

Rayat Shikshan Sanstha's
Arts, Science and Commerce College Ramanandnagar (Burli) Tal: Palus, Dist.:
Sangli -416 308

**VALUE ADDED COURSE
ON
ANALYTICAL METHODS IN CHEMISTRY**

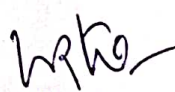
Academic Year: 2019-20

DEPARTMENT OF CHEMISTRY

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burli),
Tal.-Palus, Dist. - Sangli.
Department of Chemistry
Year: 2019-2020
value Added Course
Analytical Methods in Chemistry
Student List

Roll No	Name of Students
1851	ARBUNE POOJA MANSING
1852	AVATE ROHIT KUMAR
1853	BANSODE RAKESH ASHOK
1854	BUCHADE CHAITANYA DILIP
1855	DESHMUKH ROHIT RAMESH
1856	DESHMUKH SWAPNIL JALINDAR
1857	EDAKE ROHIT ASHOK
1858	GUDMANI SUNIL ASHOK
1859	GULAVANI PURUSHOTTAM PANDURANG
1860	JADHAV AKANKSHA CHANDRAKANT
1861	JADHAV AKASH SANTOSH
1862	JADHAV ANIKET SHANKAR
1863	JADHAV BHAKTI JALINDAR
1864	JADHAV ROHIT CHANDRAKANT
1865	JADHAV SHRADDHA SANJAY
1866	JADHAV SHUBHAM SARANG
1867	JADHAV SOURABH SANJAY
1868	JADHAV SUSHIL MAHADEV
1869	JADHAV VISHWJEET ASHOK
1870	KABUGADE SOMNATH DINKAR
1871	KADAM OMKAR SHARAD
1872	KADAM ROHIT SHASHIKANT
1873	KUMBHAR AVINASH ASHOK
1874	KUMBHAR OMKAR SANJAY

1875	MALGAVAKAR ROHAN MANOJ
1876	MALI PRATIKSHA SANJAY
1877	MANE AISHWARYA SAMBHAJI
1878	MANE NITEEN SANJAY
1879	MANE SANSKRUTI TANAJI
1880	MOHITE AKASH APPASAHEB
1881	MOHITE RUPALI SANTOSH
1882	MOHITE VIJAY RAGHUNATH
1883	MUJAWAR MUSKAN DASTGIR
1884	NALAWADE SHRIDHAR NIVAS
1885	NIKAM AMRUTA VASANT
1886	PATIL ASHITOSH ANIL
1887	PATIL KISHOR NIVAS
1888	PATIL PRITHVIRAJ SANJAY
1889	PATIL RUTUJA ARVIND
1890	PATIL SAMARTH UTTAM
1891	PAWAR MAYURI ASHOK
1892	PAWAR PRIYAKA SURESH
1893	PAWAR SAURABH SANJAY
1894	PAWAR SHUBHAM ASHOK
1895	SALUNKHE ANKITA HANMANT
1896	SALUNKHE RUTUJA HANMANT
1897	SALUNKHE UTPAL UDDHAV
1898	SHELAKHE SHIVRAJ DATTATRAY
1899	SURYAWANSHI NIKHIL NAMDEV
1900	SURYAWANSHI PRIYANKA DILIP
1901	SURYAWANSHI SAMPADA LAXMAN
1902	TAMBVEKAR SAYALI RAMESH
1903	WAGHMARE KOMAL RAJU
1949	SHIKHARE PRUTHVIRAJ VIJAY
1951	MOHITE AKSHAY MAHADEV
1952	KADAM CHINMAY DIPAK
1953	SURYAWANSHI SHUBHAM KUMAR
1958	ANUSE HARSHADA RAJARAM
1960	KADAM VISHWAJEET VISHNU
1961	RANKHAMBE VIHAR MAHADEV


 Head
 Dept. of Chemistry
 A. S. C. College
 Ramanandnagar (Burli)

Syllabus

Chromatography:

- a) Separation of mixtures
 - i) Paper chromatographic of Co^{2+} and Ni^{2+} .
 - ii) Separation and identification of the amino acids present in the given mixture by paper chromatography. Reporting the R_f values.

