

073105T4PLM

PLUMBING LEVEL 5

CON/OS/PL/CR/05/5

Install Water Storage Systems and Auxiliary Fittings

November/December 2025



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

WRITTEN ASSESSMENT

Time: 3 HOURS

INSTRUCTIONS TO CANDIDATE

1. This paper consists of **TWO** sections: **A** and **B**.
2. Answer **ALL** questions in section A and **THREE** (3) questions in section B.
3. Marks for each question are indicated in the brackets.
4. Candidates are provided with a separate answer booklet
5. Do not write on the question paper.

This paper consists of FOUR (4) printed pages
Candidates should check the question paper to ascertain that all
pages are printed as indicated and that no questions are missing.

SECTION A (40 MARKS)

Answer ALL the questions in this section.

1. Plumbing working drawing is a detailed, technical diagram that provides all the necessary information for a plumber to install a complete plumbing system. List FOUR benefits of using the plumbing working drawings. (4Marks)
2. During installation of the storage tank, a plumber needs to put essential auxiliary structures. State FOUR components of a water storage tank. (4Marks)
3. Storage tanks are very essential in every home during rainwater harvesting and distribution. Outline FOUR functions of a water storage tank. (4Marks)
4. When choosing a water storage tank, the material used is a critical consideration. List FOUR materials used to construct water tanks. (4Marks)
5. One form of maintenance is a response to a failure identified by a visual inspection or a test of the equipment. Outline FOUR maintenance practices for water tanks. (4Marks)
6. Water pollution particles pollute water, making it harmful to living organisms and unusable for drinking, cooking, or agriculture. State FOUR causes of contamination in water tank. (4Marks)
7. Steel tanks come in many different types. Outline FOUR types of steel tanks. (4Marks)
8. Plastic has become a dominant material in modern plumbing for both water supply and drainage systems, unlike traditional metal pipes. State FOUR advantages of using plastic water tanks. (4Marks)
9. Float valves are used in various residential, commercial, and industrial applications to monitor liquid levels. Outline FOUR of their functions. (4Marks)
10. Using electronic tank indicators over traditional mechanical indicators is a common practice. State FOUR uses of a level indicator in water tanks. (4Mark)

SECTION B (60 MARKS)

Answer THREE Questions in This Section

11. Preparing a Bill of Quantities for a water storage system is a crucial step before commencement of works.
- a. State FIVE key sections of a Bill of Quantities (10Marks)
 - b. Explain FIVE ways of helping prevent cost overruns. (10Marks)
12. There are number of important factors to consider when designing and building water storage tanks.
- a. Describe SIX main factors to consider when designing a water storage tank. (12 Marks)
 - b. Explain FOUR factors that affect tank size. (8 Marks)
13. A valve is a device that regulates, controls, or directs the flow of a fluid by opening, closing, or partially obstructing fluid flow.
- a. Describe FIVE types of valves used in water supply system. (10 Marks)
 - b. Explain FIVE types of plumbing fittings used plumbing works. (10 Marks)
14. A homeowner needs to select a pump to transfer water to his houses to higher elevation or at higher pressure.
- a. Explain FIVE criteria for Pump Selection for water supply. (10 Marks)
 - b. Describe TWO advantages on an elevated tank. (4 Marks)
 - c. Explain THREE types of tests carried out in water supply system. (6 Marks)