

Rayat Shikshan Sanstha's

Shri. Raosaheb Ramrao Patil Mahavidyalaya, Savlaj

Tal. Tasgaon, Dist. Sangli

Academic Year -2012-13

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 **4**

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 Methods

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	Chavan Ashwini Arjun	H.S.C.	Female
2	Gaikwad Dipali samadhan	H.S.C.	Female
3	Jadhav Smita Chandrakant	H.S.C.	Female
4	Lohar Anuradha Pandit	H.S.C.	Female
5	Mali Ashwini Shidhu	H.S.C.	Female
6	Mulla Shabanam Habib	H.S.C.	Female
7	Patil Komal Sambhaji	H.S.C.	Female
8	Patil Amruta Algonada	H.S.C.	Female
9	Patil Bhagyashri Gajanan	H.S.C.	Female
10	Patil Maya Sanjay	H.S.C.	Female
11	Patil Poonam Jotiram	H.S.C.	Female
12	Patil Priyanka Dadaso	H.S.C.	Female
13	Patil Shailaja Shahaji	H.S.C.	Female
14	Patole Rupali Himatrao	H.S.C.	Female
15	Patole Sandhya Netaji	H.S.C.	Female
16	Salunkhe Dipali Vasantrao	H.S.C.	Female
17	Savljakar Supriya Sanjay	H.S.C.	Female
18	Sawant Pooja Dilip	H.S.C.	Female
19	Tokale Sneha Dattatraya	H.S.C.	Female
20	Zambre Swapnali Jalindar	H.S.C.	Female
21	Chavan Sushant Kisan	H.S.C.	Male
22	Chavan Vikas Sampat	H.S.C.	Male
23	Desai Sandip Sidram	H.S.C.	Male
24	Dhumal Vijay Manik	H.S.C.	Male
25	Jadhav Amit Vishnu	H.S.C.	Male
26	Jadhav Jaydip Vitthal	H.S.C.	Male
27	Jadhav Nitin Sadashiv	H.S.C.	Male
28	Jadhav Pandurang Ravaso	H.S.C.	Male
29	Jadhav Rahul Dadasaheb	H.S.C.	Male
30	Kadam Uddhav Subhash	H.S.C.	Male
31	Kambale Sagar Adhik	H.S.C.	Male
32	Kumbhar Ajit Sayaji	H.S.C.	Male
33	Mali Viraj Vinayak	H.S.C.	Male
34	Mohite Kiran Subhash	H.S.C.	Male
35	Mohite Prashant Maruti	H.S.C.	Male
36	More Akshaykumar Tukaram	H.S.C.	Male
37	More Navanath Kondiba	H.S.C.	Male
38	More Santosh Mahadev	H.S.C.	Male
39	More Somnath Ramhari	H.S.C.	Male

40	Patil Nikhil Manik	H.S.C.	Male
41	Patil Pranav Baban	H.S.C.	Male
42	Patil Satish Sadashiv	H.S.C.	Male
43	Patil Suhas Haribhau	H.S.C.	Male
44	Patole Ganesh Bhagvan	H.S.C.	Male
45	Pawar Sandip Vinayak	H.S.C.	Male
46	Pawar Vishal Sanjay	H.S.C.	Male
47	Potdar Parag Bapuso	H.S.C.	Male
48	Sawant Sagar Subarao	H.S.C.	Male
49	Shinde Akshay Ashok	H.S.C.	Male
50	Shinde Krushna Dnyandeo	H.S.C.	Male
51	Shinde Pravin Ganesh	H.S.C.	Male
52	Suryawanshi Sushant Namdev	H.S.C.	Male
53	Thorat Pramod Nanaso	H.S.C.	Male
54	Yadav Ganesh Eknath	H.S.C.	Male
55	Yadav Vishal Ashok	H.S.C.	Male
56	Zambare Pradip Chandrakant	H.S.C.	Male
57	Zambre Arjun Parashram	H.S.C.	Male
58	Zambre Kiran Fanchu	H.S.C.	Male
59	Desai Raviraj Sadashiv	H.S.C.	Male
60	Nimbalkar Deepak Namdev	H.S.C.	Male