

Roll No.: _____

Enrolment No. _____

PARUL UNIVERSITY
PARUL INSTITUTE OF PHARMACY AND RESEARCH
B.PHARM FIFTH SEMESTER
FIRST INTERNAL THEORY EXAMINATION: 2022-23

Subject Name: Industrial Pharmacy - I
 Subject Code: BP502T

Date: 19/07/2022
 Time: 07:45 to 09:00
 Total Marks: 30

Instructions:

1. Figures to the right indicate full marks.
2. Make suitable assumptions wherever necessary.

Q.1	Multiple Choice Questions:	
(1)	The relationship between pH and the solubility and pKa value of an acidic drug is given by (a) Bragg's Equation (b) Noyes Whitney Equation (c) Henderson Hasselbalch equation (d) All of the above	01
(2)	In Case of BCS class IV drug what is rate limiting step (a) Solubility (b) Dissolution rate (c) Case Dependent (d) Permeability	01
(3)	As Surface to volume ratio of drug particle (API) Increases, solubility _____. (a) Decreases (b) non-affected (c) Increases (d) A&C both	01
(4)	Infra-Red spectroscopy is used for determining (a) Crystallinity (b) Shape (c) Functional groups (d) Particle size	01
(5)	Preformulation is about ensuring a) Stability (b) Safety (c) Efficacy (d) All of the above	01
(6)	Amorphous form shows a) Poor solubility (b) Long range order (c) Good solubility (d) None	01
(7)	Select correct order for volumes of injection. a) im>iv>id>iv (b) iv>sc>im>id (c) iv>im>sc>id (d) Incorrect	01
(8)	Parenteral route is preferred for its a) Rapid onset of action (b) elimination of absorption (c) reduce dose (d) all of the above.	01
(9)	Which statement is correct for sterile dosage form a) Free from viable microbes (b) free from microbes (c) free from all non-viable microbes (d) none of the above	01
(10)	Ideal parenteral dosage form must be a) sterile (b) pyrogen free (c) isotonic (d) all of the above	01

Q.2	Long Answers: (Any One)		
	1)	Define preformulation, enlist physico-chemical parameters and explain solubility analysis, Pka and Partition coefficient of a drug in preformulation studies.	10
	2)	Write a detailed note on Biopharmaceutical classification system & write objectives of Preformulation Studies	10
Q.3	Short Answers: (Any Two)		
	1)	Write a difference between IM, IV, SC and ID route of administration	05
	2)	Define tablet & write advantages, disadvantages of tablets	05
	3)	Draw a flow diagram of multidisciplinary development of drug candidate & explain each steps briefly.	05