The Assam Royal Global University, Guwahati
Royal School of Engineering & Technology
B Tech (Civil Engineering) 7th Semester
Special Supplementary Examination, August 2024
Course Title: Plumbing & Water Supply
Course Code: CEE022G701

Time: 3 Hours

Maximum Marks: 70

Note: Attempt all questions as per instructions given.
The figures in the right-hand margin indicate marks.

Section – A

1. Attempt **all questions**. (Maximum word limit 50)   2 x 8

   a. Calculate the volume of a tank in litre if both radius and height of the tank are 1 m.
   b. List the different types of material in which plumbing fittings are available.
   c. What is the difference between a threaded joint and a welded joint.
   d. Define drain water outlet.
   e. What is flushing cistern?
   f. What is MSWP?
   g. What is a good installation system?
   h. What is dry repair?

Section – B

2. Attempt **any two** of the following: 6 x 2

   a. Define the plumbing system. Why is plumbing system necessary for all types of building?
   b. Describe the main components of a plumbing system?
   c. Illustrate the methods adopted for safe handling of the pipe cutter, pipe bending and drilling machines.

3. Attempt **any two** of the following: 7 x 2

   a. Describe the steps involved in laying pipes. List the precautions one should take during laying of pipes.
   b. Draw the *figures* of bends and reducing tees, and the *symbols* of bends and reducing tees.
   c. Why are joints necessary? Discuss joints in detail, with suitable figures.

4. Attempt **any two** of the following: 7 x 2

   a. Why do we use power tools? Discuss three important power tools used in plumbing.
   b. Differentiate between hand tools and power tools. Why do we use multi-tool?
   c. Explain the different fittings and its uses in the plumbing system.

5. Attempt **any two** of the following: 7 x 2

   a. Write down the important steps for the installation of plumbing fixtures.
   b. Explain the procedure of pipe joining.
   c. Discuss pipe corrosion. How can such a pipe be repaired.