

073203T4PLM

PLUMBER LEVEL 3

CON/OS/PL/CR/01/3/A

INSTALL PIPES IN BUILDINGS

NOV /DEC 2023



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

WRITTEN ASSESSMENT

TIME:2 HOURS

INSTRUCTIONS TO CANDIDATE

- i. This paper has two sections **A** and **B**. Attempt questions in each section as per instructions given in the section.
- ii. You are provided with a separate answer booklet.
- iii. Marks for each question are indicated in the brackets.
- iv. Do not write on the question paper
- v. All answers should be written in English

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 (20 MARKS)

Answer all the questions in this section, each question carries 1 mark

Indicate True or False in question 1 to 5

1. Interpreting the working drawing is only required for complex plumbing installations.
2. Using proper tools and equipment ensures that pipes are installed correctly, minimizing the chances of leaks or failures.
3. Interpreting the working drawing is not necessary for installing pipes in buildings.
4. Using improper tools and equipment is acceptable as long as the task gets completed.
5. Accurate quantification of supplies and materials minimizes wastage and additional costs.

Match the following pipe fitting types with their functions

6.	Elbow	i. Allows for easy disassembly and reassembly of pipes
7.	Tee	ii. Joins two pipes together
8.	Union	iii. Used for intersecting pipe connections
9.	Coupling	iv. Used to create a branch in a plumbing system
10.	Cross	v. Used to change the direction of a pipe

Choose the correct answer from the choices given in brackets

11. When interpreting a working drawing, what does the abbreviation "DWV" commonly refer to?
 - A. Drinking Water Valve
 - B. Drain, Waste, and Vent
 - C. Diameter of Water Vessel
 - D. Domestic Water Ventilation
12. Which type of wrench is commonly used to tighten and loosen pipe fittings?
 - A. Adjustable wrench
 - B. Socket wrench
 - C. Pipe wrench
 - D. Torque wrench
13. Choose the correct tool typically used to measure the diameter of pipes accurately?
 - A. Vernier caliper
 - B. Tape measure
 - C. Level
 - D. Plumb bob
14. Which of the following is a commonly used method to join plastic pipes together?
 - A. Soldering

- B. Brazing
 - C. Welding
 - D. Solvent cementing
15. What is the purpose of a P-trap in a plumbing system?
- A. To provide structural support to pipes
 - B. To regulate water pressure
 - C. To prevent sewer gases from entering the building
 - D. To increase water flow rate
16. Which of the following is essential safety measure in plumbing?
- A. Wearing gloves
 - B. Using a ladder
 - C. Handling live electrical wires
 - D. Ignoring warning signs
17. The following tests are used to check leakage in a pipe, which one is not?
- A. Water test
 - B. Paraffin test
 - C. Smoke test
 - D. Air test
18. Which of the following is used to measure the length of plumbing pipe?
- A. Scale rule
 - B. Plumbing book code
 - C. Pipe wrench
 - D. Plunger
19. Which one is NOT the purpose of quantifying piping materials and supplies in plumbing?
- A. To estimate the cost of the project
 - B. To determine the required pipe sizes
 - C. To calculate the number of fittings needed
 - D. To determine the colour of the materials
20. What is the purpose of using thread seal tape when assembling pipe connections?
- A. To reduce water pressure
 - B. To reduce pipe corrosion
 - C. To prevent water leakages
 - D. To improve pipe insulations

SECTION B (30 MARKS)

Attempt all the questions in this section

21. List three information that can be found on a plumbing working drawing. (3 marks)
22. List two effects for wrong interpretation of working drawing in plumbing installation. (2 marks)
23. Identify three safety precautions that should be while installing pipes in building. (3 marks)
24. State three disadvantages of inaccurate quantification of supplies and materials in a plumbing project. (3 marks)
25. Give two effects of incorrect pipe fitting in plumbing system. (2 marks)
26. List three reasons for correct using of drawing specifications when fitting pipes? (3 marks)
27. Select three key elements that should be examined when interpreting a plumbing working drawing? (3 marks)
28. State four factors that should be considered when quantifying supplies and materials for a plumbing project? (4 marks)
29. Identify two importance of fitting pipes according to drawing specifications in plumbing installations. (2 marks)
30. State three roles of pipe supports in plumbing installations. (3 marks)
31. Select two health and safety issues that plumbers face in the field? (2 marks)