



Maratha Vidya Prasarak Samaj's
**G.M.D. Arts, B.W. Commerce
& Science College, Sinnar**

Tal. Sinnar, Dist. Nashik - 422 103 (M.S.) INDIA

**Best College Award by Savitribai
Phule Pune University 2012-13**

Dr. P. V. Rasal
(M.A., LL.B., Ph.D.)

Member : B.O.S. (Psychology)
Savitribai Phule Pune University

E-mail : rasalpundlik@gmail.com

**Affiliated to Savitribai Phule Pune
University ID No. : PU/NS/ASC/013/(1969)**

Junior College No. J.13.13.001

HTE Sevaarth ID - 06220100119_AST AISHE - C - 41292

Ref. No.

Date : 08/1/2024

NOTICE

All the students from Arts, Commerce and Science faculty are hereby inform that Chemistry department has started Certificate Course in "SOIL AND WATER ANALYSIS". Interested students should contact following teaching staff upto 15/01/2024.

- 1) Mr. R. D. Khurche (Art's Department)
- 2) Mr. P. L. Gaikwad (Commerce Department)
- 3) Miss G. B. Handge (Science Department)

(Note- Students will get admission on first come first basis)

Course Fee- 700/-

Anelita
Miss A. M. Rayate

Co-ordinator

Gaware
Prof. Dr. M. R. Gaware

HEAD
DEPARTMENT OF CHEMISTRY
**G.M.D. Arts, B.W. Commerce
and Science College, Sinnar**

Rasal
Dr. P. V. Rasal
Principal
**G.M.D. Arts, B.W. Commerce and
Science College, Sinnar, Dist. Nashik**



Maratha Vidya Prasarak Samaj, Nashik
G. M. D. Arts, B.W. Commerce and Science College, Sinnar.

Department of Chemistry
Certificate course in "Soil and water analysis"

Enrollment List
2023-2024

Sr.No.	Name of the Student	Class	Mobile No.	Email
1	Jadhav Harshada Ashok	T.Y.B.Sc	7620873745	harshadajadhav805@gmail.com
2	Sonawane Harshad Arvind	T.Y.B.Sc	9371897898	sharshad2003@gmai.com
3	Pawar Priti Keshav	T.Y.B.Sc	9623295898	jayapawar132@gmai.com
4	Gadekar Priyanka Hiranman	T.Y.B.Sc	8767754928	gadekarpriyanka@gmail.com
5	Sonavane Avantika Pankaj	T.Y.B.Sc	9356209942	avantikasonawane99@gmail.com
6	Khade Dipali Somnath	T.Y.B.Sc	9763294439	khadesomanath@gmail.com
7	Gosavi Vaishanvi Kashinath	T.Y.B.Sc	8767375559	vaishanvi17@gmail.com
8	Dhamale Punam Ramkrushna	T.Y.B.Sc	9834918299	ramkrushnadhamale@gmail.com
9	Malpathak Atharva Ravindra	T.Y.B.Sc	7972872113	atharvamalpathak123@gmail.com
10	Adhav Akanksha Sahebrao	T.Y.B.Sc	7066118927	sahebraoadhav42@gmail.com
11	Sathe Vishal Balu	F.Y.BA	9022384389	sathevishal187@gmail.com
12	Dhongade Dattatray Appa	T.Y.B.Sc	7840954075	dattadhongade12@gmail.com
13	Rathod Vivek Vitthal	T.Y.B.Sc	9529977405	vivekvvrathod1401@gmail.com
14	Raut Akshay Sanjay	T.Y.B.Sc	7798762860	rautakshay0353@gmail.com
15	Kalokhe Vaishali Rajendra	T.Y.B.Sc	9604642436	vaishalikalakhe501@gmail.com
16	Kharat Tejaswini Dilip	T.Y.B.Sc	8956967615	tejasainikharat2003@gmail.com
17	Kushare Sachin Navath	T.Y.B.Sc	9529709518	kusharesaching@gmail.com
18	Sangale Dnyaneshwar Khandu	T.Y.B.Sc	9607403503	sangale9604278418@gmail.com
19	Kokate Prachi Subhash	T.Y.B.Sc	9067517570	kokatep394@gmail.com
20	Kokate Kaveri Rajendra	T.Y.B.Sc	7083350090	kaverikokate5@gmail.com

Aneeta

Miss. A.M.Rayate

Coordinator

Pravara

Prof. (Dr.) M. R. Gaware

HEAD

DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar

Rasal

Dr. P. V. Rasal

Principal

G.M.D. Arts, B.W. Commerce and
Science College, Sinnar, Dist.Nashik



Maratha Vidya Prasarak Samaj, Nashik
G. M. D. Arts, B.W. Commerce and Science College, Sinnar.
Certificate course in soil and water analysis
Attendance 2023-2024

