

# C.U.SHAH UNIVERSITY

## Summer Examination-2018

**Subject Name:** Pharmaceutical Industrial Process I

**Subject Code:** 4PS02PIP1

**Branch :** B.Pharm

**Semester :** 2

**Date :** 23/04/2018

**Time :** 10:30 To 01:30

**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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<b>Q-1</b>	<b>Define the following terms:</b>	<b>(14)</b>
	a) Impact	(1)
	b) Attrition	(1)
	c) Bond's law	(1)
	d) Kick's law	(1)
	e) Size separation	(1)
	f) Diffusive mixing	(1)
	g) Turbulent mixing	(1)
	h) Clarification	(1)
	i) Filter aids	(1)
	j) Crystal lattice	(1)
	k) Amorphous solids	(1)
	l) Polymorphs	(1)
	m) Decoction	(1)
	n) Menstruum	(1)

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

<b>Q-2</b>		<b>(14)</b>
a	Write principle, construction, working, advantages and disadvantages of hammer mill.	(7)
b	Explain cyclone separator with the help of suitable diagram	(7)
<b>Q-3</b>		<b>(14)</b>
a	Describe in detail fluid energy mill with the help of suitable diagram.	(7)
b	Write principle, construction, working, advantages and disadvantages of ribbon blender.	(7)
<b>Q-4</b>		<b>(14)</b>
a	Write principle, construction, working, advantages and disadvantages of sigma blade mixer.	(7)
b	Explain silverson-mixer with the help of suitable diagram.	(7)



- Q-5** (14)  
a Explain various factors which influence the filtration. (7)  
b Write a note on theories of filtration. (7)
- Q-6** (14)  
a Explain Swenson Walker Crystallizer with the help of suitable diagram. (7)  
b Write a note on meta filter. (7)
- Q-7** (14)  
a Write different types of extraction processes. Explain any one. (7)  
b Write a note on Mier's supersaturation theory. (7)
- Q-8** (14)  
a Describe the applications of crystallization. (7)  
b Write a note on effluent treatment plant. (7)

