

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VIII (OLD) EXAMINATION – WINTER 2018****Subject Code: 180606****Date: 29/11/2018****Subject Name: Irrigation Water Management****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) Give classification of surface irrigation and discuss any one in detail. **07**  
(b) How the saline land can be reclaimed? **07**
- Q.2** (a) Explain different irrigation efficiencies in detail. **07**  
(b) Compare drip irrigation and sprinkler irrigation. **07**
- OR**
- (b) Write short note on sub-surface irrigation. **07**
- Q.3** (a) Explain the design procedure for sprinkler irrigation system. **07**  
(b) What are the ill effects of water logging in irrigation? **07**
- OR**
- Q.3** (a) How the salinity in coastal area can be prevented? **07**  
(b) Define and explain irrigation scheduling. **07**
- Q.4** (a) Classify drainage systems with neat sketches. **07**  
(b) Draw a layout of drip irrigation system showing all components. **07**
- OR**
- Q.4** (a) Explain merits and demerits of water user's organization. **07**  
(b) What is frequency of irrigation? Explain the factors affecting frequency of irrigation. **07**
- Q.5** (a) Explain the design procedure for drip irrigation system. **07**  
(b) What are the problems occur from using poor quality irrigation water? **07**
- OR**
- Q.5** (a) Differentiate between border strip irrigation and check basin irrigation. **07**  
(b) Discuss the commonly used irrigation indices in irrigation scheduling **07**

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