Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII • EXAMINATION – SUMMER • 2014

Su	bject (Code: 171304 Date: 31-05-2014	4
Tir	•	Name: Cleaner Production and Waste Utilization 2.30 pm - 05.00 pm Total Marks: 70 as:	0
	1. 2. 3.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Enlist benefits of Good Housekeeping. With special reference to dairy industry, cite the areas where Cleaner Production (CP) tools are useful.	07 07
Q.2	(a) (b)	Enumerate the benefits of cleaner production. Can we consider the following techniques, (i) waste treatment and (ii) diluting constituents to reduce hazard or toxicity, as CP option? – Justify your answer. OR	07 07
	(b)	Write a short note: CP methodology	07
Q.3	(a) (b)	Explain in detail: Barriers to cleaner production Enlist the objectives of Energy Audit. OR	07 07
Q.3	(a) (b)	Write a short note: Waste Heat Recovery Discuss barriers to Energy Conservation.	07 07
Q.4	(a) (b)	Enlist various CP tools and Explain any two in detail. With the help of a neat sketch explain Shell and Tube Heat Exchanger. OR	07 07
Q.4	(a)	What is LMTD? Give expression for finding LMTD for parallel and counter current flow.	07
o =	(b)	Write a short note: Recycling of Solid Industrial Waste.	07
Q.5	(a) (b)	Write a short note: Recycling and Reuse of Liquid Industrial Waste Explain in detail Energy Audit Methodology. OR	07 07
Q.5	(a) (b)	Write a short note: Methods of Good Housekeeping Define and explain in brief the concept of Recycling and Reuse.	07 07
