

073105T4PLM

PLUMBING LEVEL 5

CON/OS/PL/CR/05/5

Install Water Storage Systems and Auxiliary Fittings

July/August 2025



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

WRITTEN ASSESSMENT

TIME: 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. This paper has two sections **A** and **B**.
2. Answer **ALL** questions in section **A** and any **THREE** questions in section **B**.
3. You are provided with a separate answer booklet.
4. Marks for each question are as indicated.
5. Do not write on the question paper.



This paper consists of THREE (3) 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. Pipe fittings are important components of pipelines as they connect pipes and control pipe leakages. Identify the uses of the following.
 - a. Socket. (1 Mark)
 - b. Elbow. (1 Mark)
 - c. Tee. (1 Mark)
 - d. Union. (1 Mark)
2. Plastic tanks are majorly used for water storage in Kenya than metallic. List FOUR advantages of using plastic tanks. (4 Marks)
3. You have been hired to fix solar collectors. List TWO tools and TWO supplies you will require during installation. (4 Marks)
4. When you are installing a pump, you have to check the type of mouth of the outlet whether male or female. Differentiate between male and female thread. (4 Marks)
5. By installing water storage systems, a plumber is guided by drawings. State TWO benefits of project drawings when determining the location of storage systems. (2 Marks)
6. Commissioning the storage system involves a series of steps to ensure that it operates as intended and meets the client's requirements. Identify FOUR activities that you may carry out before commissioning. (4 Marks)
7. Storage systems are essential in building structures. State THREE locations they can be fitted. (3 Marks)
8. Different types of pipes are used to convey water from the reservoir to the storage tank. List FOUR types of pipes used in the connection. (4 Marks)
9. Maintaining tools and equipment is paramount for them to last longer. State FOUR ways of proper tool maintenance. (4 Marks)
10. Pumps are used to provide energy for water flow from one point to another. Give THREE types of pumps. (3 Marks)
11. Maintenance is a requirement for all plumbing appliances and fittings. Faults impact overall performance of a water storage system. State causes of the faults below.
 - a. Low and high pressure. (2 Marks)
 - b. Air locks. (1 Mark)
 - c. Leaks. (1 Mark)



SECTION B (60 MARKS)

Answer Any THREE Questions in This Section

12. Water storage tanks require proper support and stability to ensure longevity and safety.
- a. List FIVE factors to consider when providing support to tanks. (5 Marks)
 - b. State FIVE supports given to water storage tanks. (5 Marks)
 - c. Describe FIVE types of storage tanks and give one advantage for each. (10 Marks)
13. Water tanks are installed to high rise buildings as per the building code of plumbing works:
- a. Explain FOUR reasons for proper water tank installation on high rise building. (8 Marks)
 - b. Discuss FOUR challenges you might face while installing the tank. (8 Marks)
 - c. Explain TWO safety factors to consider during the installation. (4 Marks)
- 14.
- a. Pump failure refers to a condition where a water pump stops working properly. Explain FIVE reasons of a pump failure. (10 Marks)
 - b. Valves are important components in a water storage system in a residential building. Explain FIVE types of valves in relation to their uses. (10 Marks)
15. Safety and health practices are key consideration factors in a workshop:
- a. Explain FOUR reasons for maintaining a clean and organized workspace. (8 Marks)
 - b. Discuss THREE reasons why you should comply with OSHA regulations. (6 Marks)
 - c. Explain THREE measures you would implement to ensure a plumber is in a safe working environment. (6 Marks)

