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BPHARM
(SEM III) THEORY EXAMINATION 2021-22
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.	Draw the labelled diagram of orifice meter.
b.	Write applications of size reduction.
c.	What is mean free path of molecules ?
d.	Discuss the objectives of evaporation.
e.	Write pharmaceutical applications of mixing.
f.	Define conduction.
g.	Differentiate filter aids and filter media.
h.	Discuss the advantages and disadvantages of use of glass in pharmaceutical plant construction.
i.	Write the difference between turbulent and laminar flow of fluids.
j.	Describe various applications of Bernoulli's theorem.

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

a.	Summarize the principle, construction, working, uses, merits and demerits of elutriation tank for size separation.
b.	Explain the principle, construction, working, uses, merits and demerits of plate & frame filter.
c.	Compile the theories of corrosion and methods of prevention.

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

a.	Discuss the measurements and applications of Equilibrium Moisture content.
b.	Write the principles, construction, working, uses, merits and demerits of horizontal tube evaporator.
c.	Describe the mechanisms of liquids mixing and semisolids mixing.
d.	Show the basic principles and applications of distillation under reduced pressure.
e.	Write a detail note on ribbon blender.
f.	Draw a neat and labelled sketch of Supercentrifuge. Write its principle, construction, and working.
g.	Explain various ferrous and nonferrous metals used in pharmaceutical plant construction.