2022

Food Engineering Operations-I

Full Marks: 100

Time: Three hours

The figures in the margin indicate full marks for the questions.

*Answer **any five** questions.*

1.	a)	What is pasteurization? Explain any one method.	5+5=10
	b)	Write down the importance of pasteurization.	10
2.	a)	During the harvesting of paddy moisture of the paddy is 18% wet basis. Convert it in to dry basis.	10
	b)	Explain the relationship between dry basis of moisture content and wet basis moisture content.	10
3.	Differentiate the following		
	a)	Compression and Shearing forces in Size reduction	10
	b)	Wet basis and Dry basis of moisture content	10
4.	a)	With neat labeled diagram discuss centrifugal milk separator.	3+7=10
	b)	With neat labeled diagram explain batch type pasteurizer.	3+7=10
5.	a)	Describe a belt conveyor with its application in food processing.	10
	b)	Describe a bucket elevator with a neat diagram and its application in food processing.	10
6.	Write short notes on the following		
	a)	Pneumatic Conveyor	5
	b)	Law of conservation of energy	5
	c)	Screw Conveyor	5
	d)	Homogenizer	5
7.	a)	What do you mean by Size reduction? Discuss different objective of size	10

		reduction process.	
	b)	Write the law of conservation of mass. Discuss different Steps/process involved in solving Mass balance problems	10