

M.Sc. (Part-II) (Environmental Science) (CBCS Pattern) Semester-III  
**PSCENV T09 - Core Paper-IX : Water Treatment and Supply**

P. Pages : 1

Time : Three Hours



**GUG/S/25/11260**

Max. Marks : 80

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- Notes : 1. All questions are compulsory and carry equal marks.  
2. Illustrate the answers with suitable diagrams and examples.

**1.** Discuss chemical tests for examination of water. **16**

**OR**

- a) Explain sources of surface water supply. **8**  
b) Give impurities in present in water. **8**

**2.** Discuss horizontal and circular sedimentation tank. **16**

**OR**

- a) Explain theory of aeration. **8**  
b) Gives types and purpose of screens. **8**

**3.** Discuss forms of chlorination. **16**

**OR**

- a) Explain construction slow sand filter. **8**  
b) Describe theory of flocculation. **8**

**4.** Discuss classification of water distribution system. **16**

**OR**

- a) Describe dead-end system and grid iron system. **8**  
b) Explain displacement and centrifugal pumps. **8**

**5.** a) Give reasons for the analysis of water. **4**

b) Draw schematic layout of water treatment plant. **4**

c) Write short note on ultra-purification. **4**

d) Explain necessity of pumping. **4**

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