

**M. TECH.-III (CIVIL-HYDRAULIC ENGINEERING) (CBCS – 2015  
COURSE) : WINTER - 2017**

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

Day : **Thursday**  
Date : **25/01/2018**

**W-2017-2834**

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

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**N.B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Answers to both the sections should be written in **SEPARATE** answer books.
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**SECTION – I**

- Q.1 a)** Discuss the statement “water would be limiting factor in the future economic growth of country”. **[05]**  
**b)** Describe future irrigation potential of India. **[05]**

**OR**

- Q.1** What is the necessity of assessment of surface water resources of country? Explain in detail any one method of assessment. **[10]**

- Q.2** Describe the procedure of cost benefit analysis of water resources projects **[10]**

**OR**

- Q.2** Describe the procedure of assessment of economical feasibility of multipurpose water resources project. **[10]**

- Q.3** Discuss merits and demerits of conjunctive use of irrigation water. State the constraints in conjunctive use of irrigation water. **[10]**

**OR**

- Q.3** Discuss the various provisions of present National Water Policy with respect to equitable distribution of water resources of country. **[10]**

**SECTION – II**

- Q.4** Explain in detail means and limitations of augmentation of ground water resources. **[10]**

**OR**

- Q.4** Explain in detail any two techniques used for conservation of irrigation water. **[10]**

- Q.5** Describe in detail process of Environmental Impact Assessment of water resources projects. **[10]**

**OR**

- Q.5** State and explain in detail important parameters of quality of irrigation water. **[10]**

- Q.6** With the help of neat sketch explain various layouts of closed drains and state the conditions where each type is used. **[10]**

**OR**

- Q.6** Discuss nature and extent of salt problems in irrigated areas of India. **[10]**

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