

B.Pharm II Year II Semester (R13) Supplementary Examinations May/June 2018

PHARMACEUTICAL ENGINEERING – II

Time: 3 hours

Max. Marks: 70

PART – A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) Write the difference between evaporation and drying.
 - (b) Define evaporation and list the factors affecting evaporation.
 - (c) With the help of drying rate curve, explain CMC, EMC and FMS.
 - (d) Define bound moisture and unbound moisture.
 - (e) Write the mechanism of size reduction.
 - (f) Write about principle involved in fluid energy mill.
 - (g) Explain the term mixing indices.
 - (h) Write a note on solid-solid mixing.
 - (i) Write the significance of size separation.
 - (j) Classify the methods of size separation.

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

- 2 Explain how Fourier's law is used in the design of an oven linings to minimize heat losses.

OR

- 3 Explain natural convection and forced convection.

UNIT – II

- 4 Write the factors affecting evaporation and explain the long tube evaporator.

OR

- 5 Write the pharmaceutical applications of distillation.

UNIT – III

- 6 (a) Write the classification of drying equipment.
(b) Explain fluid bed dryer with neat diagram.

OR

- 7 Write the principle, construction and working of freeze dryer.

UNIT – IV

- 8 What are the objectives of size reduction and explain about ball mill?

OR

- 9 Write the modes of motion and size separation.

UNIT – V

- 10 Write the principle, construction and working of sigma blade mixer.

OR

- 11 Write the principle, construction and working of Silverson mixer.
