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B. PHARM.
(SEM: III) THEORY EXAMINATION 2020-21
PHARMACEUTICAL ENGINEERING

Time: 3 Hours

Total Marks: 75

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

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

a.	What is the significance of Reynold's Number?
b.	Define the terms Attrition & Impact?
c.	Name any 2 mechanisms of Size Separation.
d.	State and express Fourier's Law of heat transmission with equation.
e.	How evaporation differs from drying and distillation?
f.	What do you understand by Molecular Distillation?
g.	What do you mean by Eutectic Point?
h.	Differentiate between Mixing & Blending with examples.
i.	How will you write Poiseuille's and Darcy's equation for theory of filtration?
j.	What are Ferrous and Non-ferrous metals? Give 2 examples each.

SECTION B**2. Attempt any two parts of the following:****2 x 10 = 20**

a.	Give a neat sketch of two fluid manometers. Explain the construction and working principle of Simple Manometer,
b.	Describe principle, construction & working of Triple Effect Evaporator? What do you mean by economy of multiple effect evaporators? Explain.
c.	Discuss in details about the principle, construction, working and uses of Freeze Dryer.

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

a.	What do you understand by Size Reduction? Describe the principle, construction, working and uses of Ball Mill.
b.	Define the term Distillation. Discuss about the principle, construction, working and uses of Steam Distillation.
c.	Distinguish between Solid Mixing & Liquid Mixing. Add a note on the mechanisms of solid mixing and liquid mixing.
d.	What are the factors influencing filtration? Explain the principle and working of Drum Filter with the help of suitable diagram.
e.	Classify Evaporators. What are the factors influencing evaporation? Discuss.
f.	Describe the principle, construction working and uses of Non-Perforated Basket Centrifuge
g.	What is Corrosion? Name the various types of corrosion. How can corrosion be prevented?