GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-VII EXAMINATION – WINTER 2015

Subject Code: 171304 Date:04/12/2 Subject Name: Cleaner Production and Waste Utilization			
		10:30am to 1:00pmTotal Marks: 70	
Ins	tructio 1 2 3	Attempt all questions.Make suitable assumptions wherever necessary.	
Q.1	(a) (b)	Discuss six step methodology for CP with all 18 tasks in proper sequence. Discuss the concept of 4R's.	07 07
Q.2	(a) (b)	Write a short note to reuse the liquid industrial waste in the manner of CP. Write a short note on CP and Environmental Management System.	07 07
		OR	
	(b)	Discuss CP tools and briefly enlist CP tools to reduce the automobile pollution.	07
Q.3	(a) (b)	What is Good House Keeping? Explain the benefits of Good House Keeping. Enlist and explain the checklist of Good House Keeping.	07 07
		OR	
Q.3	(a) (b)	Give your views for successful implementation of CP. How energy management useful in CP.	07 07
Q.4	(a)	What is Energy Audit? Write the importance of Energy Audit.	07
	(b)	Enlist the methods of Energy Audit and explain any one.	07
		OR	
Q.4	(a)	Enlist the types of heat recovery boiler. Write a short note on any one with neat sketch.	07
	(b)	What is LMTD? Draw the temperature profile for counter and parallel flow.	07
Q.5	(a) (b)	Applications of CP in Pharmaceutical industry. How waste heat utilization is useful for the industry?	07 07
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Q.5	(a) (b)	Applications of CP in pulp and paper industry. Differentiate between direct and indirect heat recovery system.	07 07