II). Solvent Extractions.

- i) To separate a mixture of Ni^{2+} & Fe^{2+} by complexation with DMG and extracting the Ni^{2+} DMG complex in chloroform, and determine its concentration by spectrophotometry.

Analysis of soil:

- i) Determination of pH of soil.
- ii) Total soluble salt.
- iii) Estimation of calcium, magnesium
- iv) Qualitative detection of nitrate, phosphate

Ion exchange:

- i) Determination of exchange capacity of cation exchange resins and anion exchange resins.
- ii) Separation of amino acids from organic acids by ion exchange chromatography.

III Spectrophotometry

Verification of Lambert-Beer's law and determination of concentration of a coloured species (CuSO_4 , KMnO_4)

Reference Books:

- 1) Vogel, Arthur I: A Text book of Qualitative Inorganic Analysis (Rev, by G.H. Jeffery and other) 5th Ed. The English language Book Society of Longman.
- 2) Willard, Hobart H, et al: Instrumental Methods of Analysis, 7th Ed. Wardsworth Publishing Company, Belmont, California. USA. 1988.
- 3) Christian, Gary D: Analytical Chemistry, 6th Ed, John Wiley & Sons, New York, 2004.

Qualitative and quantitative Aspects of analysis:

Sampling, evaluation of analytical data, errors, accuracy and precision methods of their expressing, normal law of distribution of indeterminate errors, statistical test of data: F, Q and test rejection of data, and confidence intervals.

Optical methods of analysis: (5 lectures)

Origin of spectra, interaction of radiation with matter, fundamental laws of spectroscopy and selection rules, validity of Beer-Lambert's law,

UV- visible spectrometry: Basic principle of instrumentation (choice of source, monochromator and detector) for single and double beam instrument;

Basic principle of quantitative analysis; extermination of metal ion form aqueous solution, geometrical isomers, keto-enol tautomers.

Flame Atomic Absorption and Emission Spectrometry: Basic principle of instrumentation (choice of source, monochromator, detector, choice of flame and Burner desing. Techniques of atomization and sample introduction, Method of background correction. Source of chemical interferences and their method of removal. Techniques for the quantitative estimation of trace level of metal ions form water sample.

Thermal methods of analysis:

Theory of thermogravimetry (TG), basic principle of instrumentation. Techniques for quantitative estimation of Ca and Mg from their mixture.

Electroanalytical methods:

Classification of electroanalytical methods, basic principle of pH metric, potentiometric and conductometric titration. Techniques used for the determination of equivalence point. Techniques used for the, of pKa values.

Separation Techniques:

Solvent extraction: Classification, principle and efficiency of the technique. Mechanism extraction: extraction by salvation and chelation.

Techniques of extraction batch, continuous and counter current extractions.

Qualitative and quantitative aspects of solvent extraction: extraction of metal ions from aqueous solution, extraction of organic species from the aqueous media.

Chromatography: Classification principle and efficiency of the technique, Mechanism of separation: adsorption partition & ion exchange. Development of chromatograms: frontal, elution and displacement method.

Reference Books:

- 1) Vogel, Arthur I: A Text book of Qualitative Inorganic Analysis (Rev, by G.H. Jeffery and other) 5th Ed. The English language Book Society of Longman.
- 2) Willard, Hobart H, et al: Instrumental Methods of Analysis, 7th Ed. Wards worth Publishing Company, Belmont, California. USA. 1988.
- 3) Christian, Gary D: Analytical Chemistry, 6th Ed, John Wiley & Sons New York, 200
- 4) Harris, Daniel C: Exploring Chemical Analysis, Ed New York < W,H. Freeman, 2001.
- 5) Khopkar, S,M. Basic Concept of Analytical Chemistry New Age International Publisher, 2009 .
- 6) Skoog .D.A. Holler FJ. And Nieman, T.A. Principle of instrumental Analysis, Thoms


Course Duration -3 Months

After successful completion of course certificate will be issued.

