

BACHELOR OF ARCHITECTURE (B.Arch.)

Term-End Examination

00316

June, 2015

**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** questions from Part B. Supplement your answers with neat sketches.*

PART A

1. Discuss the Water Supply System layout in a multistoreyed Residential Building and within premise with particular reference to demand, layout of piping system and storage. 20
2. Explain the 'Drainage Layout System' in a Residential Housing Complex. 14

PART B

3. Write short notes on any *four* of the following: $4 \times 3 = 12$
- (a) Fire Water Demand
 - (b) Reciprocating Pump
 - (c) Sullage
 - (d) Watershed Management
 - (e) Invert Levels
 - (f) BOD
4. (a) Discuss Water Treatment Plant.
- (b) Which factors affect the 'choice of pipe materials'? $6 + 6 = 12$
5. (a) Elaborate the difference between 'intercepting sewer' and 'outfall sewer'.
- (b) Why are traps necessary for sanitary fittings? List the different types of traps. $6 + 6 = 12$
6. (a) Explain the use of 'Grease Trap' in sewer line.
- (b) What is a sludge pump? Discuss any two types of sludge pumps' working method. $4 + 8 = 12$
7. (a) Write a short note on Biogas Plant.
- (b) Discuss the various methods of urban water conservation. $4 + 8 = 12$