(**R13**)

(SET - 1)

II B. Pharmacy II Semester Supplementary Examinations, November - 2020
PHARMACEUTICAL UNIT OPERATIONS - II

Time: 3 hours   Max. Marks: 70

Note: 1. Question paper consists of two parts (**Part-A** and **Part-B)**
2. Answering the question in **Part-A** is Compulsory
3. Answer any **THREE** Questions from **Part-B**
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PART –A

1.	a)	Describe the terms black body and grey body.	(4M)
	b)	Classify evaporators with examples and explain any two factors affecting evaporation.	(4M)
	c)	Write a note on fractionating columns.	(4M)
	d)	Describe the factors to be considered for selection of dryer	(4M)
	e)	Write the mechanisms of size reduction with examples.	(3M)
	f)	Describe the degree of mixing.	(3M)

PART –B

2.	a)	Derive an equation for heat transfer by conduction through a cylinder.	(8M)
	b)	Explain the film coefficient and factors influencing on film coefficient.	(8M)
3.		Describe the principle, construction and working of film evaporators with a diagram.	(16M)
4.	a)	Explain the principle and procedure for Rectification.	(8M)
	b)	Explain the construction and working of distillation apparatus for preparation of purified water.	(8M)
5.	a)	Describe the principle, working and applications of Vacuum dryer with a diagram.	(8M)
	b)	Discuss the principle, working and applications of Tray dryer with a diagram.	(8M)
6.	a)	List out the laws governing size reduction.	(8M)
	b)	Write the principle, construction, working and applications of Fluid energy mill.	(8M)
7.	a)	Explain the theory of solid-solid mixing with suitable examples.	(8M)
	b)	Write the construction, working and applications of Silverson mixer.	(8M)