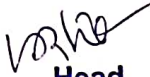
Theory Periods-60

Practical Periods-60

Total number of periods -120


Incharge

Certificate Course
Department of Chemistry


Head
Dept. of Chemistry
Department of Chemistry
Ramanandnagar (Burl)

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burl),
Department of Chemistry

Year: 2019-2020

Value Added Course on
Analytical Methods in Chemistry


Theory - Time Table (Dec 2020)

Time 10 am to 11 am

Sr.No	Name of Incharge	2	3	4	5	6	9	10	11	12	13	16	17	18	19	20	23	24	25	26	27	
1	Dr. V.B.Patil	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	Mr. U.S. Shelke	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	Ms. M.S. Chavan	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	Ms. A.A. Patil	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	Ms. A.S. Patil	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	Ms. A.N. Dalvi	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	Ms. P.M. Mali	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	Ms. S.S. Jadhav	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

Practical- Time Table (Dec 2020) Time 2:00 to 5:00 pm

Sr.No	Name of Incharge	7	14	21	27	28
1	Ms. A.N. Dalvi	P	P	P	P	P
2	Ms. P.M. Mali	P	P	P	P	P
3	Ms. S.S. Jadhav	P	P	P	P	P
4	Ms. A.A. Patil	P	P	P	P	P
5	Ms. A.S. Patil	P	P	P	P	P


 Head
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 A. S. C. College
 Ramanandnagar

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Department of Chemistry
Year: 2019-2020

Value Added Course on
Analytical Methods in Chemistry

Theory - Time Table (Jan 2020)

Time 10 am to 11 am

Sr.No	Name of Incharge	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
291	Dr.V.B.Patil	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	Mr.U.S.Shelke	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	Ms.M.S.Chavan	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	Ms.A.A.Patil	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	Ms.A.S.Patil	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	Ms.A.N.Dalvi	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	Ms.P.M.Mali	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	Ms.S.S.Jadhav	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

Practical- Time Table (Jan 2020) Time 2:00 to 5:00 pm

Sr.No	Name of Incharge	4	11	18	24	25
1	Ms.A.N.Dalvi	P	P	P	P	P
2	Ms.P.M.Mali	P	P	P	P	P
3	Ms.S.S.Jadhav	P	P	P	P	P
4	Ms.A.A.Patil	P	P	P	P	P
5	Ms.A.S.Patil	P	P	P	P	P

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Head

Dept. of Chemistry
A. S. C. College
Ramanandnagar (Burl)

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burl),
Department of Chemistry

Year: 2019-2020

Value Added Course on
Analytical Methods in Chemistry

Theory - Time Table (Feb 2020)

Time 10 am to 11 am

Sr.No	Name of Incharge	3	4	5	6	7	10	11	12	13	14	17	18	19	20	21	24	25	26	27	28
291	Dr. V.B.Patil	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	Mr. U.S.Shelke	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	Ms.M.S.Chavan	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	Ms.A.A.Patil	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	Ms.A.S.Patil	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	Ms.A.N.Dalvi	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	Ms.P.M.Mali	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	Ms.S.S.Jadhav	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

Practical- Time Table (Feb 2020) Time 2:00 to 5:00 pm

Sr.No	Name of Incharge	1	8	15	22	29
1	Ms.A.N.Dalvi	P	P	P	P	P
2	Ms.P.M.Mali	P	P	P	P	P
3	Ms.S.S.Jadhav	P	P	P	P	P
4	Ms.A.A.Patil	P	P	P	P	P
5	Ms.A.S.Patil	P	P	P	P	P

V.S.P.

Head

Dept. of Chemistry
A. S. C. College
Ramanandnagar (Burl)

**Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burli),
Tal.-Palus, Dist. - Sangli.
Department of Chemistry
Year: 2019-2020
value Added Course
Analytical Methods in Chemistry**

Department of chemistry ASC College Ramanandnagar (Burli)
Started the Value added course on Analytical methods in chemistry
from the academies year 2019-20

The outcomes of the course follows –

- Students get aware about the Analytical methods in industry.
- This course built up the Analytical Skill amongst the Student.
- Students more their minds towards Scientific approaches.
- This course is useful for the quantitative as well as qualitative analysis of Chemicals.

