

Rayat Shikshan Sanstha's

Shri. Raosaheb Ramrao Patil Mahavidyalaya, Savlaj

Tal. Tasgaon, Dist. Sangli

Academic Year -2013-14

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 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	Nalavade Pallavi Baban	H.S.C.	Female
2	Chavan Ashwini Anandrao	H.S.C.	Female
3	Chavan Ashwini Babaso	H.S.C.	Female
4	Chavan Madhuri Ravsaheb	H.S.C.	Female
5	Chavan Priyanka Vishwanath	H.S.C.	Female
6	Chavan Savita Ravasaheb	H.S.C.	Female
7	Chavan Shital Balaso	H.S.C.	Female
8	Chavan Teja Suresh	H.S.C.	Female
9	Dhende Akash Sanjay	H.S.C.	Female
10	Dhende Puja Babaso	H.S.C.	Female
11	Gurav Gitanjali Muralidhar	H.S.C.	Female
12	Jadhav Kajal Shashikant	H.S.C.	Female
13	Jadhav Patil Pruthviraj Manikrao	H.S.C.	Female
14	Jadhav Vidya Sambhaji	H.S.C.	Female
15	Kamble Harshada Prabhakar	H.S.C.	Female
16	Kamble Varsha Namdev	H.S.C.	Female
17	Kharade Supriya Shivaji	H.S.C.	Female
18	Kum.Shinde Priyanka Shrikant	H.S.C.	Female
19	Mohite Minakshee Rauso	H.S.C.	Female
20	Nikam Anuraj Gajanan	H.S.C.	Female
21	Padmale Pooja Arun	H.S.C.	Female
22	Patil Dipali Ramrao	H.S.C.	Female
23	Patil Priyanka Pandurang	H.S.C.	Female
24	Patil Rajashri Baban	H.S.C.	Female
25	Patil Snehal Ashok	H.S.C.	Female
26	Patil Vrashali Ganesh	H.S.C.	Female
27	Pawar Maya Mansing	H.S.C.	Female
28	Pawar Smita Balaso	H.S.C.	Female
29	Pawar Vaishali Manohar	H.S.C.	Female
30	Pawar Vijaya Nanasaheb	H.S.C.	Female
31	Phakade Shital Popat	H.S.C.	Female
32	Shinde Arati Subhash	H.S.C.	Female
33	Shinde Komal Arun	H.S.C.	Female
34	Shinde Poonam Bapu	H.S.C.	Female
35	Shinde Tejshwini Bhimrao	H.S.C.	Female
36	Thorat Bharati Dilip	H.S.C.	Female
37	Yadav Aparna Dilip	H.S.C.	Female
38	Zambre Pooja Tanaji	H.S.C.	Female
39	Zambre Priyanka Pandurang	H.S.C.	Female

40	Zambre Vrashali Tanaji	H.S.C.	Female
41	Bhadake Swapnil Sanjay	H.S.C.	Male
42	Bhosale Abhijeet Sambhaji	H.S.C.	Male
43	Bhosale Sagar Bhagawan	H.S.C.	Male
44	Bhosale Yogesh Jaysing	H.S.C.	Male
45	Chavan Ajit Govind	H.S.C.	Male
46	Chavan Manohar Jalindar	H.S.C.	Male
47	Chavan Manoj Machindra	H.S.C.	Male
48	Chavan Praphul Gulab	H.S.C.	Male
49	Chavan Vijay Ramchandra	H.S.C.	Male
50	Dhende Abhishek Kamalakar	H.S.C.	Male
51	Ghagare Nitin Daji	H.S.C.	Male
52	Jadhav Avdhut Tukaram	H.S.C.	Male
53	Jadhav Ganesh Sampat	H.S.C.	Male
54	Jadhav Pandurang Ravaso	H.S.C.	Male
55	Jadhav Pramod Pralhad	H.S.C.	Male
56	Jadhav Pravin Tanaji	H.S.C.	Male
57	Jadhav Santosh Maruti	H.S.C.	Male
58	Jadhav Sunil Madhukar	H.S.C.	Male
59	Kamble Sagar Adhik	H.S.C.	Male
60	Kumbhar Santosh Jagannath	H.S.C.	Male
61	Mali Sagar Laxman	H.S.C.	Male
62	Mane Akshay Narayan	H.S.C.	Male
63	Maske Jitendra Baburao	H.S.C.	Male
64	Patil Akshay Shamrao	H.S.C.	Male
65	Patil Omkar Pandharinath	H.S.C.	Male
66	Sul Amol Laxman	H.S.C.	Male
67	Sutar Akshay Gajanan	H.S.C.	Male
68	Zambre Nitin Subhash	H.S.C.	Male
69	Zambre Satish Yashwant	H.S.C.	Male
70	Zambre Suraj Kakaso	H.S.C.	Male