

073203T3PLM

PLUMBING LEVEL 3

CON/OS/PL/CR/04/3

Maintain Plumbing Systems

July/ August 2023



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

WRITTEN ASSESSMENT

Time: 2 hours

INSTRUCTIONS TO CANDIDATES

1. This paper has two sections **A** and **B**. Attempt questions in each section as per instructions given in the section.
2. You are provided with a separate answer booklet.
3. Marks for each question are indicated in the brackets.
4. Do not write on the question paper.

This paper consists of FIVE (5) 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 questions in this section. Each question carries 1 mark.

TRUE/ FALSE QUESTIONS

1. Gate valve is preferred over globe valve where the resistance to the water flow is to be kept at the minimum
 - A. True
 - B. false
2. There are various components of a storage tank and they include outlet pipe, inlet pipe, overflow pipe, ball valve, scour pipe, etc. A ball valve is used to clean the tank periodically.
 - A. True
 - B. False
3. Back Flow Preventer prevents gases from entering a home or building?
 - A. True
 - B. False
4. A Percolation test is used to determine the absorption rate and qualities of soil for a septic drain field or leaching field a. Percolation test
 - A. True
 - B. False
5. Teflon tape is a kind of tape that a plumber uses for repair and maintenance.
 - A. True
 - B. False
6. Cutting operation is one of the tasks is done in housekeeping?
 - A. True
 - B. False
7. Worn out bolts is one of the causes of a shaky toilet
 - A. True
 - B. False
8. Force Cup is mainly used for removing blockages.
 - A. True
 - B. False
9. Normally, the diameter of tailpiece for a bathroom sink is usually $\frac{3}{4}$ "
 - A. True
 - B. False
10. Pressure relief valve is provided at intervals in long mains to prevent hack pressure on the pump and in raising lines to prevent backflow of water?
 - A. True
 - B. False

MULTIPLE CHOICE QUESTIONS

11. Your kitchen faucet is dripping from the spout. What should you fix?
- A. Change the whole faucet
 - B. Change the faucet stems (valves)
 - C. Change the washers (or seats/springs if washer less type)
 - D. Change the O-rings in the spout
12. What causes loud noise in the tap when turned on?
- A. Spindle bend.
 - B. Spindle washer.
 - C. Loose valve on the spindle.
 - D. Spindle thread worn out.
13. What causes water flowing from a tap even when firmly closed?
- A. Spindle bend.
 - B. Spindle thread worn out.
 - C. Defective washer.
 - D. Loose valve on the spindle.
14. When faced with a dripping faucet, and it is the older type (rubber washers and screw in seats), you take it apart to see the washer is ripped up some, but still intact. How do you tackle this problem?
- A. Change the seat, only
 - B. Change both the washer and seat
 - C. Flip the washer around so the "good side" is showing
 - D. Tighten down on the seat
15. How do you detect water leaks in the bathroom, since most of the pipes are inside the wall?
- A. Soft spots and discoloration on the wall
 - B. Breaking the wall to see
 - C. Checking the water line leading to the bathroom
 - D. Check seals and grout around the sink

16. When an injury occurs, how soon should it be treated?
- A. After class hours
 - B. Immediately
 - C. After going to the hospital
 - D. Later
17. What is the first step taken when a pipe bursts?
- A. Turn off the electricity to the affected region of your home
 - B. Check safety first
 - C. Assess the burst and the surrounding area to the best of your ability
 - D. Take photographs of the damage
18. Naomi noted that with her toilet, she had to flush it at least twice or thrice which was a very rare circumstance. what could be one of the problems.
- A. Low water level inside the tank
 - B. Pipe leakage
 - C. Insufficient water supply
 - D. Low water pressure
19. What could be the causes of smelly toilet
- A. Worn out bolts
 - B. When the toilet dish is so old
 - C. If its clogged
 - D. Poor drainage system
20. All of the following would make water not get in into a water closet cistern except one. Which one is it?
- A. Blockages
 - B. Low pressure
 - C. Water hammer
 - D. High volumes of water in the plumbing system

SECTION B (30 MARKS)

Answer all questions in this section

21. In relation to plumbing
- a. What is an airlock? (1 Mark)
 - b. How can you remove it? (2 Marks)
22. How does a plumber ensure eye safety when fixing pipes on a building? (2 Marks)
23. State THREE main aims of maintaining a good plumbing system? (3 Marks)
24. List THREE waterproofing materials you would use to correct a leaking elbow? (3 Marks)
25. Outline FOUR common types of plumbing tools used during plumbing in maintenance (4 Marks)
26. When carrying out plumbing works:
- a. A PVC pipe bursts in a bathroom after fixing. As a plumber, what will do? (2 Marks)
 - b. Explain THREE precautions one should observe in a bathroom to have minimal plumbing maintenance? (3 Marks)
27. How does a stop-cock work? (1 Mark)
28. Highlight THREE common health and safety risks that a plumber faces while maintaining a plumbing system in a building? (3 Marks)
29. Explain TWO precautions one should observe in a bathroom to have minimal plumbing maintenance? (3 Marks)
30. Mention TWO reasons why pipes clog? (2 Marks)
31. What is the importance of applying Teflon tape in a threaded part? (1 Mark)