

# C.U.SHAH UNIVERSITY

## Winter Examination-2018

**Subject Name:** Pharmaceutical Industrial Process I

**Subject Code:** 4PS02PIP1

**Branch :** B.Pharm

**Semester :** 2

**Date :** 20/10/2018

**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.
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- Q-1** **Define the following terms:** **(14)**
- a) Size reduction (1)
  - b) Supersaturation (1)
  - c) Rittinger's law (1)
  - d) Convective mixing (1)
  - e) Laminar mixing (1)
  - f) Molecular diffusion (1)
  - g) Crystal lattice (1)
  - h) Habit (1)
  - i) Nucleation (1)
  - j) Extraction (1)
  - k) Darcy's equation (1)
  - l) Filter aid (1)
  - m) Filter media (1)
  - n) Percolation (1)

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

- Q-2** **(14)**
- a Write principle, construction, working, advantages and disadvantages of ball mill. (7)
  - b Explain colloid mill with the help of suitable diagram (7)
- Q-3** **(14)**
- a Describe the factors influencing size reduction. (7)
  - b Write principle, construction, working, advantages and disadvantages of Sieve shaker. (7)
- Q-4** **(14)**
- a Write principle, construction, working, advantages and disadvantages of Double cone blender. (7)
  - b Explain Planetary mixer with the help of suitable diagram. (7)



- Q-5** (14)
- a Describe Mier's supersaturation theory in crystallization. (7)
  - b Write various applications of crystallization. (7)
- Q-6** (14)
- a Describe the various factors which influence the filtration. (7)
  - b Explain the principle of centrifugation. (7)
- Q-7** (14)
- a Explain soxhlet apparatus used in pharmacy. (7)
  - b Write a note on maceration. (7)
- Q-8** (14)
- a Explain fire and explosion hazards. (7)
  - b Write a note on chemical hazards. (7)

