Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME SEMESTER – I (NEW) EXAMINATION – SUMMER 2017

Subject Code: 2713306 **Date: 11/05/2017**
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)**	Discuss the role of effective water supply distribution network and storm water drainage system in flood reduction.	**07**
	(b)	Enlist and explain various factors affecting cost estimating of small scale water supply scheme.	**07**
Q.2	**(a)**	Explain about planning of water supply scheme and its allied considerations.	**07**
	(b)	Describe the SCADA and its contribution for the implementation of effective water supply distribution scheme.	**07**
		OR	
	(b)	Explain the measures to be suggested for drainage issues in low lying area of urban area.	**07**
Q.3	**(a)**	Describe storm water management and stepwise storm water design process.	**07**
	(b)	Explain the terms detention basin and Intake well in detail.	**07**
		OR	
Q.3	**(a)**	Write short note on: (a) Service reservoir (b) Retention basin	**07**
	(b)	Enlist and explain various types of pipe material used with their advantages.	**07**
Q.4	**(a)**	Prepare a feasibility report on proposed water supply scheme with suitable assumptions and considerations.	**07**
	(b)	Discuss the role of computer softwares in planning and designing of water supply scheme.	**07**
		OR	
Q.4	**(a)**	Write short note on: (a) Balancing reservoir (b) Radial Collector well	**07**
	(b)	Describe about urban storm water modeling and its advantages.	**07**
Q.5	**(a)**	Enlist and explain various aspects and considerations of hydraulic design of storm sewer.	**07**
	(b)	Describe salient features of EPANET and its application for water supply distribution system	**07**
		OR	
Q.5	**(a)**	Describe about storage sump and losses in pipes in details.	**07**
	(b)	How groundwater management can be carried out in conjunction with urban storm water drainage system?	**07**

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