Best Practice

Title of the Practice: Water Quality Analysis

Aims and Objectives:

- To encourage the students to involve and participate in group activities.
- To impart subject matter with hands on experience
- To inculcate the habit of research
- To bring awareness among the students about their social responsibilities
- To motivate students to know the quality of water and make others aware of it.
- To inculcate the spirit of active participation in social service activities

The Context:

All living organisms need water for their survival on earth that is why it is said that water is life. As its quality has great impact on the health of the society, the students were encouraged and assigned the task of analyzing the water quality parameters so as to educate and make aware the public about the water quality and adverse effects of consuming low quality water. In this activity students utilized the laboratory equipments and facilities for analyzing the water samples.

The Practice:

- Final year students were divided into three groups. Nizamabad district was selected for the analysis.
- A detailed schedule of the activity including the list of students, the villages/ Municipalities to be visited, sites of water sample collection, allotted responsibilities to the students, dates for analysis were displayed on the notice board of the department.
- Water collection was done not only from the municipal taps but also from the bore well; the mineral water plants and the RO water purifier of the college.
- Students were given demonstration to use the water analysis instruments and kits.

- Each group was assigned the work of analyzing the water quality parameters of one type of water collected from different areas.
- To test the water quality physical and chemical methods were used and tabulation of the data was done.
- Following the prescribed standard optimum level of the different parameters, students drew conclusion on the quality of water of various areas of the study.

The Evidences:

Table –Physico-chemical analysis of water samples

Sample Type	WATER TEMP	TDS	EC	PH	DO	TA	CHLORIDE	TH	CALCIUM	MG	NITRATES	PHOSPATES	SULPHATES	BOD	COD
MUNCIPAL TAP WATER	28	412	589	74	62	166	59	143	40	12	14	0.2	9.5	3.6	11.3
BORE WATER	24	400	600	72	60	159	52	140	38	10	14.2	0.32	9	2.8	10
MINERAL WATER	25	389	629	69	63	155	50	152	37	10.2	13.8	0.28	9.2	2.8	10.2
RO PURIFIER WATER	26	343	632	68	64	150	57	147	36	108	12.9	0.29	8	2.6	10

Note: All values are in mg/L except PH ,Temperature -°c and EC-µs/cm

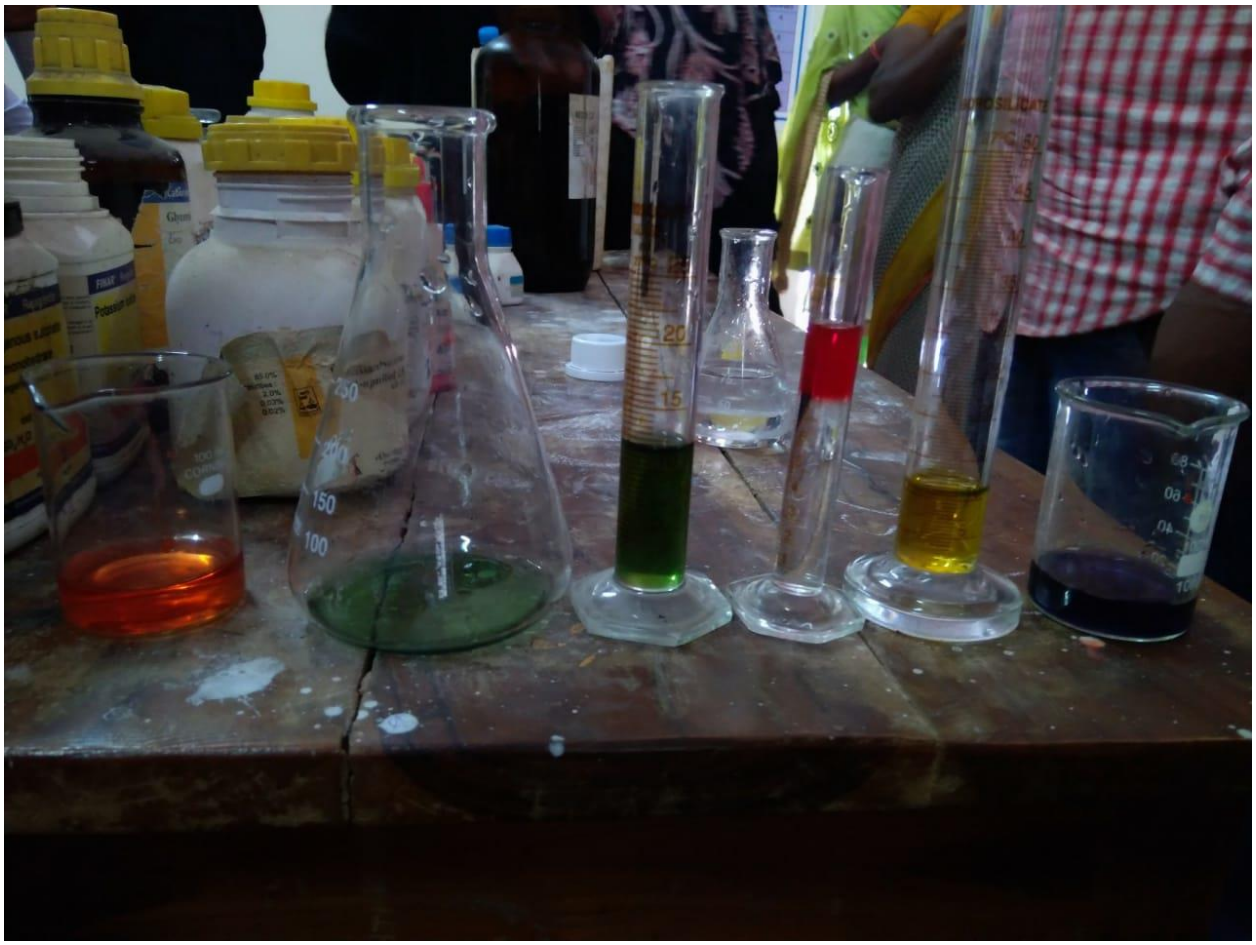

Mukesh.S Avinash
B.Ranjith
REDMI NOTE 9
AI QUAD CAMERA


MEIOSIS
REDMI NOTE 9
AI QUAD CAMERA


REDMI NOTE 9
AI QUAD CAMERA


Sample Collected from College Bore, NZB.
Sample Collected from Bhagewadla Tap water, Aymost, NZB.
Sample Collected from MCN, Dubba, NZB. (TAP water)
Sample Collected from College water plant NZB


Strong (NaOH) Basic H_2O
Neutral H_2O
Mild Acidic H_2O
Strong Acid H_2O HCl



Problems encountered:

Students faced difficulties in handling the instruments in their first attempt, later got adjusted. They also faced few challenges in collecting samples ranging from community entry, movement restrictions in places, unfavorable weather conditions and even managing field team dynamics.