No. of Printed Pages : 3

BAR-049

00991

BACHELOR OF ARCHITECTURE

Term-End Examination

December, 2010

BAR-049 : ARCHITECTURAL SCIENCES & SERVICES - III (WATER SUPPLY AND SANITATION)

Time : 3 hours *Maximum Marks : 70*

Note : *This question paper consists of **two** parts. Part **A** is **compulsory**. Attempt **any three** questions from part **B**. Maximum Marks are shown against each question. Explain answers with the help of neat sketches, wherever required.*

PART - 'A'

1. What do you understand by the term : **2x5=10**

(a) Water Supply System

(b) Ground Water

(c) Potable Water

(d) Per capita Demand

(e) Sanitation

2. Write short notes on ***any four*** of the following : **2.5x4=10**

(a) pH Value of Water

(b) Inspection Chamber

(c) Sluice Valve

(d) Dry Weather Flow

(e) Gully Trap

3. Differentiate between ***any two*** of the following : **5x2=10**

(a) Intercepting Sewer and Outfall Sewer

(b) Vent Pipe and Antisiphonage Pipe

(c) Floor Trap and Gully Trap

(d) Supply Pipe and Distribution Pipe

4. Explain the reasons for ***any two*** of the following : **5x2=10**

(a) What role does sand gravel play in water filters ?

(b) Why turbidity in water is considered objectionable ?

(c) Why per capita consumption increases with increase in population ?

(d) Why is it necessary in present context to stress on rain water harvesting ?

PART - 'B'

5. State briefly the basic principles governing the design of water - supply in a building with particular reference to the quantity of flow, the determination of pipe sizes and the layout of the pipe system. **10**

6. Explain what is meant by sterlization of water. Enumerate various methods of application of chlorine for the sterlization of water and explain one method in detail. **10**

7. What do you understand by the term "biogas" ? Discuss the design criteria for setting up biogas plants along with different types of Biogas plant models in use. **10**

8. Discuss in brief, the sanitary fittings used in the drainage system of a building. **10**