Head
Dept. of Chemistry
A. S. C. College
Ramanandnagar (Burli)

1898	SHELAKESHIVRAJ DATTATRAY	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1899	SURYAWANSHI NIKHIL NAMDEV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1900	SURYAWANSHI PRIYANKA DILIP	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1901	SURYAWANSHI SAMPADA LAXMAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1902	TAMBVEKAR SAYALI RAMESH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1903	WAGHMARE KOMAL RAJU	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1949	SHIKHARE PRUTHVIRAJ VIJAY	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1951	MOHITE AKSHAY MAHADEV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1952	KADAM CHINMAY DIPAK	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1953	SURYAWANSHI SHUBHAM KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1958	ANUSE HARSHADA RAJARAM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1960	KADAM VISHWAJEET VISHNU	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1961	RANKHAMBE VIHAR MAHADEV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

VA No

Head

Dept. of Chemistry
A. S. C. College
Ramanandnagar (Burla)

Dec 2020 Attendance Pratical Time 2 pm to 5 pm

Roll No	Name of Students	7	14	21	27	28
1851	ARBUNE POOJA MANSING	P	P	P	P	P
1852	AVATE ROHIT KUMAR	P	P	P	P	P
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1865	JADHAV SHRADDHA SANJAY	P	P	P	P	P
1866	JADHAV SHUBHAM SARANG	P	P	P	P	P
1867	JADHAV SOURABH SANJAY	P	P	P	P	P
1868	JADHAV SUSHIL MAHADEV	P	P	P	P	P
1869	JADHAV VISHWJEET ASHOK	P	P	P	P	P
1870	KABUGADE SOMNATH DINKAR	P	P	P	P	P
1871	KADAM OMKAR SHARAD	P	P	P	P	P
1872	KADAM ROHIT SHASHIKANT	P	P	P	P	P
1873	KUMBHAR AVINASH ASHOK	P	P	P	P	P
1874	KUMBHAR OMKAR SANJAY	P	P	P	P	P
1875	MALGA VAKAR ROHAN MANOJ	P	P	P	P	P

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1879	MANE SANSKRUTI TANAJI	P	P	P	P	P
1880	MOHITE AKASH APPASAHEB	P	P	P	P	P
1881	MOHITE RUPALI SANTOSH	P	P	P	P	P
1882	MOHITE VIJAY RAGHUNATH	P	P	P	P	P
1883	MUJAWAR-MUSKAN DASTGIR	P	P	P	P	P
1884	NALAWADE SHRIDHAR NIVAS	P	P	P	P	P
1885	NIKAM AMRUTA VASANT	P	P	P	P	P
1886	PATIL ASHITOSH ANIL	P	P	P	P	P
1887	PATIL KISHOR NIVAS	P	P	P	P	P
1888	PATIL PRITHVIRAJ SANJAY	P	P	P	P	P
1889	PATIL RUTUJA ARVIND	P	P	P	P	P
1890	PATIL SAMARTH UTTAM	P	P	P	P	P
1891	PAWAR MAYURI ASHOK	P	P	P	P	P
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1893	PAWAR SAURABH SANJAY	P	P	P	P	P
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1901	SURYAWANSHI Sampada Laxman	P	P	P	P	P
1902	TAMBVEKAR SAYALI RAMESH	P	P	P	P	P

1903	WAGHMARE KOMAL RAJU	P	P	P	P	P
1949	SHIKHARE PRUTHVIRAJ VIJAY	P	P	P	P	P
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1952	KADAM CHINMAY DIPAK	P	P	P	P	P
1953	SURYAWANSHI SHUBHAM KUMAR	P	P	P	P	P
1958	ANUSE HARSHADA RAJARAM	P	P	P	P	P
1960	KADAM VISHWAJEET VISHNU	P	P	P	P	P
1961	RANKHAMBE VIHAL MAHADEV	P	P	P	P	P

W. S. W.

Head

Dept. of Chemistry

A. S. C. College

Ramanandnagar (Buri)

