

**M. TECH. CIVIL (WATER RESOURCE ENGINEERING)**  
**M. Tech. Civil (Water Resource Engineering) Sem-IV :SUMMER- 2022**  
**SUBJECT : SELF-STUDY PAPER-II:URBAN WATER MANAGEMENT**

Day : Wednesday  
Date : 15-06-2022

**S-23677-2022**

Time : 10:00 AM-01:00 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 sections should be written in **SAME** answer book.
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**SECTION - I**

**Q.1** Discuss physical, chemical and biological properties of water. **(10)**

**OR**

**Q.1** Draw flow chart of water treatment plant and state function of each unit of water treatment plant. **(10)**

**Q.2** List types of distribution network system and explain any one with neat sketch. **(10)**

**OR**

**Q.2** What is water demand? List and explain various factors affecting water demand. **(10)**

**Q.3** List different types of valves and state function of each valve with sketch. **(10)**

**OR**

**Q.3** Compare the advantages and disadvantages of pipes of different materials. **(10)**

**SECTION - II**

**Q.4** With neat sketch, explain functions of suction and delivery pipe. **(10)**

**OR**

**Q.4** Write a note on design of pumping station. **(10)**

**Q.5** With the help of neat labelled sketch, Explain water bearing strata. **(10)**

**OR**

**Q.5** Explain in detail cone of depression. **(10)**

**Q.6** List methods of boring and explain any one with neat sketch. **(10)**

**OR**

**Q.6** List components of well lining and explain each components in detail. **(10)**

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