## C.U.SHAH UNIVERSITY Summer Examination-2019

Subject Name: Pharmaceutical Dosage Form Design IISubject Code: 4PS08DFD1Branch: B.PharmSemester: 8Date: 18/04/2019Time: 10:30 To 01:30Marks: 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.

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## **Define the following terms**

- a) Hydrogel
- **b**) Distribution coefficient
- c) Microspheres
- d) Microcapsules
- e) First pass effect
- f) Absorption rate constant
- g) First order kinetics
- **h**) Matrix system
- i) Reservior system
- **j**) Maintenance dose
- **k**) Volume of distribution
- l) Clearance
- **m**) Total body clearance
- **n**) Loading dose

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

Q-2		Attempt all questions	(14)
•	a.	Describe the ideal requirements for sustained release formulation.	(7)
	b.	Discuss physicochemical factors to be considered for oral controlled release system	(7)
Q-3		Attempt all questions	(14)
•	a.	Describe formulation and evaluation of liposomes.	(7)
	b.	Describe evaluation of transdermal drug delivery system	(7)
Q-4		Attempt all questions	(14)
-	a.	Write note on formulation and evaluation of microspheres	(7)
	b.	Write note on zero order kinetics.	(7)
Q-5		Attempt all questions	(14)
	a.	Describe various methods for preparation of Nanosuspension	(7)
	b.	Derive equations for absorption rate constant using Wagner- Nelson and Loo-	(7)
		Riegelman method.	
Q-6		Attempt all questions	(14)
	a.	What do you mean by pharmacokinetic models? Discuss its importance and	(7)



(14)

		application of it	
	b.	Enlist the methods for determination of absorption rate constant. Explain any one method in detail.	(7)
Q-7		Attempt all questions	(14)
Q-1			· · · · · ·
	a.	Explain how one can detect nonlinear pharmacokinetics? Explain Michaelis	(7)
		Menten equation for capacity limited process.	
	b.	Explain dosage adjustment in patients with renal and hepatic failure	(7)
Q-8		Attempt all questions	(14)
-	a.	Define Clinical Pharmacokinetics and Describe scope of it	(7)
	b.	What do you mean by combination therapy? What kind of drug interactions are	(7)
		possible, explain giving suitable examples	(7)

