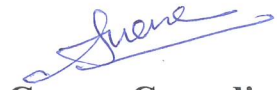


Khandala Vibhag Shikshan Samits

Sushila Shankarrao Gadhave Mahavidyalaya, Khandala

2021-2022

Name Of Department - Chemistry
Name Of Course - Soil & Water Testing
Duration - 3 Months
Assesment Procedure - Theory Paper – 50 Marks
Practical - 50 Marks



Course Co-ordinator

(Miss.Surve S.S.)

Chairman

(Dr.)



Principal

Khandala Vibhag Shikshan Smiti's

Sushila Shankarrao Gadhave Mahavidyalaya, Khandala

Supportive Documents For Certificate Course

1. Notice regarding the introduction date of the course.
2. BOS resolution.
3. Syllabus of the course.
4. Course objectives & outcomes.
5. List of enrolled students.
6. Time table.
7. Attendance Sheets.
8. Result of the course.
9. One sample certificate of the pass student.



Soil testing



Date :- 20th April 2022

Khandala Vibhag Shikshan Samitis
Shushila Shankarrao Gadhave Mahavidyalaya ,Khandala

Department Of Chemistry

Notice

All the student are hereby informed that there industrial visit will be arranged to visit at Kisanveer satara sahkari Sakhar Karkhana, Bhujinj & Soil Testing Laboratory visit at Bhujinj on Friday dated 22th April 2022.

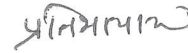
All enrolled students must be present at on the same in time at 11:00am


Head.

Department of chemistry.

S.S.G.M. Khandala





Principal

S.S.G.M. Khandala

Khandala Vibhag Shikshan Samiti's

Sushila Shankarrao Gadhve Mahavidyalay, Khandala

Academic Year -2021 - 22

Department Of Chemistry

Certificate Course :- Soil And Water Analysis

Board of Studies

Sr.No	Name of Member	College	Designation
1	Dr.Bhoite P.H.	Department of Chemistry Kisanveer Mahavidyalaya, Wai	Chairman
2	Prof.Kamale U. B	Assit.Prof Kisanveer Mahavidyalaya, Wai,	Member
3	Asst. Prof. Surve S.S	H.O.D.Chemistry Sushila Shankarrao Gadhve Mahavidyalaya, Khandala,	Member
4	Asst. Prof. Shinde R.A	Asst. Prof Sushila Shankarrao Gadhve Mahavidyalaya, Khandala,	Member
5	Asst.Prof.Kalokhe A.P	Asst.Prof Sushila Shankarrao Gadhve Mahavidyalaya, Khandala,	Member



Syllabus

Certificate course in Soil and Water analysis:

Max. Marks : 50

Part I: Soil Analysis



Unit I: Introduction to Soil Science

Definition of Soil as a natural body, Soil Components inorganic and organic solids, Types of Soils & Basic Concepts.

Properties of Soil:

Introduction to properties of Soil:

A) Physical Properties :-

Soil Texture and Structure, Temperature, Colour, Properties of Soil Mixture Particle Density.

B) Chemical Properties :-

Chemistry of Clays, Ionic Exchange, Acidity, Alkalinity, pH, Salinity, Reactions in Liming and Acidification.

C) Biological Properties :-

Soil Organic Matter, C:N Relationships, N-Transformation, Soil Organisms, Sulfur Transformation.

Books Recommended :

1. Soils and soil fertility, Troch, F.R. And Thompson, L.M. Oxford Press.
2. Fundamentals of soil science, foth, H.D. Wiley Books.
3. Soil Science and Management, Plaster, Edward J., Delmar Publishers.
4. Principles of Soil Chemistry (2Wed.) Marcel Dekker Inc., New York.

Unit II: Soil Testing & Analysis

Unit I: Sample Collection and Processing

Purpose of Soil testing and analysis, selection of field, Method of Soil Sample collection Methods of soil sample processing, precautions during soil collection & processing, Preservation labeling and Storage of soil samples

Practicals

1. Visit to Soil Testing Laboratory & Report writing.
2. Visit to Farmers Fields for Collection of Soil Samples, identification of nutrient deficiency Symptoms in Crop.
3. Preparation of Various Chemical reagents required for soil testing.
4. Processing of Soil Sampling for analysis
5. Determination of PH of soil sample using PH meter
6. Determination of Electrical Conductivity of Soil Sample using Electrical Conductivity meter.
7. Determination of Organic Carbon by wet Oxidation method.
8. Determination of available Nitrogen from Soil Sample.
9. Determination of available phosphorus from soil sample.

Reference Books:

1. Introduction To soil laboratory manual: j.j. harsett stipes
2. Introduction To soil science laboratory manual: palmer & troch

Part II: Water Analysis

Unit III: Introduction to Water analysis .

Types of Water, Water pollutants, role of water testing for environment, Uses of water analysis.

Unit IV: Introduction to Water analysis, Types of Water, Water pollutants, role of water testing for environment, Uses of water analysis.

