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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(CE) (2011 Onwards) (Sem.-4)

IRRIGATION ENGINEERING-I

Subject Code : BTCE-405

Paper ID : [A1175]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A**Q.1 Write briefly :**

- a. List the various objectives of lining of canals.
 - b. Write short note on conjunctive use of surface and ground water.
 - c. Distinguish between Delta, duty and base period.
 - d. What is Inundation Canal.
 - e. List the various types of Canals.
 - f. In what situations lined canals are preferred.
 - g. Explain the factors affecting the requirements of water.
 - h. List the various types of river training works.
 - i. Why drainage is provided behind lining of canals.
 - j. Discuss the importance of alignment of canals.
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SECTION-B

- Q.2 Explain the drawbacks of Lacey's Theory.
- Q.3 What is Sprinkler irrigation? Describe briefly the component parts of Sprinkler irrigation system.
- Q.4 Discuss the factors affecting Seepage losses in irrigation channels. Also explain the two conditions of seepage from irrigation channels.
- Q.5 Explain the procedure of designing an irrigation channel, using Kennedy's theory, given Q, Kutter's N, m and S.
- Q.6 Discuss the classification of various types of tubewells.

SECTION-C

- Q.7 Discuss the stepwise procedure for the design of guide Banks.
- Q.8 Explain the procedure for the rehabilitation of tubewell.
- Q.9 Explain the following :
- a. Pitched Islands.
 - b. Economics of Irrigation Works.
 - c. Artificial Cutoffs.
 - d. Dupuit's Formula.