

GUJARAT TECHNOLOGICAL UNIVERSITY**BE SEM-VIII Examination May 2012****Subject code: 180606****Subject Name: Irrigation water management****Date: 08/05/2012****Time: 10.30 am – 01.00 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) Classify the methods of surface irrigation and discuss any one in detail. **07**
(b) Discuss the causes of water logging. **07**

- Q.2** (a) What are the special field situations in which sub surface irrigation is suitable? **07**
(b) Discuss the applications of remote sensing in the field of irrigation. **07**

OR

- (b) What are the parameters in the design of furrow irrigation? **07**

- Q.3** (a) Compare drip irrigation and sprinkler irrigation. **07**
(b) Explain the design procedure for sprinkler irrigation system **07**

OR

- Q.3** (a) How the automation is achieved in drip irrigation? **07**
(b) What are the major factors influencing the design capacity of a drip irrigation system? **07**

- Q.4** (a) How the saline land can be reclaimed? **07**
(b) Discuss the commonly used irrigation indices in scheduling irrigation. **07**

OR

- Q.4** (a) Explain the design procedure for drip irrigation system. **07**
(b) How the salinity in the coastal area can be prevented? **07**

- Q.5** (a) Define and explain Irrigation Scheduling. **07**
(b) How will you calculate the amount of water required to be applied in irrigation? **07**

OR

- Q.5** (a) How does the soil moisture content influence evaporation from land surface? **07**
(b) Discuss the role of community participation in irrigation water management. **07**
