Seat No.: _____ *Enrolment No._____*

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm. IST Semester Examination – June- 2011

Subject code: 910102

Subject Name: Pharmaceutical Formulation Development & Biopharmaceutics

Date:22/06/2011 **Time: 10:30 am – 01:30 pm**

Total Marks: 80

Instructions:

1. **Attempt any five questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Frame the preformulation study for preparation of oral tablets.	**06**
	(b)	Give the details of dissolution equipments in pharmacy.	**05**
	(c)	Give the Importance of half life in stability study.	**05**
Q.2	**(a)**	Give the importance of particle size and particle size distribution in preformulation study.	**06**
	(b)	Comment on: accelerated stability study is only temperature affected stability study.	**05**
	(c)	Give the methods for studying bioavailability.	**05**
Q.3	**(a)**	Why OVIs are considered in preformulation study?	**06**
	(b)	How the stability of formulation is lost by environmental factors?	**05**
	(c)	Give the importance of Vd, Cl in pharmacokinetic.	**05**
Q.4	**(a)**	Techniques for improvement of solubility of poorly soluble drugs.	**06**
	(b)	Give the regulatory aspects related to stability study.	**05**
	(c)	Give the importance and classification of compartment models.	**05**
Q.5	**(a)**	Define solubility terms and give their applications.	**06**
	(b)	How the salt form of the drug affected the drug absorption?	**05**
	(c)	Detail the methods for establishing IVIVC.	**05**
Q. 6	**(a)**	How the dissolution media and conditions are selected in dissolution study?	**06**
	(b)	How the gastric emptying time affected the drug absorption?	**05**
	(c)	Give the factors affecting IVIVC.	**05**
Q.7	**(a)**	Give the importance of BCS in dosage form development.	**06**
	(b)	Importance of CACO2 monolayer cell line for drug absorption.	**05**
	(c)	Give the formulation aspect of herbal dental powder in detail.	**05**

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