Temp, Turbidity, Acidity, Alkalinity, Biological oxygen demand (BOD), Conductivity and specific conductance, Chemical oxygen demand (COD), Residual Chlorine, Dissolved oxygen, Fluoride, Hardness, Total nitrogen, pH, Phosphorus, Total solids (TS), Total dissolved solids (TDS), Total suspended solids (TSS), Sodium, Potassium.

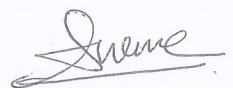
Practicals

- 1) To determine hardness of water.
- 2) To determine P^H of given water sample.
- 3) To determine alkalinity of water.
- 4) To determine TDS of given sample of water.

Reference Book:

Manual for analysis of water

This proposal is placed before IQAC of Sushila Shankarrao Gadhave Mahavidyalaya, Khandala for syllabus approval.


course coordinator

S.S. Surve



Principal

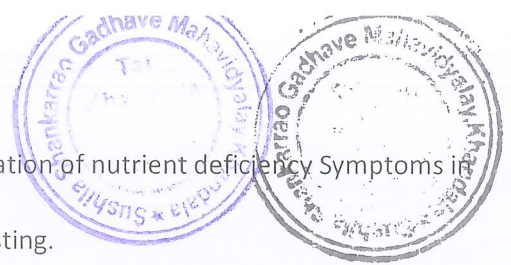
Dr. S. K. Khandala

Secretary

K.V.S.S. Khandala

IQAC

S.R. Majgaonkar



Khanadala Vibhag Shikshan Samiti's
Sushila Shankarrao Gadhave Mahavidyalaya, Khandala
Department Of Chemistry
Certificate course in Soil and Water Analysis



Sushila Shankarrao Gadhave Mahavidyalaya, Khandala and IQAC department in its meeting decided to introduce self finance certificate course in **Soil and Water Analysis** for academic year 2018-19. This course will continue for next three years.

Objectives of the Course:-

1. To develop basic understanding regarding soil testing in the students.
2. To introduce them with macro and micro nutrients for soil.
3. To enhance their skills about water analysis.
4. To propagate the importance of the course for farmers.

Instructional Design:-

This course includes theory classes, field Visit.

Course Structure and Examination Scheme:-

Course No.	Course Name	Contact Classes (Hour)	Laboratory Experiment (Hour)	Total Marks
1	Soil and Water analysis	10	20	50

Quality Assurance Mechanism:

The quality of the course will be ensured through continuous evaluation of feedback from students and course coordinator by IQAC department of the College.

Khandala Vibhag Shaikshan samiti

Sushila Shakarrao Gadhave Mahavidyalaya Khandala

Department of Chemistry

Short term Course

Certificate Course in Soil & Water Analysis

Assesment & Evaluation



.....

Theory (50)

Quesation paper including 50 marks of objective question.

Fill in the Blanks

Oral Test (10)

Assignments (20)

Project (20)

Grades:

Percentage	Grade
Below 40%	F (Fail)
40-49 %	P (Pass)
50-59 %	C (Average)
60 - 69 %	B (Good)
70 – 79 %	A (Very Good)
80 – 89 %	A+ (Excellent)
90 – 100 %	O (Outstanding)

Short Term Course : Soil and Water Analysis



Roll No.	Student Name
1	MANE UTKRANT CHANDRASHEKHAR
2	PAWAR GITANJALI MOHAN
3	DESHMUKH OMKAR PRASHANT
4	YEWALE AKASH SUBHASH
5	ITHAPE RUTIK SUDHAKAR
6	BARKADE APURVA RAJENDRA
7	KACHARE RAHUL SUBHASH
8	MULANI SAHIL FAIYYAJAHAMAD
9	GADHAVE ANUSHKA DILIP
10	SHELAR RUTUJA RAMESH
11	DHAMAL AKSHAY AVINASH
12	KUMBHAR SUSHANT KRUSHNA
13	TALWAR HARSHAD MAHADEV
14	PADALE GAURAV MOHAN
15	TALWAR AKSHAY BALASAHEB
16	DHAYGUDE YOGESH SOMAJI
17	DIXIT ADITYA PARSHURAM
18	BAVANE SIDHARTH MACHINDRA
19	NEVASE SHUBHAM BALKRUSHNA
20	LOHAR PRAMILA PRAKASH
21	SHINDE AISHWARYA SURESH
22	PAWAR MRUNALINI YASHWANT
23	PAWAR PRAJAKTA ANIL
24	KHOMANE VAISHNAVI SURESH
25	RAUT RUSHIKESH VIJAY
26	NEVASE SANKET SAMPAT
27	NEVASE VIKRANT MAHADEV
28	MAHANGARE NIKITA SANTOSH
29	DUDHANE SANDIP MOHAN
30	PITHE HARSHAD CHAURANGNATH

Khandala Vibhag Shikshan Samiti's

Sushila Shankarrao Gadhave Mahavidyalaya Khandala

Time Table (Year 2021-22)

