueous vehicle c. water-miscible vehicle d. none of these xvii. The limit for Total solid content for Sterile WFI is a. 10ppm b. 20ppm c. 50ppm d. 100ppm xviii. Shells of soft gelatine may be made elastic or plastic by addition of- a. sorbitol b. PEG c. povidone d. HPMC xix. Intra-arterial injection is given in a. artery b. joints c. aorta d. muscle xx. Intra-articular injection is given in a. artery b. joints c. aorta d. muscle			
	Section II			
2. Short Answer type questions.				
a	Write a short note on Hydrolysis and racemisation.	CO1	Understand	

b	Distinguish between flocculated suspension and Deflocculated suspension.	CO2	Understand	
c	Explain the methods of soft gelatin capsule preparation.	CO3	Understand	
d	Write a short note on production facility and control of parenteral products.	CO4	Understand	
e	Classify cosmetics with suitable examples.	CO5	Understand	**7 x 5 = 35**
f	Write about physicochemical characteristics of drug substances.	CO1	Understand	
	Explain the Biopharmaceutics Classification System (BCS) and its significance.	CO1	Understand	
g	Provide a schematic explanation of the wet and dry granulation process.	CO2	Understand	
	or			
	Describe the steps involved in sugar coating.	CO2	Understand	
Section III				
Long Answer Type questions				
3	Illustrate the key considerations and quality control tests for ophthalmic preparations.	CO4	Apply	
	or			
	Illustrate the Quality Control test of the parenteral products.	CO4	Apply	**2 x 10 = 20**
4	Illustrate the Quality Control test of Containers used in packaging.	CO5	Apply	
	or			
	Illustrate briefly about the ingredients used in the lipstick preparation.	CO5	Apply	

Course Outcomes (CO):

CO1: Detailed knowledge about the preformulation studies of different drugs and excipients
CO2: Detailed knowledge about tablets and oral liquids.
CO3: Detailed knowledge about capsules and pellets
CO4: Detailed knowledge about sterile products.
CO5: Detailed knowledge about pharmaceutical aerosol, packaging material, and different cosmetics.