

Rayat Shikshan Sanstha's

Shri. Raosaheb Ramrao Patil Mahavidyalaya, Savlaj

Tal. Tasgaon, Dist. Sangli

Academic Year -2016-17

Department of Chemistry

A Certificate Course in Water Analysis

Programme Code: SWA-1

Program Name: Certificate Course for B.Sc.

A Certificate Course in Water Analysis

Syllabus

Paper I : Theory of Water Analysis

Unit-1 : Importance of Water Analysis

4

Introduction to Hydrology: Water resources, Differentecosystem of Hydrology, Riverine, Estuarine, and marine, Status of water quality inIndia.

Unit-2 : Water Quality Parameters

6

Water quality parameters and their interaction- physical and chemical characteristics- turbidity, colour, temperature, taste, acidity, alkalinity, CO₂,hardness, pH. EC, TDS, Total Dissolved Solid (TDS), COD, BOD, DO, chloride content.

Unit-3 : Water Pollution

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Environmental pollution- Definition, types- water pollution, causes- industrial and domestic effluents, pesticides, control measures.

Unit-4 : Water Purification Process

6

Municipal and sewage and waste industrial effluent- primary treatment- screening, equalization, coagulation etc. Secondary treatment- trickling filter, activated sludge process- aerobic and anaerobic treatment and disposal, Tertiary treatment- Evaporation, Reverse Osmosis, Dialysis, Ion Exchange, Biofilter, Adsorption, Absorption.

Unit-5 : Sampling and Instrumental Techniques:

4

Methods of Sample Collection and processing purpose of water analysis, selection of field, precautions during water collection & processing, Preservation labelling and Storage of Water samples.

Brief study of instruments: pH meter, Conductivity meter (Calibration, Instrumentation, applications only).

Paper II: Practical Analytical Methods36

1. Determination of Hardness of Water
2. Determination of Alkalinity of Water
3. Determination of Acidity of Water
4. Determination of pH of Water
5. Determination of Conductivity of Water
6. Determination of Chloride Content of Water
7. Determination of Total Solids present in Water
8. Determination of Total Dissolved Solids (TDS) present in Water
9. Determination of Free Carbon Dioxide in Water
10. Determination of Chemical Oxygen Demand (COD) of Water
11. Determination of Biological Oxygen Demand (BOD) of Water
12. Determination of Dissolved Oxygen (DO) of Water

A Certificate Course in Water Analysis

Students Enrolled

Sr. No.	Name of the Student	Highest Qualification for Admission	Gender
1	Babar Bhagyashri Pandurang (Shalan)	H.S.C.	Female
2	Bhosale Monika Ashok	H.S.C.	Female
3	Chavan Pooja Tanaji	H.S.C.	Female
4	Chavan Pooja Vinayak	H.S.C.	Female
5	Chavan Pratiksha Balaso	H.S.C.	Female
6	Chavan Shubhangi Dinkar	H.S.C.	Female
7	Deshmukh Sulabha Ankush	H.S.C.	Female
8	Gadade Pranali Ravindra (Rajshri)	H.S.C.	Female
9	Gotpangre Dhanadhri Appasaheb	H.S.C.	Female
10	Jadhav Akanksha Ashok	H.S.C.	Female
11	Jadhav Ashvini Amrut (Ujjwala)	H.S.C.	Female
12	Jadhav Prajakta Ravasaheb	H.S.C.	Female
13	Jadhav Pratibha Hanmant (Lata)	H.S.C.	Female
14	More Snehal Chandrakant	H.S.C.	Female
15	Patil Asmita Babaso	H.S.C.	Female
16	Patil Komal Balasaheb	H.S.C.	Female
17	Patil Madhuri Dinkar	H.S.C.	Female
18	Patil Poonam Dilip	H.S.C.	Female
19	Patil Varsha Anandrao	H.S.C.	Female
20	Pawar Ashwini Avinash	H.S.C.	Female
21	Pawar Dhanashri Manaji	H.S.C.	Female
22	Pawar Latika Prakash	H.S.C.	Female
23	Pawar Nilam Dilip	H.S.C.	Female
24	Pawar Pallavi Yashwant	H.S.C.	Female
25	Pawar Pranali Shankar	H.S.C.	Female
26	Pawar Shubhangi Shankar	H.S.C.	Female
27	Pawar Shubhangi Uttam (Rani)	H.S.C.	Female
28	Pol Pranali Bandu (Pushpa)	H.S.C.	Female
29	Shinde Pramila Sambhaji	H.S.C.	Female
30	Shinde Pranali Shrikant	H.S.C.	Female
31	Shinde Sarika Balasaheb	H.S.C.	Female
32	Shipure Reshma Bhagappa	H.S.C.	Female
33	Chavan Revati Ravikant	H.S.C.	Female
34	Kamble Prerana Devanand	H.S.C.	Female
35	Kumbhar Bhagyashri Ratnappa	H.S.C.	Female
36	Lokhande Yogita Ashok	H.S.C.	Female
37	Zambre Kiran Tanaji	H.S.C.	Female
38	Zambre Shubhangi Bapuso	H.S.C.	Female
39	Babar Dipak Kundlik	H.S.C.	Male

