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B PHARM
(SEM III) THEORY EXAMINATION 2022-23
PHARMACEUTICAL ENGINEERING

Time: 3 Hours**Total Marks: 75****Note:** Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief. 10 x 2 = 20

- (a) Define fluid flow.
- (b) Outline the importance of size separation.
- (c) What is flash distillation?
- (d) Correlate among boiling point, vapor pressure & evaporation.
- (e) Recommend equipment suitable for semisolid mixing and give its labelled diagram.
- (f) Give the principle of Freeze Dryer.
- (g) Write the characteristics of filter aid.
- (h) Differentiate between sedimentation centrifuge and filtration centrifuge.
- (i) Give the importance of material selection.
- (j) Discuss the properties of Chromium and Nickel.

SECTION B

2. Attempt any twoparts of the following: 2 x 10 = 20

- (a) Classify various size reduction equipments and give the working of Edge Runner Mill with figure.
- (b) Explain in detail about the fractional distillation with diagram.
- (c) Illustrate the working & advantages, disadvantages, and uses of fluidized bed dryer with diagram.

SECTION C

3. Attempt any five parts of the following: 5 x 7 = 35

- (a) Discuss the various factors affecting size reduction.
- (b) Classify evaporators and discuss the factors influencing evaporation rate.
- (c) Classify mixing equipments and give the working of double cone blender with diagram.
- (d) Explain in detail the different factors influencing rate of filtration.
- (e) Write in detail about the theory of centrifugation.
- (f) Analyze the factors affecting selection of a material.
- (g) Classify and Discuss the theory of corrosion.