

BACHELOR OF ARCHITECTURE (B.Arch.)**Term-End Examination****December, 2015****BAR-049 : ARCHITECTURAL SCIENCES AND
SERVICES – III****(WATER SUPPLY AND SANITATION)***Time : 3 hours**Maximum Marks : 70*

*Note : Attempt any **five** questions in total. Question no. 1 is **compulsory**. All questions carry equal marks.*

1. Write short notes on the following with neat sketches :

$$4 \times 3 \frac{1}{2} = 14$$

- (a) Building Sewer
- (b) Standards for Drinking Water Purity
- (c) P-trap and S-trap
- (d) COD (Chemical Oxygen Demand) and BOD (Biological Oxygen Demand)

2. A residence contains 4 bedrooms with toilets attached and a kitchen. Describe the water distribution from the water main with a sketch. 14
3. What are the different water sources ? Enumerate the treatment required for river water. 14
4. State briefly the basic principles governing the design of water supply in a building with particular reference to Fixture Units and Portable Flow Rate. 14
5. Explain the methods of refuse and garbage disposal. 14
6. How are plumbing systems tested for tightness ? Why do plumbing systems have traps ? Discuss the difference between intercepting sewer and outfall sewer. 14
7. Discuss green architectural services and practices with particular reference to Water Resource Conservation. 14