1898	SHELAKE SHIVRAJ DATTATRAY	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1899	SURYAWANSHI NIKHIL NAMDEV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
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1952	KADAM CHINMAY DIPAK	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1953	SURYAWANSHI SHUBHAM KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1958	ANUSE HARSHADA RAJARAM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1960	KADAM VISHWAJEET VISHNU	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1961	RANKHAMBE VIHAR MAHADEV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P



Head

Dept. of Chemistry

A. S. C. College


Ramanandnagar (Burli)

Jan 2020 Attendance Practical Time 2 pm to 5 pm

Roll No	Name of Students	7	14	21	27	28
1851	ARBUNE POOJA MANSING	P	P	P	P	P
1852	AVATE ROHIT KUMAR	P	P	A	P	P
1853	BANSODE RAKESH ASHOK	P	P	P	P	P
1854	BUCHADE CHAITANYA DILIP	P	P	P	P	P
1855	DESHMUKH ROHIT RAMESH	P	P	P	P	P
1856	DESHMUKH SWAPNIL JALINDAR	P	P	P	P	P
1857	EDAKE ROHIT ASHOK	P	P	P	P	P
1858	GUJDMANI SUNIL ASHOK	P	P	P	P	P
1859	GUJAVANI PURUSHOTTAM PANDUR	P	P	P	P	P
1860	JADHAV AKANKSHA CHANDRAKANT	P	P	P	P	P
1861	JADHAV AKASH SANTOSH	P	P	P	P	P
1862	JADHAV ANIKET SHANKAR	P	P	P	P	P
1863	JADHAV BHAKTI JALINDAR	P	P	P	P	P
1864	JADHAV ROHIT CHANDRAKANT	P	P	P	P	P
1865	JADHAV SHRADDHA SANJAY	P	P	P	P	P
1866	JADHAV SHUBHAM SARANG	P	P	P	P	P
1867	JADHAV SOURABH SANJAY	P	P	P	P	P
1868	JADHAV SUSHIL MAHADEV	P	P	P	P	P
1869	JADHAV VISHWJEET ASHOK	P	P	A	P	P
1870	KABUGADE SOMNATH DINKAR	P	P	P	P	P
1871	KADAM OMKAR SHARAD	P	P	P	P	P
1872	KADAM ROHIT SHASHIKANT	P	P	P	P	P
1873	KUMBHAR AVINASH ASHOK	P	P	P	A	P
1874	KUMBHAR OMKAR SANJAY	P	P	P	P	P
1875	MALGA VAKAR ROHAN MANOJ	P	P	P	P	P

1876	MALI PRAKTIKSHA SANJAY	P	P	P	P	P	P
1877	MANE AISHWARYA SAMBHAJI	P	A	P	P	P	P
1878	MANE NITEEN SANJAY	P	P	P	P	P	P
1879	MANE SANSKRUTI TANAJI	P	P	P	P	P	P
1880	MOHITE AKASH APPASAHAB	P	P	P	P	P	P
1881	MOHITE RUPALI SANTOSH	P	P	P	P	P	P
1882	MOHITE VIJAY RAGHUNATH	P	P	P	P	A	P
1883	MUJAWAR MUSKAN DASTGIR	P	P	P	P	P	P
1884	NALAWADE SHRIDIHAR NIVAS	P	P	P	P	P	P
1885	NIKAM AMRUTA VASANT	P	P	P	P	P	P
1886	PATIL ASHITOSH ANIL	P	P	P	P	P	P
1887	PATIL KISHOR NIVAS	P	P	P	P	P	P
1888	PATIL PRITHVIRAJ SANJAY	P	P	P	P	P	P
1889	PATIL RUTUJA ARVIND	P	P	P	P	P	P
1890	PATIL SAMARTHI UTTAM	P	P	P	P	P	P
1891	PAWAR MAYURI ASHOK	P	P	P	P	P	P
1892	PAWAR PRIYAKA SURESH	P	P	P	P	P	P
1893	PAWAR SAURABH SANJAY	P	P	P	P	P	P
1894	PAWAR SHUBHAM ASHOK	P	P	P	P	P	P
1895	SALUNKHE ANKITA HANMANT	P	P	P	P	P	P
1896	SALUNKHE RUTUJA HANMANT	P	P	P	A	P	P
1897	SALUNKHE UTPAL UDDHAV	P	P	P	P	P	P
1898	SHELAKHE SHIVRAJ DATTATRAY	P	P	P	P	P	P
1899	SURYAWANSHI NIKHIL NAMDEV	P	P	P	P	P	P
1900	SURYAWANSHI PRIYANKA DILIP	P	P	P	P	P	P
1901	SURYAWANSHI SAMPADA LAXMAN	P	P	A	P	P	P
1902	TAMBVEKAR SAYALI RAMESH	P	P	P	P	P	P

