



GOVT. DEGREE COLLEGE BODHAN

Affiliated to Telangana University

Accredited with 'B' grade by NAAC

Rakasipet, Bodhan, Dist Nizamabad, Telangana 503185

Website : <https://gdcts.cgg.gov.in/bodhan.edu> Email : gdcbodhan@gmail.com

CERTIFICATE COURSE IN WATER ANALYSIS 2021-22

Organised By	: Department of Chemistry
Instructor for the programme	: S. Ranga Rathnam Asst Prof of Chemistry
Objectives	: To acquire skills for routine analysis of water To improve working ability in analytical laboratory
Course Duration	: 30 DAYS (15 Theory Hrs + 15 Practical Hrs)
Eligibility for Admission	: Any B.Sc. BZC student
Medium of Instruction	: English

Theme of the Programme:

This certificate course in Water Analysis is useful for obtaining good analytical laboratory skills. The students can get opportunities in the field of analysis, analytical research, fundamental research, quality control departments, governmental and non-governmental organizations etc.

Syllabus : Theory

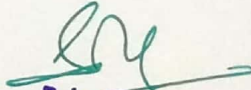
1. Analytical Chemistry, Titrimetric, gravimetric, instrumental analysis
2. Fundamentals in sampling methods, Preparation of reagents
3. Chemical measurements & Concentration calculations
4. Instrumentation Techniques – Conductometry, Potentiometry and pH
5. Chemical methods for Water Analysis
6. Waste water treatment plant types and quality control
7. Water pollution causes and remedies

Syllabus : Practicals

1. Determination of PH and Electrical Conductivity of water.
2. Determination of Alkalinity.
3. Determination of Hardness (Total, Permanent & Temporary).
4. Determination of calcium & Magnesium.
5. Determination of Carbonates & Bi-carbonates.
6. Determination of Chemical Oxygen demand (COD) Biochemical Oxygen Demand (BOD)

Reference Books

1. Basic concepts of analytical chemistry By S. M. Khopkar.
2. Basic laboratory studies in college chemistry By herd & Nebergali.
3. Instrumental methods of analysis By Dr. B. K. Sharma
4. Manual of water & waste water analysis, NEERI, Nagpur
5. Text book of water and waste water engineering by H. K. Hussen


Principal
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