Seat No.:	
No.	

GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-VII(OLD) • EXAMINATION – WINTER 2016

Sul	oject l	Code: 170602 Date: 21/11/2016 Name: Irrigation Engineering	
	ne: 1(ruction	0:30 AM to 01:00 PM Total Marks: 70	
mst		Attempt all questions. Make suitable assumptions wherever necessary.	
Q.1	(a) (b)	Explain benefits and ill effects of irrigation. Explain Drip irrigation with neat sketch.	07 07
Q.2	(a)(b)	Explain the terms: Gross command area, Culturable command area, Kor period, Base period. Explain waterlogging with its causes. Discuss its ill effects and give measures to prevent it.	07 07
	(b)	OR Discuss in brief Khosla's theory of design of weirs on permeable foundations.	07
Q.3	(a) (b)	Compare Kennedy's and Lacey's silt theory. Discuss briefly cross regulator and head regulator. OR	07 07
Q.3	(a) (b)	Explain Mitra's method of hyperbolic transition. Explain in brief canal escapes.	07 07
Q.4	(a) (b)	Explain the various component parts of a diversion headwork with neat sketch. Discuss various methods of assessment of irrigation water. OR	07 07
Q.4	(a) (b)	Discuss briefly various causes of failure of weirs and their remedies. Write short note on "Canal lining".	07 07
Q.5	(a) (b)	Explain the factors affecting duty. Also discuss the methods of improving duty. Write short note on "Canal falls".	07 07
0.5	6.3	OR	^ =
Q.5	(a) (b)	Explain with the help of neat sketches the various types of cross drainage works. Explain various methods of surface irrigation.	07 07
