Enrollment No: _____ Exam Seat No:_____

C.U.SHAH UNIVERSITY

Summer Examination-2017

Subject Name : Pharmaceutical Dosage Form Design I

Subject Code : 4PS07DFD1 Branch :B.Pharm

Semester : 7 Date : 23/03/2017 Time : 02:30 To 05:30 Marks : 70

Instructions:

(1) Use of Programmable calculator & any other electronic instrument is prohibited.
(2) Instructions written on main answer book are strictly to be obeyed.
(3) Draw neat diagrams and figures (if necessary) at right places.
(4) Assume suitable data if needed.

Q-1 Attempt the following questions: (14)

Define the following terms:

a) Habit
b) Amorphous
c) Monotropic
d) Energy of Activation
e) Arrhenius Factor
f) Area under curve
g) Dissolution
h) Osmosis
i) Disintegrant
j) Overages
k) Sink condition
l) Absorption
m) Elimination
n) Pharmacodynamic

Attempt any four questions from Q-2 to Q-8

Q-2 Attempt all questions (14)

a) Define Preformulation? Explain the physicochemical properties related to solubility analysis in Preformulation. **(7)**

b) Describe the various measures to prevent hydrolysis decomposition. **(7)**

Q-3 Attempt all questions (14)

a) Explain the effect of salt formation and racemization in preformulation. **(7)**
b) Write a short note on anti-oxidants. **(7)**

Q-4		**Attempt all questions**	**(14)**
	a)	Define prodrugs. Discuss pharmaceutical application of prodrugs.	**(7)**
	b)	Describe matrixing and bracketing in stability study.	**(7)**
Q-5		**Attempt all questions**	**(14)**
	a)	Discuss plasma protein drug binding.	**(7)**
	b)	What is BCS? Classify and give the significance of this system.	**(7)**
Q-6		**Attempt all questions**	**(14)**
	a)	Differentiate absolute and relative bioavailability. Discuss the pharmacokinetic methods for the bioavailability measurement.	**(7)**
	b)	What is gastric emptying? Describe its role in drug absorption.	**(7)**
Q-7		**Attempt all questions**	**(14)**
	a)	Write a short note on drug distribution to blood brain barrier.	**(7)**
	b)	Explain AUC. What is its significance? How will you measure it?	**(7)**
Q-8		**Attempt all questions**	**(14)**
	a)	Explain any one dissolution test apparatus as per I.P.	**(7)**
	b)	Write a note on stability testing guideline as per ICH for pharmaceutical drug product.	**(7)**