Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER-II • EXAMINATION – SUMMER - 2017

Subject Code: 2723301 Date: 25/0 Subject Name: Groundwater Management Time: 02:30 PM To 05:00 PM Total Mark			25/05/2017	
		ks: 70		
Inst	2.	ns: Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q.1	(a)	What is Sea water intrusion? Discuss its affect on groundwater quality .Also discuss various remedial methods to control and prevent sea water intrusion.	07	
Q.2	(b) (a) (b)	Discuss various methods of groundwater investigations in brief. State various roles and responsibilities of Central Groundwater board. Discuss various considerations for the effective management of groundwater quality and groundwater quantity.	07 07 07	
	(b)	OR Discuss the terms groundwater hydrology and groundwater hydraulics with reference to groundwater management.	07	
Q.3	(a)	Discuss the terms radius of influence, SWL, drawdown curve, radius of well with neat sketch.	07	
	(b)	Justify the statement "Rainwater harvesting methods are essential tools for the groundwater management "with suitable example. OR	07	
Q.3	(a)	Define and differentiate the terms Aquifer, Aquiclude and Aquitard with neat sketch.	07	
Q.4	(b) (a)	Discuss about Confined and Perched Aquifer with neat sketch. What does artificial recharge mean? How it can be helpful to solve the issues of groundwater quality and groundwater quantity?	07 07	
	(b)	Write short note on: (1) Groundwater contaminant transport (2) Conjunctive use OR	07	
Q.4	(a)	Explain about following properties of aquifer: (1) Porosity (2) Specific Yield	07	
	(b)	Enlist and explain various remedial measures to control or eliminate the groundwater pollution.	07	
Q.5	(a) (b)	Signify the groundwater legislations in India. Write short note on: (1) Flow of ground water through porous media (2) Construction of Well. OR	07 07	
Q.5	(a) (b)	Discuss Continuity equation and Darcy's law under steady state conditions Write short note on: (1) Multiple well system (2) Pumping test	07 07	
