Roll No…….. **Total No. of Printed Pages: 1**
Total No. of Questions: 07

B. Architecture (Semester – 4th)
BUILDING SCIENCE & TECHNOLOGY- IV
Subject Code: BARC1427
Paper ID: [120123]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Question no. 1 is compulsory.
2. Attempt any four questions from Unit I, II & III, selecting at least one question from each unit.

Q1. Attempt the following (02 marks each)

a. Explain hydrological cycle in brief.
b. Give the per capita per day requirement of water in domestic, commercial and institutional building.
c. How many types of sewers are there? Enlist them.
d. Differentiate between one pipe and two pipe system of drainage in buildings.
e. What are the various sources of water?
f. Explain single stack system in brief.

Unit –I (12 marks each)

Q2. Explain various stages of treatment of water before its distribution for human consumption.

Q3. Explain the various types of water supply pipe materials along with their sizes and joining details. Also, explain the advantages as well as disadvantages of them.

Unit –II (12 marks each)

Q4. Explain in details various system of drainage in buildings along with their suitability in particular context. Also give advantages and disadvantages of each system in detail.

Q5. (a) Explain various methods of sewage collection along with their merits and demerits.
(b) Give the classification and characteristics of sewerage systems in detail.

Unit –III (12 marks each)

Q6. Explain the water supply system of a 3 bedroom house. Support your answer with details of appurtenance in the distribution system along with their sizes, joining details and materials?

Q7. Discuss in detail the design of septic tank. Also, discuss the disposal of septic tank effluent.