GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-VII • EXAMINATION – WINTER • 2014		
Su	bject Code: 171301 Date: 25-11-2014	
	bject Name: Advance Waste Water Treatment Technology	
	me: 10:30 am - 01:00 pm Total Marks: 70	
Inst	tructions:	
	 Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 	
Q-1	(a) Enlist & Explain the Detail membrane bioreactor Configuration.	07
	(b) What is Adsorption? What are the Factors on Which Adsorption depends?	07
Q-2	(a) Enlist & Explain under which Circumstances, Advanced Waste Water treatment becomes necessary.	07
	(b) Write a short note on advanced oxidation process.	07
	OR (b) Write a chart note on Crevity Thickener	07
	(b) Write a short note on Gravity Thickener.	07
Q-3	(a) Write a short note on Ion Exchange Resins.	07
	(b) Highlight the importance of Adsorption Isotherms stating Their Applications. OR	07
Q-3	(a) With the help of neat Sketch Explain the concept of "RO" Electro Dialysis.	07
	(b) Enlist the Advantages & Disadvantages of "Ultra filtration" & "Microfiltration".	07
Q-4	(a) With the help of neat sketch Explain the Construction & working of any one Sludge Dewatering Equipment.	07
	(b) Differentiate Between (1) Maintenance Cleaning & Recovery Cleaning (2) Factor and MRR & Lawrence d MRR	07
	(2) External MBR & Immersed MBR OR	
Q-4	(a)Write a short note on Wet lands.	07
	(b) Explain the mechanism involved in the softening of Non carbonate hardness of magnesium.	07
Q-5	(a) Enlist the Different Processes for biological nitrogen removal & Explain any one(b) Discuss at least seven membrane process Terminology.OR	07 07
Q-5	(a)Explain the Chemical Precipitation methods for Phosphorus method	07
-	(b) With the help of neat sketch Explain the Process of Resin regeneration.	07

Seat No.: _____

Enrolment No._____
