GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM. – SEMESTER II– • EXAMINATION – SUMMER-2021

Subject Code: BP203TP **Date: 31/08/2021**
Subject Name: PHARMACEUTICAL ENGINEERING
Time: 10:30AM to 01:30PM **Total Marks: 80**
Instructions:
1. **Attempt any five questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Write principle, construction, working, advantages, disadvantages and applications of plate and frame filter press	**06**
	(b)	Describe various types of iron as materials of construction.	**05**
	(c)	Write a note on construction and working of leaf filter.	**05**
Q.2	**(a)**	Explain Principles, Construction, working, uses, merits and demerits of conical disc centrifuge.	**06**
	(b)	Derive the Bernoullis's equation with proper assumption.	**05**
	(c)	Describe fluid energy mill in detail.	**05**
Q.3	**(a)**	Enlist mechanisms of side reduction. Discuss the principle and operation of Ball Mill.	**06**
	(b)	Define distillation. Explain steam distillation with detailed diagram.	**05**
	(c)	What is Reynolds number? Describe its importance.	**05**
Q.4	**(a)**	Enlist official standards of powders. Discuss the principle and operation of Sieve Shaker.	**06**
	(b)	Derive an equation for heat transfer by conduction through compound resistance in series.	**05**
	(c)	Discuss the factors affecting evaporation process.	**05**
Q.5	**(a)**	Classify Monometers. Give advantages and disadvantages of Rotameter.	**06**
	(b)	Define evaporation. Give principle & operation of steam jacketed kettle.	**05**
	(c)	Explain Principles, Construction, working, uses, merits and demerits of planetary mixers.	**05**
Q. 6	**(a)**	What are the properties of glass? What are its applications as material of construction?	**06**
	(b)	Give difference between Orifice meter and Venturi meter.	**05**
	(c)	Explain drying curve with its application.	**05**
Q.7	**(a)**	What is corrosion? Discuss the factors that influence rate of corrosion.	**06**
	(b)	Give principle & operation of climbing film evaporator.	**05**
	(c)	Write principle & construction of Spray dryer with its merits & demerits.	**05**

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