

073105T4PLM

PLUMBING LEVEL 5

CON/OS/PL/CR/07/5

Install Fire Control Systems

November/December 2025



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

WRITTEN ASSESSMENT

Time: 3 HOURS

INSTRUCTIONS TO CANDIDATE

1. This paper consists of **TWO** sections: **A** and **B**.
2. Answer **ALL** questions in section A and **THREE** (3) questions in section B.
3. Marks for each question are indicated in the brackets.
4. Candidates are provided with a separate answer booklet
5. Do not write on the question paper.

This paper consists of THREE 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)

Attempt ALL the questions in this section.

1. Alarm is an important element in fire installation. State the purpose of the alarm port on a wet system alarm valve. (1 Mark)
2. Visual defects would be necessitating the immediate replacement of a sprinkler head. Name FOUR visual defects. (4 Marks)
3. Costing depends on both economic and technical factors. State FOUR factors affecting cost of fire system materials. (3 marks)
4. A plumber used specialized tools during installation. Name THREE specialized tools required for preparing steel pipe for a grooved mechanical coupling system. (3 Marks)
5. Proper sprinkler installation ensures safety. List FOUR components of a sprinkler system. (4 Marks)
6. A plumber had two clients, one of the clients requested for a riser diagram while the other required a floor plan, as an expert how did a riser diagram differ from a floor plan in a fire protection drawing set. (4 Marks)
7. A plumbing drawing must include a comprehensive legend. List FOUR essential symbols that must be included in a legend. (4 Marks)
8. Fire outbreak nowadays are becoming popular. List FOUR main types of fire suppression systems. (4 Marks)
9. After long use of fire suppression system, a client discovered they contain dust. List THREE advantages of using a clean agent fire suppression system. (3Marks)
10. A plumber was required to prepare a working drawing for his client and required pieces of information in order to complete his task. List FOUR critical pieces of information he needed to include on the working drawing for a wet pipe sprinkler system. (4 Marks)
11. Wet risers are the most installed fire system in buildings List THREE fundamental components of a wet riser installation. (3 marks)
12. Tools enable correct and secure installation. Mention TWO safety measures during hose reel installation. (2 Marks)

SECTION B (60 MARKS)

Attempt THREE Questions in This Section

13. (a) Explain FIVE components of an annual service and maintenance schedule for a standard wet pipe sprinkler system. For each main task, explain the reason why it is performed. (10 marks)
- (b) Compare and contrast the installation requirements for a wet riser and a dry riser in a high-rise building. (10 marks)
14. (a) A plumber needs to install a branch line of sprinklers to a client. Describe FIVE steps of correct installation of a branch line of sprinklers. (10 marks)
- (b) Outline FIVE common installation faults in sprinkler systems giving their remedies (10 Marks)
- 15.
- a) James noted that his hose reel had some leakages and required the services of a plumber; identify FIVE common causes that he noted and how he rectified them. (10 marks)
- b) Describe FIVE common problems found during fire system inspections and how to address them. (10 marks)
16. (a) Describe FIVE safety considerations when installing hose reel systems. (10 marks)
- (b) Explain FIVE the role of pressure regulators in sprinkler systems. 10 marks)