

Enrollment No: _____ Exam Seat No: _____

C.U.SHAH UNIVERSITY

Summer Examination-2017

Subject Name: Physical Pharmacy II

Subject Code: 4PS04PHP2

Branch: B.Pharm

Semester: 4

Date: 15/04/2017

Time: 10:30 To 1:30

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.
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Q-1	Define following terms:	(14)
	a) Micromeritics	01
	b) Derived properties	01
	c) Angle of repose	01
	d) Carr's Index	01
	e) Hausner's ratio	
	f) Newtonian flow	01
	g) Non-newtonian flow	01
	h) Thixotropy	01
	i) Order of reaction	01
	j) Half life	01
	k) Shelf life	01
	l) Complexation	01
	m) Protein binding	01
	n) Polymers	01

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

Q-2	Attempt all questions	(14)
	a) Enlist various methods for determination of particle size and explain coulter counter method in detail.	07
	b) Write a note on derived properties of powder.	07



Q-3	Attempt all questions	(14)
	a) Discuss the factors affecting powder flow.	07
	b) Explain Pharmacopoeial specification of angle of repose, hausner's ratio, carr's index	07
Q-4	Attempt all questions	(14)
	a) Discuss in detail about Thixotropy.	07
	b) Discuss in detail about Negative Thixotropy.	07
Q-5	Attempt all questions	(14)
	a) Explain types of flow in non-newtonian systems.	07
	b) Classify various viscometers. Describe any one viscometer with diagram to find out viscosity of Non-Newtonian fluids.	07
Q-6	Attempt all questions	(14)
	a) Derive the rate constant equation for first order reaction. Explain how to derive half-life and shelf life equation for first order reaction.	07
	b) What are the factors affecting rate of reaction? Explain the effect of temperature in detail.	07
Q-7	Attempt all questions	(14)
	a) Describe the chemical degradation of drugs via oxidation.	07
	b) Write a note on accelerated stability study.	07
Q-8	Attempt all questions	(14)
	a) Enumerate the types of complexes. Discuss in detail about chelates.	07
	b) Discuss the methods to determine protein binding.	07