1903	WAGHMARE KOMAL RAJU	P	P	P	P	P
1949	SHIKHARE PRUTHVIRAJ VIJAY	P	P	P	P	P
1951	MCHITE AKSHAY MAHADEV	P	P	P	P	P
1952	KADAM CHENMAY DEPAK	P	P	P	P	P
1953	SURYAWANSHI SHUBHAM KUMAR	P	P	P	P	P
1958	ANUSE HARSHADA RAJARAM	P	P	P	P	P
1960	KADAM VISHVA AJEET VISHNU	P	P	P	P	P
1961	RANKHAMBHE VITHAL MAHADEV	P	P	P	P	P


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 Ramnagar (Dist.)

1898	SHELAKE SHIVRAJ DATTATRAY	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1899	SURYAWANSHI NIKHIL NAMDEV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1900	SURYAWANSHI PRIYANKA DILIP	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1901	SURYAWANSHI SAMPADA LAXMAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1902	TAMBVEKAR SAYALI RAMESH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1903	WAGHMARE KOMAL RAJU	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1949	SHIKHARE PRUTHVIRAJ VIJAY	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1951	MOHITE AKSHAY MAHADEV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1952	KADAM CHINMAY DIPAK	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1953	SUR YAWANSHI SHUBHAM KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1958	ANUSE HARSHADA RAJARAM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1960	KADAM VISHWAJEET VISHNU	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1961	RANKHAMBE VIHAR MAHADEV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

Wrtg

Head

Dept. of Chemistry

A. S. C. College

Ramanandnagar (Burlil)

1903	WAGHMARE KOMAL RAJU	1	P	P	P	P
1949	SHIKHARE PRUTHVIRAJ VIJAY	1	P	P	P	P
1951	MOHITE AKSHAY MAHADEV	1	P	P	P	P
1952	KADAM CHINMAY DIPAK	1	P	P	P	P
1953	SURYAWANSHI SHUBHAM KUMAR	1	P	P	P	P
1958	ANUSE HARSHADA RAJARAM	1	P	P	P	P
1960	KADAM VISHWAJEET VISHNU	1	P	P	P	P
1961	RANKHAMBE VIHAR MAHADEV	1	P	P	P	P

VRW

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Dept. of Chemistry

A. S. C. College

Ramanandnagar (Burla)

Rayat Shikshan Sanstha's
Arts, Science and Commerce College Ramanandnagar (Burl)
Value added Course Examination, March -2020
Analytical Methods in Chemistry

Day and Date: 15/03/2020
Time: 11 AM to 12 Noon

Total Marks: 50

Que.1. Multiple choice questions

i. all questions are compulsory .

ii. Chose the correct alternative from the following and rewrite the sentence.

1) The travelling distance of mobile phase in TLC is

(A) 2 cm

(B) 1 cm

(C) 2.5 cm

(D) 10 cm

2) In TLC, initially the sample is

A) In contact with mobile phase

B) Not in contact with mobile phase

C) Coated at the level of mobile phase

D) Coated below the level of mobile phase

3) The sample introduction in HPTLC is carried by

A) Goniometry

B) platinum-iridium capillary

C) Densitometry

D) Micropipette

4) Identification of spots on the TLC plate is done by all of the following EXCEPT

A) Spraying with reagents

B) Under microscope

Fluorescence

(1) Fluorescent adsorbent

5) The binder used in the preparation of TLC plates is

A) Monnitol

B) Calcium

C) Dextrose

D) PVP

6). Maximum eluviation is found in?