40	Bagawade Sanatkumar Parshwanah	H.S.C.	Male
41	Bhosale Tanaji Shivaji	H.S.C.	Male
42	Bobade Sumit Keshav	H.S.C.	Male
43	Chavan Akash Vishwanath	H.S.C.	Male
44	Chavan Pramod Namdev	H.S.C.	Male
45	Chavan Sagar Laxman	H.S.C.	Male
46	Chavan Santosh Jalindar (Anita)	H.S.C.	Male
47	Dhangar Shrishail Shankar	H.S.C.	Male
48	Dharmadhikari Girish Prakash (Ujwala)	H.S.C.	Male
49	Gadade Vaibhav Dhanaji (Sunita)	H.S.C.	Male
50	Gujale Suraj Subhash (Chhaya)	H.S.C.	Male
51	Jadhav Abhijit Ashok	H.S.C.	Male
52	Jadhav Prashant Pandurang (Jayashri)	H.S.C.	Male
53	Jadhav Siddhanath Shamrao (Banubai)	H.S.C.	Male
54	Jadhav Sushant Subhash (Manisha)	H.S.C.	Male
55	Madhvan Ashish Bhauso (Kaushalya)	H.S.C.	Male
56	Maske Tushar Baburao (Jayashri)	H.S.C.	Male
57	Nikam Kiran Krishnadeo	H.S.C.	Male
58	Nikam Rohit Shivaji (Madhushri)	H.S.C.	Male
59	Nikam Sandesh Sambhaji	H.S.C.	Male
60	Nikam Sharad Yashvant	H.S.C.	Male
61	Nikam Vishal Subhash	H.S.C.	Male
62	Patil Ajinkya Janardhan	H.S.C.	Male
63	Patil Dipak Shidgonda	H.S.C.	Male
64	Patil Jaydeep Jaysing	H.S.C.	Male
65	Patil Jitendra Chandrakant (Sindhu)	H.S.C.	Male
66	Patil Santosh Sahebrao	H.S.C.	Male
67	Pawar Amit Uttam	H.S.C.	Male
68	Potdar Onkar Narhari (Vijaya)	H.S.C.	Male
69	Salunkhe Atul Yashwant (Sunita)	H.S.C.	Male
70	Salunkhe Pradeep Ramchandra	H.S.C.	Male
71	Shinde Surajkumar Bhanudas (Sharda)	H.S.C.	Male
72	Talekoti Ravindra Irappa	H.S.C.	Male
73	Thorat Anil Rajendra	H.S.C.	Male
74	Wakade Shubham Sunil	H.S.C.	Male
75	Zambre Akash Uttam	H.S.C.	Male