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Seat I	Enrolment No		
		GUJARAT TECHNOLOGICAL UNIVERSITY	
		ME – SEMESTER II (NEW) – • EXAMINATION – SUMMER 2016	
Subject Code: 2724009 Date: 02/0		6/2016	
•		Name: Cleaner Production in Rubber Industries	
		:30 am to 01:00 pm Total Mar	rks: 70
Instru		s: Attempt all questions.	
	2.	Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1		Discuss the six steps of cleaner production methodology to implement cleaner production in an industry.	14
Q.2	(a)	Mention the check list of good housekeeping. Explain them in detail.	07
	(b)	it with suitable example of rubber industry.	07
	(b)	OR	
	(b) i	Answer the following Define the term 'waste'. Write in brief about the causes of waste generation in rubber industries.	05
	ii	Write down the major difference between cleaner production and cleaner technology.	02
Q.3	(a)	Discuss in detail about the processing of rubber sheet with block diagram.	07
	(b) i	Answer the following Write about the current situation and limitations of waste water treatment of natural rubber latex processing.	04

ii Write in brief about air pollution control with respect to natural rubber production process.
Q.4 (a) How the latex factories with lower rubber loss differ from those factories with higher rubber loss?
(b) Answer the following

i Explain the environmental problems arising from the concentrated latex industries.
ii List out the factors affecting the performance of pond.

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State the working principle of centrifuge to prepare concentrated latex.

Q.3 (a) Discuss the concentrated latex production process with block diagram.

OR

Explain the given features of natural rubber waste water treatment:

ii

(b) Answer the following

(i)Pretreatment (ii)Primary Treatment

OR

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Q.4	(a)	List out the areas of loss of rubber content. How the latex factories with	07
		lower water consumption differ from those factories with higher	
		consumption	
	(b)	Answer the following	
	i	Write down the characteristics and applications of skim latex.	04
	ii	Write down the pond operation.	03
Q.5	(a)	With the labeled diagram, explain the types of aerators used with aerobic treatment units.	07
	(b)	Answer the following	
	i	Give the schematic representation of anaerobic decomposition of organic matter.	04
	ii	Explain the term 'acid formers'.	03
		OR	
Q.5	(a)	List out the types of aerobic treatment units. Explain any two.	07
	(b)	Answer the following	
	i	Write about the methods of maintaining and increasing the amount of	04
		biological solids in anaerobic reactor.	
	ii	Explain the term SRT with it's full form.	03
