

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII EXAMINATION – SUMMER 2016****Subject Code:180606****Date:16/05/2016****Subject Name:Irrigation Water Management (Department Elective-II)****Time:10:30 AM to 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) Describe the causes of water logging. **07**
 (b) Explain with layout drip irrigation method. Also describe its advantages. **07**
- Q.2** (a) Enlist all efficiencies of irrigation and describe application and conveyance efficiencies. **07**
 (b) Explain border and check basin irrigation method. **07**
- OR**
- (b) Explain design procedure for sprinkler irrigation. **07**
- Q.3** (a) Explain measures for reclamation of saline land. **07**
 (b) The discharge from pump was 7500 liters per hour and work for 10 hours each day. Estimate area commanded by water pump if average depth of irrigation is 6.5 cm and irrigation interval is 7 days . **07**
- OR**
- Q.3** (a) Explain criteria for land leveling **07**
 (b) A stream of 265 liters per second was diverted from a canal and delivered to field 198 liters per second to field for 12 hours . The run off loss in field was 612 cu.m. calculate water conveyance and water application efficiency . **07**
- Q.4** (a) Describe irrigation scheduling **07**
 (b) Explain furrow irrigation method. also discuss design criteria for furrow irrigation **07**
- OR**
- Q.4** (a) Explain India's progress in field of water resources management **07**
 (b) Explain sub surface irrigation **07**
- Q.5** (a) Describe water users organization and its role in water management effectively **07**
 (b) Describe different type of sprinkler system accordingly to its portability **07**
- OR**
- Q.5** (a) What are the limitations of sprinkler irrigation? Describe it. **07**
 (b) Explain water requirements of crops . **07**
