

**ANNA UNIVERSITY OF TECHNOLOGY, COIMBATORE**  
**B.E. / B.TECH. DEGREE EXAMINATIONS : NOV / DEC 2011**

**REGULATIONS : 2008**

**FIFTH SEMESTER : CIVIL ENGINEERING**

**080100017 - IRRIGATION ENGINEERING**

**Time : 3 Hours**

**Max.Marks : 100**

**PART - A**

**(10 x 2 = 20 MARKS)**

**ANSWER ALL QUESTIONS**

1. Define base period and crop period of a crop.
2. What is field capacity and wilting point?
3. What are the classifications of sprinkler system?
4. What is lift irrigation? Name any two device used for lift irrigation.
5. What is gravity dam?
6. Distinguish between the Weir and Barrage.
7. What are cross drainage works?
8. Classify the river training works.
9. What do you mean by Participatory Irrigation Management?
10. What are percolation ponds?

**PART - B**

**(5 x 16 = 80 MARKS)**

**ANSWER ALL QUESTIONS**

11. (a)(i) Write the history of Irrigation projects in India and List the various Irrigation projects with reference to Tamilnadu. (8)
- (ii) Derive the relationship between duty and delta of crop. (8)

**(OR)**

11. (b)(i) Write the methods to improve the duty of crop. (8)
- (ii) Discuss in brief the direct measurement of consumptive use of water. (8)

12. (a) Describe the various methods of surface and subsurface irrigation.

**(OR)**

12. (b)(i) Describe in detail the sprinkler irrigation system. (8)
- (ii) Describe in detail the drip irrigation system. (8)

13. (a)(i) Discuss the different type and causes of failure of weir founded on previous foundation with a neat sketch. (8)

(ii) What are the merits and demerits of a gravity dam over the other types? (8)

**(OR)**

13. (b) Enumerate the different type and causes of failure of earthen dam with a neat sketch.

14. (a) Describe briefly the various classifications of canals.

**(OR)**

14. (b) Explain various types of river training works, using neat sketches.

15. (a)(i) What is meant by optimization? (4)

(ii) Describe the following with reference to water management.

(3 x 4)

1. Objectives of Water Management.
2. Role of Irrigation engineer and farmers
3. On Farm Development.

(OR)

15. (b)(i) Explain the need for interdisciplinary approach in irrigation management.

(8)

(ii) Explain performance evaluation with reference to water management.

(8)

\*\*\*\*\*THE END\*\*\*\*\*