

PY-401

B.Pharmacy IV Semester Examination, December 2016

Pharmaceutics - IV

Pharmaceutical Engineering - II

Time : Three Hours

Maximum Marks : 70

- Note:** i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.
ii) All parts of each question are to be attempted at one place.
iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.
iv) Except numericals, Derivation, Design and Drawing etc.

1. a) What are the objectives of size reduction?
b) Give the specification of sieves and their usage.
c) Discuss the factors affecting size reduction.
d) Discuss the construction, working and applications of hammer mill.

OR

What do you understand by extraction process? Describe different types of extractors with special reference to counter current extraction.

2. a) Define evaporation.
b) Enlist various factors affecting process of evaporation.
c) Compare single and multiple effect evaporation.
d) Explain construction, working and application of film evaporators.

OR

What do you understand by McCabe Thiele equation? How will you calculate evaporation capacity?

3. a) Define Azeotropic mixtures.
b) Explain Raoult's law.
c) Write a note on boiling point and equilibrium diagrams.
d) Classify dryers. Discuss construction, working and application of freeze dryer.

OR

Discuss theory of mixing. Explain different liquid-liquid mixers used in industries.

4. a) Define crystallization.
b) Discuss theory of crystallization.
c) Define filter aid and filter media. Explain various factors affecting filtration process.
d) Classify filters. Discuss any industrial filter along with its applications.

OR

Define the process of drying and also discuss theory of drying in detail.

5. a) Define centrifugation process.
b) What do you understand by angle of repose?
c) Write a note on compaction and compression.
d) Discuss the physics of tablet compression along with factors affecting strength of tablets.

OR

Discuss the concept of pilot plant and scale up techniques with suitable examples.