

GUJARAT TECHNOLOGICAL UNIVERSITY
ME Semester –I Examination Feb. - 2012

Subject code: 711605N**Date: 15/02/2012****Subject Name: Cleaner Production in Chemical Industries****Time: 10.30 am – 01.00 pm****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)	Explain in detail barriers and motivators in cleaner production.	07
	(b)	Discuss case study of CP in cement manufacture.	07
Q.2	(a)	Explain how CP and CT can act as remedies for mitigating climate change.	07
	(b)	Write short note on Energy Conservation in Thermal Power Plants.	
		OR	
	(b)	Suggest methods to improve the efficiency in thermal power plants.	07
Q.3	(a)	Discuss the six step methodology for CP.	07
	(b)	Write short note on Energy scenario in India.	07
		OR	
Q.3	(a)	Discuss Energy conservation via CP.	07
	(b)	Enlist CP tools. Discuss methodology and applications.	07
Q.4	(a)	Discuss cleaner production with due reference to wastewater minimization in Diethyl Malonate production.	07
	(b)	Write a brief note on Green Processes.	07
		OR	
Q.4	(a)	Explain the 3R concept.	07
	(b)	Explain principles and concept of green chemistry.	
Q.5	(a)	Write short note on good housekeeping.	07
	(b)	Write short note on clean fuels.	07
		OR	
Q.5	(a)	Discuss role of CP in sustainable development of chemical industries.	07
	(b)	Discuss role of bio-technology in cleaner production with a suitable case study.	
