



EXAMINATION CONTENT OUTLINES

CERTIFIED WATER ANALYST (CWA)

KSAs Code	Test Content Area(s)	Number of Questions (100)
1.	Physical, chemical, microbiological properties, parameters and basic processes regarding water and wastewater samples.	5
2.	Methods and principles of qualitative, quantitative and microbiological analyses of water and wastewater samples.	5
3.	1) Basic principles and uses of basic and high precision laboratory equipment for analysis of water and wastewater, including the routine calibration and maintenance of these equipment; including conducting routine calibration of externally-calibrated laboratory equipment to ensure their continuous accuracy and traceability. 2) Recommend or implement corrective action for analytical/instrumentation procedures (i.e. troubleshoot as appropriate and necessary).	20
4.	1) Carry out analysis of water and wastewater samples with little supervision; 2) Perform physical, chemical and microbiological analyses of water and wastewater samples.	40
5.	Relevant and applicable up-to-date International and national standards and regulations (Appendix 1) regarding water and wastewater.	5
6.	Proper chemical/toxicological management within a laboratory including occupational hazards, standard safety practices and good laboratory practices.	5
7.	Evaluate, interpret, and apply the results of laboratory testing, including advanced laboratory calculations, use of statistical tools/computer packages. Uncertainties in measurements.	15
8.	1) Establish and maintain good interpersonal and effective working relationships with superiors and supervision of subordinates; 2) Supervise, train and evaluate the activities/performance of subordinates.	5



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Appendix 1: INTERNATIONAL AND NATIONAL WATER STANDARDS AND REGULATIONS FOR CWA

1. National Environmental (Surface and Groundwater Quality Control) Regulations, 2010. S. I. No. 22.
2. NIS 554:2015; Nigerian Standard for drinking water quality
3. Nigerian Industrial Standards for Natural Mineral Water - NIS 345: 2008
4. Nigerian Industrial Standards for Potable Water – NIS 306: 2008
5. EPA Water Quality Standards, 2017
6. World Health Organisation Guideline for Water Quality
7. European Union 2018 Drinking Water Directive
8. Federal Ministry of Environment) (2001) Guidelines and Standards for Water Quality in Nigerian Publication.
9. EGASPIN, Department of Petroleum Resources, Nigeria.