R13

SET - 1

II B. Pharmacy I Semester Supplementary Examinations, Oct/Nov - 2020
PHARMACEUTICAL UNIT OPERATIONS-I

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 various types of fluid flow and their properties?	(4M)
	b)	What are self priming pumps? Explain.	(4M)
	c)	Write brief notes on filter media.	(4M)
	d)	Write short note on crystal habit.	(4M)
	e)	What is adiabatic saturation temperature? Explain.	(3M)
	f)	What is pitting corrosion and galvanic corrosion?	(3M)

PART -B

2.	a)	State and explain Bernoulli's theorem.	(8M)
	b)	Describe the construction and working of rising stem and non rising stem gate valves.	(8M)
3.	a)	Discuss the construction and working of Gear pump.	(8M)
	b)	Describe the construction and working of screw conveyor.	(8M)
4.	a)	Describe Mier's theory of super saturation and list out its limitations.	(10M)
	b)	What is caking of crystals? How it is prevented?	(6M)
5.	a)	Write a note on factors effecting rate of filtration.	(8M)
	b)	Write theory of centrifugation.	(8M)
6.	a)	Describe methods of determination of humidity.	(6M)
	b)	Explain the design and working of central air conditioning system.	(10M)
7.	a)	Discuss any three methods used to tackle corrosion in pharmaceutical industry?	(8M)
	b)	Write a brief notes on types of fire hazards. ?	(8M)