

M. Tech.-III (Civil-Hydraulic Engineering) (CBCS – 2015 Course) :
WINTER - 2018

SUBJECT: SELF-STUDY PAPER – I
WATER RESORUCES PLANNING & MANAGEMENT

Day: Saturday
Date: 08/12/2018

W-2018-3166

Time: 11.00 AM TO 02.00 PM
Max Marks.: 60

N.B. :

- 1) All questions are **COMPULSORY**
 - 2) Figures to the right indicate **FULL** marks
 - 3) Both sections should be written in **SEPARATE** answer books
 - 4) Figures may be drawn wherever necessary.
-

SECTION - I

- Q.1** Describe the major types of soils found in India (10)
OR
- Q.1** Explain the climatic variations observed over a typical year in India (10)
- Q.2** What is the need for scientific planning of water resources project? List out the normal priorities considered for planning of water resources project. (10)
OR
- Q.2** Explain the following terms with respect of water resources project (10)
(i) Microeconomics and Macroeconomics (ii) Profitability analysis
- Q.3** List and explain the criteria considered for optimal allocation of water for various uses. (10)
OR
- Q.3** What is meant by conjunctive use of water? Explain its merits and demerits. (10)

SECTION - II

- Q.4** Explain drip irrigation as a method of conservation of irrigation water. (10)
OR
- Q.4** Describe with sketches any four methods for artificial recharge of ground water in hilly areas. (10)
- Q.5** State and explain important parameters with respect to the quality of irrigation water. (10)
OR
- Q.5** Explain the environmental impact of large water storage reservoirs. (10)
- Q.6** Describe causes and ill-effect of water logging of irrigated areas (10)
OR
- Q.6** Describe any one method of reclamation of saline soils (10)

* * * * *