

073204T4PLM

PLUMBING LEVEL 4

CON/OS/PL/CR/03/4/A

Install Drainage System

March/April 2025



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

Time: 2 HOURS

INSTRUCTIONS TO CANDIDATE

1. This paper consists of two sections; A and B
2. Answer ALL the questions in each section.
3. Marks for each question are indicated in the brackets
4. You are provided with a separate answer booklet to answer the questions
5. Do not write in this 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: (10 Marks)

Choose the correct answer from the choices provided in each question. Each is 1 mark.

1. _____ is not a type of drainage system.
 - A. Surface drainage
 - B. Subsurface drainage
 - C. Suspended drainage system
 - D. Storm water drainage
2. The following are types of fittings used by a plumber EXCEPT.
 - A. Elbow
 - B. Adaptor
 - C. Die stock
 - D. Socket
3. The following is a type of above the ground system EXCEPT.
 - A. Combined drainage system.
 - B. Single stack drainage system.
 - C. Two pipe drainage system.
 - D. One pipe drainage system
4. _____ is NOT a measuring tool.
 - A. Tape measure
 - B. Vanier calliper
 - C. Dumpy level
 - D. Steel rule
5. The following are safety and regulation observed when using workshop tools and equipment's EXCEPT.
 - A. use tools that are the right size & right type for your job.
 - B. wear the right safety equipment for the job.
 - C. follow the correct procedure for using every tool.
 - D. Work with OILY or GREASY hands

6. A plumber wanted to acquire materials for installing drainage system in a building. He prepared the schedule of all materials to get from the supplier. Which one is the main factor to consider when choosing the materials to work with.
- A. Friendship
 - B. Cost
 - C. Quality
 - D. Convenience
7. When you are asked for a piece of pipe so that it is 0.8 meter long. How many millimetres will this be.
- A. 8000mm
 - B. 8mm
 - C. 80mm
 - D. 800mm
8. The following can cause fire outbreak in a workshop Except.
- A. Solids
 - B. Flammable gases
 - C. Flammable liquids
 - D. Electrical
9. The following are properties of stainless-steel materials as use in drainage works Except.
- A. It has a clean, pleasant appearance.
 - B. It is non-corrosive.
 - C. It is hard wearing.
 - D. It is easy to cut
10. Identify the primary function of drainage system.
- A. To provide clean water
 - B. To remove excess water from an area.
 - C. To supply water for irrigation.
 - D. To generate electricity.

SECTION B:(40 MARKS)

Answer all questions in this section

11. Define the following terms as used in drainage: (3 marks)
- i. Working drawings
 - ii. Drain
 - iii. Measurement,
12. List THREE methods of drawing a pictorial drawing. (3 marks)
13. Define the term Pipe Schedules as used in drainage systems. (2 marks)
14. List THREE-general grouping/categories of polyethylene (PE) pipes. (3 marks)
15. Give FOUR disadvantages of plastic pipes. (4 marks)
16. Plastics pipes are commonly used in drainage works. List THREE plastics pipes commonly used (3 marks)
17. Give FOUR factors considered when selecting components and materials for pipes and fittings in drainage system installations. (4 marks)
18. Give FOUR safety measures would you observe when using plumbing tools and equipment. (4 marks)
19. James a plumber in Kenya wanted to change the direction of waste flow, List TWO drainage bends he required to perform the work. (2 marks)
20. State TWO methods of setting out drainage systems. (2 marks)
21. State THREE types of above ground drainage systems: (3 marks)
22. List TWO tests for underground drainages system. (2 marks)
23. Define the following terms as used in drainage system
- i. self-cleansing gradient
 - ii. benching
 - iii. invert level. (3 marks)
24. Explain the importance of ventilation for underground drainage systems. (2 marks)