

Enrollment No: _____ Exam Seat No: _____

C.U.SHAH UNIVERSITY

Winter Examination-2018

Subject Name: Pharmaceutical Engineering-Theory

Subject Code: BP304T

Branch: B.Pharm

Semester: 3

Date: 04/12/2018

Time: 02:30 To 05:30

Marks: 75

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.
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- Q-I Attempt all the following questions. [2X10]=20**
- a) Objectives of evaporation [2]
 - b) Fanning equation [2]
 - c) Free Moisture Content [2]
 - d) Bond's law [2]
 - e) Bar screen [2]
 - f) Filter aid [2]
 - g) Radiation [2]
 - h) Membrane filter [2]
 - i) Raoult's law [2]
 - j) Unbound water [2]
- Q-II Long Answer (Answer 2 out of 3) [2X10]=20**
- a) Describe principle, construction, working, merits and demerits of ball mill. [10]
 - b) Explain principle, construction, working, advantages, disadvantages and uses of sigma blade blender. [10]
 - c) Discuss in detail Freeze Dryer. [10]
- Q-III Short Answer (Answer 7 out of 9) [7X5]=35**
- a) Write principle, construction and working of fluid energy mill. [5]
 - b) Discuss the Reynold's experiment with neat labeled diagram. [5]
 - c) Describe drying rate-curve. [5]
 - d) Explain construction, working, merits and demerits of forced circulation evaporator. [5]
 - e) Describe construction, working and applications of Spray Dryer. [5]
 - f) Write construction, working, merits and demerits of steam distillation. [5]
 - g) Derive an equation for conduction of heat through a metal wall. [5]
 - h) Differentiate between solid mixing and liquid mixing. [5]
 - i) Explain the various factors influencing corrosion. [5]

