Water Business College

OCCUPATIONAL CERTIFICATE: WATER RETICULATION PRACTITIONER

SAQA ID: 102581 – NQF LEVEL 4

MODULE 7

Module 7 - Module Information

Module	Learning outcomes
KM-07-KT01	• Explain the aspects related to routing pipes • Describe the procedures for routing pipes • Describe the procedures for preparing trench sub-grade and base for pipe installation • Describe the procedures for preparing the bedding on rocky ground and sandy or soft ground • Describe the procedures for laying a pipeline • Describe the procedures for special laying conditions • Describe the procedures for anchoring a pipeline using anchor blocks and thrust walls • Describe the procedures for inspecting, testing, and disinfecting the system • Identify and describe suitable and unsuitable material for backfilling • Describe the procedures to perform initial and final backfilling and compaction • Describe some general-purpose concrete mixes • Identify and describe a basic bricklayer's toolkit • Describe basic brick laying techniques • Describe how manholes and chambers are constructed • Explain what is meant by buried-pipe considerations when different pipe materials are used • Describe air locks and water hammers and how to deal with them • Explain the importance of rehabilitating the area and describe how this is done • Identify and describe the PPE requirement for pipe-laying • List the information on a site drawing

KM-07-KT02	• Identify and describe the various types of valves used in water reticulation systems • List the main components of valves • Identify and describe the various types of actuators that are fitted to valves in water reticulation systems • Describe how actuators work and why they are fitted to valves • Describe the storage and handling procedures for valves and actuators • Identify the positioning of air valves and scour valves and give reasons for their location • Describe the functions performed by air valves
KM-07-KT03	• Identify and describe the different types of water meters • Explain the working principles of water meters • Explain the measuring principles of water meters • Describe meter readings techniques • Explain the application of different types of water meters in accordance with specifications and purpose • Describe the storage and handling procedures for water meters • Calculate meter flowrate and volume • Explain the method of checking bulk and zonal meter sequences against flow diagrams • Explain the method of identifying and locating bulk and zonal meters on a site drawing • List the information to be recorded when a water meter is changed • List the information to be recorded when reporting on the condition of a meter • List the aspects that must be recorded when reading bulk meters • Describe data loggers and the process of data logging • List the aspects that must be recorded when reading bulk meters

KM-07-KT04	• Explain the general terminology associated with pumps • Explain the purpose of pumps • Identify and describe the types of pumps in water reticulation systems and state where they are best used • Identify and describe the elements and components of pumps • Describe the procedures for operating pumps
KM-07-KT05	• Explain the main causes of corrosion in water reticulation systems • Explain the most appropriate corrosion control method in one area of work and give reasons for choice of method • Describe how corrosion on pipes can be identified and recommend appropriate action