- (a). E.
- (b). A2.
- (c). Both a and b.
- (d). AB/EB.

7) Size of fine sand is?

- (a). 0.02 – 0.2.
- (b). 0.2 – 2.
- (c). 0.002.
- (d). 0.02 – 0.002.

8). Water holding capacity is low?

- (a). Clay soil.
- (b). Loam soil.
- (c). Gravel.
- (d). Sandy soil.

9). First manufactured fertilizer in India is..?

- (a). SSP.
- (b). DSP.
- (c). Urea.
- (d). Phosphate.

10). Recently formed soil order is..?

- a). Histosol.
- b). Entisol.
- c). Alfisol.
- d). Ultisols.

Clay soil should have..?

- (a). 40% clay.
- (b). 20% clay.
- (c). 35% clay.
- (d). 30 % clay.

12. Which sentence is true about batch method ?

- A. It is multiple step process.
- B. It is not used for preparation of the demineralized water.
- C. In this process more than two containers.
- D. This is single step process.

13. Which method are used for preparing of demineralized water?

- A. Gas Chromatography
- B. Batch method (ion exchange)
- C. Mass sepctroscopy
- D. Complexometric Titration

14). Which is not application of ion Exchange ?

- A.It is used for softening of water.
- B.It is used for demineralization of water.
- C.It is used for separation of similar ion in one sample.
- D. It is used in preformulation.

15). Which is application of demineralized water ?

- A. Biological studies
- B. conductance experiment
- C. A and B
- D. None of the above

16). Which is not ion exchange technique ?

- A. Batch method
- B. Column method
- C. Paper Chromatography

A and B

17). Tungsten lamp filament has required how much temperature ?

- A. 2000k
- B. 3000k
- C. 4000k
- D. 5000k

18). How much range wavelength is transmit by silicate glass ?

- A. 100 nm to 200 nm
- B. 200nm to 300 nm
- C. 300 nm to 350 nm
- D. 10nm to 40 nm

19). what is role of slit in uv-visible spectroscopy ?

- A. Monochromatic radiation to polychromatic radiation.
- B. Polychromatic radiation to monochromatic radiation.
- C. A and B
- D. None of this

20). Which radiation source has electrode in its construction ?

- A. Tungsten lamp
- B. Hydrogen discharge lamp
- C. Xenon Discharge Lamp
- D. Mercury lamp

21). Which device is used to isolate the radiation of the desired wavelength from wavelength of the continuous spectra ?

- A. Monochromator
- B. Radiation source
- C. Recorder
- D. None of this

22). In which Chromatography s.p. is more polar than m.p. ?

- A. Ion exchange
- B. Liquid liquid Chromatography
- C. Reversed chromatography
- D. None of the above

23). Which force is involved in the Chromatography ?

Hydrogen bonding

- B. London force
- C. Electric static force
- D. All of the above

24). Which technique is also known as colour writing ?

- A. NMR
- B. Mass spectroscopy
- C. Chromatography
- D. All of the above

25). Non Hazardous substitution for RIA is

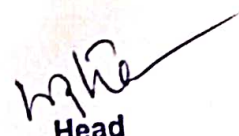
- A. Uv
- B. HPLC
- C. NMR
- D. None of the above

YRS

Rayat Shikshan Sanstha's
 Arts, Science and Commerce College, Ramanandnagar (Burli),
 Department of Chemistry
 Year: 2019-2020
 Value Added Course on
 Analytical Methods in Chemistry
 Result

