Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VII • EXAMINATION – SUMMER • 2015

Subject Code: 171304 **Date: 06/05/2015**
Subject Name: Cleaner Production and Waste Utilization
Time:02.30pm-05.00pm **Total Marks: 70**

Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	How cleaner Production is useful in Pollution prevention? Discuss in detail.	**07**
	(b)	Briefly explain the benefits of Cleaner Production.	**07**
Q.2	**(a)**	Discuss Six step methodology with details of 18 Tasks.	**07**
	(b)	Write a short note on Cleaner Production and Environmental Management System.	**07**
		OR	
	(b)	Discuss Different techniques which are not considered as CP options, but similar to CP.	**07**
Q.3	**(a)**	Applications of CP in Chemical Industry.	**07**
	(b)	What is Good House keeping? How it is important in cleaner Production?	**07**
		OR	
Q.3	**(a)**	Applications of CP in Pulp and Paper Industry.	**07**
	(b)	Discuss with respect to CP: (i) Technical feasibility (ii) Evolution of Environmental Aspects (iii) Economic Viability	**07**
Q.4	**(a)**	"Waste Heat Recovery is useful for prevention and control of pollution." Justify with example.	**07**
	(b)	Write short note on Heat Exchanger with neat sketch.	**07**
		OR	
Q.4	**(a)**	Discuss Energy Audit with respect to CP.	**07**
	(b)	Give your views for successful implementation of CP.	**07**
Q.5	**(a)**	Briefly explain heat recovery boiler with one stack with fan.	**07**
	(b)	Briefly explain heat recovery boiler with Two stacks without fan.	**07**
		OR	
Q.5	**(a)**	What is Log Mean Temperature Difference? Draw temperature profile for parallel and counter flow.	**07**
	(b)	Discuss sources of waste heat generated in different types of industries.	**07**

****