

073204T4PLM

PLUMBING LEVEL 4

CON/OS/PL/CR/01/4/A

Install Water Pipes and Ancillary Appliances

Nov/Dec 2024



**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 question as guided in each section
3. Marks for each question are as 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)

Answer all questions in this section. Each question carries one mark

1. Dimensioning in a working drawing play a crucial role in coming up with any building.
What is the purpose of dimensioning in working drawing?
 - A. To indicate the aesthetic aspect of the design.
 - B. To show the location of the project site.
 - C. To specify the size and location.
 - D. To list materials used in construction.
2. To interpret a working drawing in plumbing, symbols, notations and standard conventions are used. Which of the following is used to interpret a working drawing in plumbing?
 - A. Scale rule.
 - B. Plumbing code book.
 - C. Pipe wrench.
 - D. Plunger.
3. Quantifying piping materials helps the plumber to carry out his work without any hindrance. As a plumber, why do you quantify piping materials and supplies?
 - A. To estimate the cost of the project.
 - B. To determine the required pipes sizes.
 - C. To calculate the number of fittings used.
 - D. To review the design.
4. Peter has just secured a job to install water supply pipes in a house. Which tool will he use to ensure that pipes are cut to the correct length?
 - A. Pipe wrench.
 - B. Pipe cutter.
 - C. Hacksaw.
 - D. Measuring tape.
5. Personal protective equipment is crucial for pipework assembly. Which of the following is NOT a recommended PPE?
 - A. Safety glasses.
 - B. Hand gloves.
 - C. Open leather shoes.

D. Respirators.

6. Fittings plays a crucial role during the installation of water pipes. Which type of fitting is used to connect two pipes at 90°?
- A. Union.
 - B. Elbow.
 - C. Reducer.
 - D. Tee.
7. Tom has decided to change the water line that serves his community. What should he do before connecting a new water pipe to an existing system?
- A. Insulate the pipe.
 - B. Increase the water pressure.
 - C. Flush the existing pipes to remove debris.
 - D. Remove the old pipe.
8. Valves are essential components in plumbing and fluid systems, designed to control the flow of fluids. Which type of valve is commonly used to control the flow of water in a plumbing system?
- A. Ball valve.
 - B. Check valve.
 - C. Gate valve.
 - D. Pressure relief valve.
9. Testing functionality of water pipes is a crucial process that involves various methods. The following are methods of testing a water supply system, which one is not?
- A. Smoke test.
 - B. Air test.
 - C. Paraffin test.
 - D. Water test.
10. Safety measures in plumbing are critical to protecting both workers and the integrity of the plumbing systems. Which of the following is an essential safety measure in plumbing?
- A. Wearing gloves.
 - B. Using a ladder.
 - C. Handling live electrical wire.

D. Ignoring warning signs.

SECTION B (40 MARKS)

Answer ALL questions in this section.

11. Maintaining a clean and organized working area is an important practice for proper housekeeping. Give THREE reasons why it is important to keep a clean and organized workshop. (3 Marks)
12. In a plumbing workshop, personal protective equipment is essential to safeguard plumbers from potential hazards and ensure their safety. List SIX personal protective equipment that a plumber should have in a plumbing workshop. (6 Marks)
13. Water supply is a critical aspect of infrastructure that ensures communities and households have access to clean and safe water. State TWO methods of supplying water to the households. (2 Marks)
14. Testing a water supply system is crucial to ensure its safety, functionality. Various methods are employed to assess the system. Explain TWO methods of testing the efficiency of water supply systems. (4 Marks)
15. A Direct water supply system is where water is delivered directly from the main supply to fixture and appliances. What are the FOUR advantages of using direct water supply systems? (4 Marks)
16. When working with pipes, it is essential to smooth out the rough edges left after cutting to ensure a proper fit. Which tool is used to debar the edges of cut pipes? (2 Marks)
17. Tools are important for performing a wide range of tasks, each designed to complete a specific function. State the FIVE classes of plumbing tools giving ONE examples in each. (10 Marks)
18. Pipe fittings play a main role in pipe work connection. What are the TWO main purposes of using pipe fittings in plumbing system? (2 Marks)
19. Valves are crucial components in a water system serving a key role. What is the function of a shut-off valve in a water system? (2 Marks)
20. Plumbers often encounter a range of health and safety challenges in their line of work which can impact their well-being and job performance. What are FIVE health safety issues that plumbers commonly face? (5 Marks)

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