Roll No	Name of Students	Marks (50)
1851	ARBUNE POOJA MANSING	44
1852	AVATE ROHIT KUMAR	42
1853	BANSODE RAKESH ASHOK	40
1854	BUCHADE CHAITANYA DILIP	38
1855	DESHMUKH ROHIT RAMESH	40
1856	DESHMUKH SWAPNIL JALINDAR	42
1857	EDAKE ROHIT ASHOK	44
1858	GUDMANI SUNIL ASHOK	46
1859	GULAVANI PURUSHOTTAM PANDUR	48
1860	JADHAV AKANKSHA CHANDRAKANT	42
1861	JADHAV AKASH SANTOSH	40
1862	JADHAV ANIKET SHANKAR	42
1863	JADHAV BHAKTI JALINDAR	46
1864	JADHAV ROHIT CHANDRAKANT	40
1865	JADHAV SHRADDHA SANJAY	44
1866	JADHAV SHUBHAM SARANG	46
1867	JADHAV SOURABH SANJAY	42
1868	JADHAV SUSHIL MAHADEV	44
1869	JADHAV VISHWJEET ASHOK	38
1870	KABUGADE SOMNATH DINKAR	36
1871	KADAM OMKAR SHARAD	44
1872	KADAM ROHIT SHASHIKANT	42
1873	KUMBHAR AVINASH ASHOK	46
1874	KUMBHAR OMKAR SANJAY	44
1875	MALGAVAKAR ROHAN MANOJ	42
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1877	MANE AISHWARYA SAMBHAJI	44
1878	MANE NITEEN SANJAY	40
1879	MANE SANSKRUTI TANAJI	42
1880	MOHITE AKASH APPASAHEB	44
1881	MOHITE RUPALI SANTOSH	46
1882	MOHITE VIJAY RAGHUNATH	48
1883	MUJAWAR MUSKAN DASTGIR	38

	NALAWADE SHRIDHAR NIVAS	40
1885	NIKAM AMRUTA VASANT	42
1886	PATIL ASHITOSH ANIL	42
1887	PATIL KISHOR NIVAS	42
1888	PATIL PRITHVIRAJ SANJAY	46
1889	PATIL RUTUJA ARVIND	44
1890	PATIL SAMARTH UTTAM	42
1891	PAWAR MAYURI ASHOK	40
1892	PAWAR PRIYAKA SURESH	38
1893	PAWAR SAURABH SANJAY	40
1894	PAWAR SHUBHAM ASHOK	40
1895	SALUNKHE ANKITA HANMANT	42
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1901	SURYAWANSHI Sampada Laxman	42
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1961	RANKHAMBE VIHAL MAHADEV	46


 Head
 Dept. of Chemistry
 A. S. C. College
 Ramanandnagar (Burla)

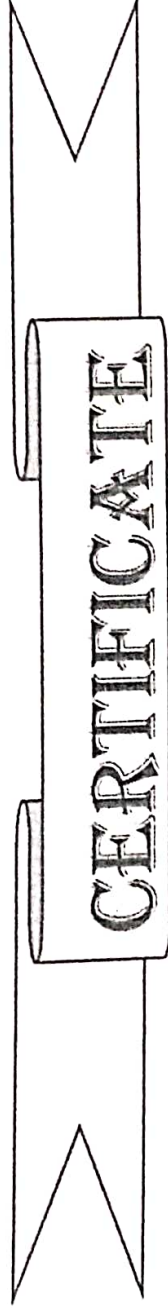


CERT. NO.
AMC - 00

Rayat Shikshan Sanstha's

Arts, Science and Commerce College, Ramanandnagar (Burl)

Tal: Palus, Dist: Sangli, Pin: 416 308



This is to certify that has successfully completed the value added course on "Analytical Methods In Chemistry" from Dec. 2019 to Feb. 2020 with Grade. The course was conducted by the department of Chemistry in the academic year 2019-20, ASC College, Ramanandnagar (Burl), Tal- Palus, Dist: Sangli -416308 (Maharashtra.)

Course Coordinator

Head,
Department of Chemistry

**Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burli),
Tal.-Palus, Dist. - Sangli.**

**Department of Chemistry
Year: 2019-2020**

**Value Added Course on
Analytical Methods in Chemistry**

The Department of Chemistry conduct the value added self-finance course "Analytical Methods in Chemistry". The duration of this course is three months. In this year 61 students admitted for this course. The course is for the 100 marks. In this course we thought three papers viz.

1. Chromatography
2. Spectrophotometry
3. Qualitative and quantitative Aspects of analysis

This course is successfully completed by the B.Sc. Part III students in the academic year 2019-20.

The total no of beneficiaries are 61

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Dept. of Chemistry
A. S. C. College
Ramanandnagar (Burli)**