

The Assam Royal Global University, Guwahati

Royal School of Architecture

B.Arch., III Semester

Semester End Examination, December 2018

Course Title: Building Services I

Course Code: ARC132C317

Time: 3 Hours

Maximum Marks: 50

Note: Attempt all questions as per instructions given.

The figures in the right-hand margin indicate marks.

Section – A

- Q.1. Attempt all questions. - 2 x 8**
- a. What are the various factors to be considered for dependability of a source? Explain briefly. 2
 - b. Describe briefly about "Sources of water above ground". 2
 - c. What do you understand by "Recharge pits" and "Recharge Shafts". 2
 - d. What is meant by "flocculation" in water purification process? 2
 - e. Differentiate between Conservancy System and Water Carriage System. 2
 - f. Write short note on Cement Concrete Sewers. 2
 - g. Define "catch basins" or "catch pits" with neat sketch. 2
 - h. Explain briefly "Trenching" method of garbage disposal. 2

Section – B

- Q.2. Attempt any one question. 8 x 1**
- a. Describe in detail about "Chemical examination of water". 8
 - b. Describe Dead End Pattern in water supply. Give its advantages and disadvantages. 8
- Q.3. Attempt any one question. 8 x 1**
- a. Define combined sand, grease and oil trap with neat sketch. Explain its principle of working. 8
 - b. Discuss the components of typical manhole with neat sketches. 8
- Q.4. Attempt any one question. 9 x 1**
- a. Draw detailed plan and section of an overhead water tank (R.C.C) with following dimensions, 1.2m X 1.2m X 1.5m. Do proper labelling. 9
 - b. Write short note on pipes. Mention various sizes of pipes available in market and the market price of 9
 - 1 PVC Pipes
 - 2 Concrete Pipes

Q.5. Attempt any one question.

9 x 1

a. Explain following with neat sketches

9

1 Bowl type or basin type urinal

2 Bath tub

3 Single stack system

4 S - Trap

b. Explain following with neat sketches

9

1 Stall type or slab type urinal

2 Drinking fountain

3 One pipe system

4 Nahni trap