

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)**

**CLASS: B.ARCH
BRANCH: ARCHITECTURE**

**SEMESTER: IV
SESSION : SP/2020**

SUBJECT: AR251 BUILDING SERVICES - I (WATER SUPPLY AND SANITATION)

TIME: 2 HOURS

FULL MARKS: 25

INSTRUCTIONS:

1. The total marks of the questions are 25.
 2. Candidates may attempt for all 25 marks.
 3. Before attempting the question paper, be sure that you have got the correct question paper.
 4. The missing data, if any, may be assumed suitably.
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		CO	BL
Q1	(a) Give example of various sources of surface and ground water	[2] 1	Remember
Q1	(b) Describe the process of raw water treatment with the help of neat sketch	[3] 2	Understand
Q2	(a) Describe requirements of good water supply distribution system.	[2] 4	Understand and Apply
Q2	(b) List various layouts used in distribution network of water supply and differentiate between the dead end system and grid iron system.	[3] 5	Analyse and Evaluate
Q3	(a) Draw a neat section of Refuse Chutes in case of a high rise building.	[2] 4	Apply
Q3	(b) List at least six types of valve and describe functioning of drain valve.	[3] 2	Remember and Analyse
Q4	(a) Write advantages and disadvantages of following: <ul style="list-style-type: none">• Dead end system• Radial system	[2] 3	Evaluate
Q4	(b) Define Sewage	[3] 3	Remember
Q5	(a) Differentiate between inspection chamber and manhole	[2] 4	Analyse
Q5	(b) List various types of plumbing system for disposal of wastewater and evaluate sketch a single stack system with the help of neat sketch.	[3] 3	Evaluate and Remember

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