

**BACHELOR OF ARCHITECTURE (B.Arch.)**

**Term-End Examination**

00195

**December, 2014**

**BAR-049 : ARCHITECTURAL SCIENCES AND  
SERVICES – III**

**(WATER SUPPLY AND SANITATION)**

*Time : 3 hours*

*Maximum Marks : 70*

---

*Note : Part A is **compulsory**. Attempt any **three** from  
Part B. Supplement your answers with neat  
sketches.*

---

---

**PART A**

1. Explain 'Water Distribution Layout System' in a Residential Housing Complex. 14
  
2. Discuss Sewerage and Drainage Layout Systems in a multi-storeyed Residential Building and within the premise, with particular reference to sanitary fittings. 20

## PART B

3. Write short notes on any *four* of the following : 4×3=12
- (a) Ground water sources
  - (b) Evapotranspiration
  - (c) Sewage
  - (d) Non-scouring velocity
  - (e) Artesian well
  - (f) Sluice valve
4. (a) Discuss Hydrological cycle.
- (b) Discuss surface water pollutions. 8+4=12
5. (a) How do you lay out the Fire Water Demand Supply within a site and in the building ?
- (b) Explain Watershed Management. 8+4=12
6. (a) Write a short essay on 'Septic Tank'.
- (b) Which are the factors that need consideration for storm-sewer design ? 6+6=12
7. (a) Discuss Sewage Treatment Plant.
- (b) Discuss the various methods for conservation of water in urban areas. 4+8=12
-