Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME – SEMESTER I (NEW) – • EXAMINATION – SUMMER 2016

Subject Code: 2713306 **Date:19/05/2016**

Subject Name: Water supply and drainage

Time:02:30 pm to 05:00 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)**	Describe the SCADA system alongwith its features and advantages.	**07**
	(b)	Explain the Hardy Cross Method to determine head loss in pipe distribution network with suitable example.	**07**
Q.2	**(a)**	What do you understand by "Prediction of Flood for Urban Storm Drainage" . How such predication can be done ?	**07**
	(b)	Enlist and explain various types of pipes used in water distribution system	**07**
		OR	
	(b)	Discuss ESR and its design features .	**07**
Q.3	**(a)**	Explain Various simulation features of EPANET in brief.	**07**
	(b)	Write Short note on : (1) Storm water Detention (2) Minimum cost design method of designing storm sewer	**07**
		OR	
Q.3	**(a)**	Signify the forecasting of population for the designing and planning water supply project alongwith discussion on various methods used for such forecasting.	**07**
	(b)	Explain various appurtenances used in water supply distribution.	**07**
Q.4	**(a)**	Describe "Urban Storm water modeling " in detail .	**07**
	(b)	Enlist and explain various factors kept in consideration for the feasibility study of water supply scheme.	**07**
		OR	
Q.4	**(a)**	Discuss the role of Service Reservoir and Balancing reservoir in detail.	**07**
	(b)	Enlist and explain various factors kept in consideration for the feasibility study of water treatment plant.	**07**
		OR	
Q.5	**(a)**	How do you see the prospect of designing the urban storm system in conjunction with recharge well in urban area ?	**07**
	(b)	Enlist and discuss various losses in pipes .	**07**
		OR	
Q.5	**(a)**	Write the function of (1) Intake Well (2) Storage sump	**07**
	(b)	Discuss the hydraulics of flow in open channel with its significance.	**07**

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