Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY BPLAN – SEMESTER 5 – • EXAMINATION – SUMMER 2017

Subject Code: 1055502 Date: 01/05/2017 Subject Name: Planning and Management of Utilities and Services Time: 02.30PM to 04.30PM Total Marks: 50

Instructions:

1. Attempt all questions.

- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.

Q.1	(a)	Give the description in brief of following (any five)	10
		1. Head gain	
		2. Waste treatment	
		3. Water Intake	
		4. Water runoff	
		5. Pumping mechanism	
		6. Information Education and Communication (IEC)	
		7. Gravity flow and Pressure flow	
Q.2	(a)	What are infrastructure utilities and services? Describe their importance in	05
		urban context	
	(b)	What is CPHEEO? Describe the importance of CPHEEO	05
		OR	
	(b)	Role of utilities and services in improvement of human health and environment	05
Q.3	(a)	Define Hydrology and Explain hydrological cycle	
	(b)	How rainfall data can be calculated for urban area?	05
		OR	
Q.3	(a)	Explain the various types of flow in piped supply networks	05
	(b)	What are the legal provisions against unauthorized littering?	05
Q.4	(a)	Explain Water Distribution System with schematic diagram	05
	(b)	What is hydrological gradient line (HGL) in water supply system	05
		OR	
Q.4	(a)	What are the components of solid waste management?	05
Q.1	(b)	Describe the importance of community participation in SWM.	05
	(6)	Describe the importance of community purvious in 8 WW.	00
Q.5	(a)	How sanitary network can be design for urban area?	05
	(b)	Innovative approaches of sewage disposal in urban area. Explain with examples	05
		OR	
Q.5	(a)	Critical assessment of sanitary landfill and its effect in urban area	05
~	(b)	Provide any best practices in India for Solid Waste Management	05