Short Term Course : Soil and Water Analysis



Sr.No.	Date	Teacher Name	Lecture	Practical
1	04/04/2022	Asst.Prof.More S.S.	8:30 to 9:30 am	
2	05/04/2022	Asst.Prof.Shinde R.A.	8:30 to 9:30 am	
3	06/04/2022	Asst.Prof.Surve S.S.		8:30 to 11:30 am
4	07/04/2022	Asst.Prof.Kalokhe A.P.	8:30 to 9:30 am	
5	08/04/2022	Asst.Prof.Yele S.S.	8:30 to 9:30 am	
6	09/04/2022	Asst.Prof.More S.S.		8:30 to 11:30 am
7	11/04/2022	Asst.Prof.Kalokhe A.P.	8:30 to 9:30 am	
8	12/04/2022	Asst.Prof.Shinde R.A.	8:30 to 9:30 am	
9	16/04/2022	Asst.Prof.Surve S.S.		8:30 to 11:30 am
10	18/04/2022	Asst.Prof.Yele S.S.	8:30 to 9:30 am	
11	19/04/2022	Asst.Prof.Kalokhe A.P.	8:30 to 9:30 am	
12	20/04/2022	Asst.Prof.Surve S.S.		8:30 to 11:30 am
13	21/04/2022	Asst.Prof.More S.S.	8:30 to 9:30 am	
14	23/04/2022	Asst.Prof.Yele S.S.	8:30 to 9:30 am	
15	25/04/2022	Asst.Prof.Shinde R.A.		8:30 to 11:30 am

Sune
CO-ordinator.

Sushila Shankarrao Gadhave Mahavidyalaya Khandala

Attendance Sheet 2021 - 22

Short Term Course : Soil and Water Analysis

Roll No.	Student Name	4/1/22	5/1/22	6/1/22	7/1/22	8/1/22	9/1/22	10/1/22	11/1/22	12/1/22	13/1/22	14/1/22	15/1/22	16/1/22	17/1/22	18/1/22	19/1/22	20/1/22	21/1/22	23/1/22	24/1/22	
1	MANE UTKRANT CHANDRASHEKHAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	PAWAR GITANJALI MOHAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	DESHMUKH OMKAR PRASHANT		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	YEWALE AKASH SUBHASH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	ITHAPE RUTIK SUDHAKAR	P	P		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	BARKADE APURVA RAJENDRA	P		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	KACHARE RAHUL SUBHASH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	MULANI SAHIL FAIYYAJAHAMAD	P		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	GADHAVE ANUSHKA DILIP	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	SHELAR RUTUJA RAMESH	P		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	DHAMAL AKSHAY AVINASH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	KUMBHAR SUSHANT KRUSHNA	P	P		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	TALWAR HARSHAD MAHADEV	P		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	PADALE GAURAV MOHAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	TALWAR AKSHAY BALASAHEB	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P



Shivaji University, Kolhapur

Result 2021 -2022

Course Name - Soil & Water Analysis
Center Name - Sushila Shankarrao Gadhave
Mahavidyalaya Khandala



Date & Time -

Total Students - 30

Roll No	Student Name	Marks	Percentage	Grade
1	MANE UTKRANT CHANDRASHEKHAR	33	66%	B
2	PAWAR GITANJALI MOHAN	31	62%	B
3	DESHMUKH OMKAR PRASHANT	36	72%	BA
4	YEWALE AKASH SUBHASH	38	76%	A
5	ITHAPE RUTIK SUDHAKAR	38	76%	A
6	BARKADE APURVA RAJENDRA	36	72%	A
7	KACHARE RAHUL SUBHASH	36	72%	A
8	MULANI SAHIL FAIYYAJAHAMAD	33	66%	B
9	GADHAVE ANUSHKA DILIP	34	68%	B
10	SHELAR RUTUJA RAMESH	39	78%	A
11	DHAMAL AKSHAY AVINASH	31	62%	B
12	KUMBHAR SUSHANT KRUSHNA	39	78%	A
13	TALWAR HARSHAD MAHADEV	37	74%	A
14	PADALE GAURAV MOHAN	35	70%	A
15	TALWAR AKSHAY BALASAHEB	39	78%	A
16	DHAYGUDE YOGESH SOMAJI	28	56%	C
17	DIXIT ADITYA PARSHURAM	36	72%	A
18	BAVANE SIDHARTH MACHINDRA	28	56%	C
19	NEVASE SHUBHAM BALKRUSHNA	38	76%	A
20	LOHAR PRAMILA PRAKASH	34	68%	B
21	SHINDE AISHWARYA SURESH	34	68%	B
22	PAWAR MRUNALINI YASHWANT	36	72%	A
23	PAWAR PRAJAKTA ANIL	39	78%	A
24	KHOMANE VAISHNAVI SURESH	37	74%	A
25	RAUT RUSHIKESH VIJAY	39	78%	A
26	NEVASE SANKET SAMPAT	42	84%	A
27	NEVASE VIKRANT MAHADEV	41	82%	A
28	MAHANGARE NIKITA SANTOSH	39	78%	A
29	DUDHANE SANDIP MOHAN	40	80%	A
30	PITHE HARSHAD CHAURANGNATH	35	70%	A

Suene

CO - coordinator

