



OCCUPATIONAL CERTIFICATE: WATER RETICULATION PRACTITIONER

SAQA ID: 102581 – NQF LEVEL 4

STUDENT GUIDE: MODULE 3

MODULE 3: 642605001-KM-03: TOOLS, EQUIPMENT AND ELECTRONIC DEVICES

3.1. Overview

Code	Topic	Percentage
KM-03-KT01	<p>HAND, MECHANICAL, ELECTRICAL, HYDRAULIC AND PNEUMATIC TOOLS, AND EQUIPMENT</p> <p>KT0101 – Types, uses and care of mechanical tools and equipment.</p> <p>KT0102 – Types, uses and care of electrical tools and equipment.</p> <p>KT0103 – Types, uses and care of hydraulic tools and equipment.</p> <p>KT0104 – Types, uses and care of pneumatic tools and equipment.</p> <p>KT0105 – Types, uses and care for hand tools.</p> <p>KT0106 – PPE</p> <p>KT0107 – Construction and operating principles of mechanical, electrical, hydraulic, and pneumatic tools and equipment and electronic devices</p> <p>KT0108 – Care and maintenance of mechanical, electrical, hydraulic, and pneumatic tools and equipment and electronic devices</p>	60%
KM-03-KT02	<p>ELECTRONIC DEVICES</p> <p>KT0201 – Inductors and transformers</p> <p>KT0202 – Electronic test equipment such as multi-meters and oscilloscopes</p> <p>KT0203 – Leak detection and pipe location equipment</p>	15%
KM-03-KT03	<p>WORKING WITH ELECTRICITY AND ELECTRICAL TOOLS</p> <p>KT0301 – Units of electricity</p> <p>KT0302 – Safety principles when working with electricity and electrical tools and equipment.</p> <p>KT0303 – Electrical lockout</p>	25%

3.2. Learning outcomes

Module	Learning Outcomes
KM-03-KT01	<ul style="list-style-type: none"> ▪ Identify mechanical tools and describe their purposes and uses. ▪ Identify electrical tools and describe their purposes and uses. ▪ Identify electronic devices and describe their purposes and uses. ▪ Identify hydraulic tools and describe their purposes and uses ▪ Identify pneumatic tools and describe their purposes and uses. ▪ Identify hand tools and describe their purposes and uses. ▪ Describe the operating principles of mechanical, electrical, hydraulic, and pneumatic tools and equipment and electronic devices. ▪ Describe the methods of cleaning, checking, and storing mechanical, electrical, hydraulic, and pneumatic tools and equipment. ▪ Describe the potential hazards associated with mechanical, electrical, hydraulic, and pneumatic tools and equipment
KM-03-KT02	<ul style="list-style-type: none"> ▪ Identify types of inductors and transformers and describe their functions. ▪ Identify electronic test equipment and describe their uses. ▪ Identify types of inductors and transformers and describe their functions. ▪ Describe how to safely use and care for electronic equipment and electronic test equipment
KM-03-KT03	<ul style="list-style-type: none"> ▪ Explain the units of electricity. ▪ Explain the safety principles when working with electricity and electrical tools and equipment. ▪ Explain the principles of electrical lockout