Sr. No	Name of the Student	24/2/24	26/2/24	27/2/24	29/2/24	1/3/24	2/3/24
1.	Jadhav Harshada Ashok	Harshada	Harshada	Harshada	Harshada	Harshada	Harshada
2.	Sonawane harshad arvind	Harshad	Harshad	Harshad	Harshad	Harshad	Harshad
3.	Pawar priti keshav	Ab	Ab	Ab	Ab	Ab	Ab
4.	Gadekar Priyanka hiran	Priyanka	Priyanka	Priyanka	Priyanka	Priyanka	Priyanka
5.	Sonavane Avantika Pankaj	sonavane	sonavane	sonavane	sonavane	sonavane	sonavane
6.	Khade Dipali Somnath	Ab	Ab	Ab	Ab	Ab	Ab
7.	Gosavi Vaishanvi Kashinath	Ab	Ab	Ab	Ab	Ab	Ab
8.	Dhamale Punam Ramkrushna	Ab	Ab	Ab	Ab	Ab	Ab
9.	Malpathak Atharva Ravindra	Atharva	Atharva	Atharva	Atharva	Atharva	Atharva
10.	Adhav Akanksha Sahebrao	Ashav	Ashav	Ashav	Ashav	Ashav	Ashav
11.	Sathe Vishal Balu	Vishal	Vishal	Ab	Ab	Ab	Ab
12.	Dhongade Dattatray Appa	Datta	Datta	Datta	Datta	Datta	Datta
13.	Rathod Vivek Vitthal	Vivek	Vivek	Vivek	Vivek	Vivek	Vivek
14.	Raut Akshay Sanjay	Akshay	Akshay	Akshay	Akshay	Akshay	Akshay
15.	Kalokhe Vaishali Rajendra	Kalokhe	Kalokhe	Kalokhe	Kalokhe	Kalokhe	Kalokhe
16.	Kharat tejaswini Dilip	tejaswini	tejaswini	tejaswini	tejaswini	tejaswini	tejaswini
17.	Kushare Sachin navath	Sachin	Sachin	Sachin	Sachin	Sachin	Sachin
18.	Sangale Dnyaneshwar Khandu	Sangale	Sangale	Sangale	Sangale	Sangale	Sangale
19.	Kokate Prachi Subhash	Prachi	Prachi	Prachi	Prachi	Prachi	Prachi
20.	Kokate Kaveri Rajendra	Kokate	Kokate	Kokate	Kokate	Kokate	Kokate

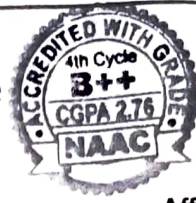


**Maratha Vidya Prasarak Samaj's
G.M.D. Arts, B.W. Commerce
& Science College, Sinnar**

Tal. Sinnar, Dist. Nashik - 422 103 (M.S.) INDIA

ISO 9001 : 2015 Certified College

**Best College Award by Savitribai
Phule Pune University 2012-13**



Dr. P. V. Rasal
(M.A., LL.B., Ph.D.)

Member : B.O.S. (Psychology)
Savitribai Phule Pune University

E-mail : rasalpundlik@gmail.com

Affiliated to Savitribai Phule Pune
University ID No. : PU/NS/ASC/013/(1969)

Junior College No. J.13.13.001

HTE Sevaarth ID - 06220100119_AST AISHE - C - 41292

Ref. No. 2076 / 2023 - 24

Date : 27/2/2024

To,

Mr. Sandip. S. Valvi,

Nashik District Soil Survey and Soil Testing Officer,

Nashik.

Subject: Regarding permission for the visit to Soil Testing Laboratory.

Respected Sir/Madam,

As per above mention subject, Department of Chemistry is willing to arrange visit for T.Y. B. Sc. Students to Soil Testing Laboratory to create awareness and enhance knowledge about soil testing methods and techniques. We request you to grant the permission and inform the convenient date and time as early as possible. Waiting for the positive reply.

Thank you,

Gaware

Prof. (Dr.) M.R. Gaware
HEAD

DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
& Science college, Sinnar

Pandey
जिल्हा नृदासंरक्षण व प्रदूषणकारी अधिकारी
नाशिक जिल्हा नाशिक. / 4

Rasal

Dr. P.V. Rasal
Principal

G.M.D. Arts, B.W. Commerce & Science
College, Sinnar, Dist. Nashik



Maratha Vidya Prasarak Samaj, Nashik

G. M. D. Arts, B.W. Commerce and Science College, Sinnar.

Attendance Visit To Soil Testing Laboratory

Date: 29/02/2024

Sr. No	Name of the Student	Signature
1.	Pawar Priti Keshav	<u>Pawar P.K.</u>
2.	Dhamale Punam Rambhushna	<u>Punam</u>
3.	Tejawini Dilip Kharat	<u>Tejawini</u>
4.	Jadhav Harshada Ashok	<u>Harshada</u>
5.	Kalokhe vaishali Rajendra	<u>Kalokhe</u>
6.	Kokate prachi subhash	<u>Kokate</u>
7.	Kokate kavari Rajendra	<u>Kavari</u>
8.	Gosavi vaishnavi	<u>VGosavi</u>
9.	Khade Dipali	<u>Dipali</u>
10.	Adhav Akansha	<u>Akansha</u>
11.	Sonawane Harshad Arvind	<u>Harshad</u>
12.	Sonawane Avantika parbat	<u>Sonawane</u>
13.	Paut Akshay sanjay	<u>Paut</u>
14.	Rathod vivek vitthal	<u>Rathod</u>
15.	Malpathak Atharna Ravindra	<u>Atharna</u>
16.	Bangale Dnyaneshwa	<u>Bangale</u>
17.	Gradekar priyanka Hiranman	<u>Priyanka</u>
18.	Kushare sachin Narnath	<u>Kushare</u>
19.	Dhongade Datta Appa	<u>Datta</u>
20.		

No. of Boys - 08

No. of Girls - 11

Prof. (Dr.) M. R. Gaware
HEAD

Dr. P.V. Rasal
Principal

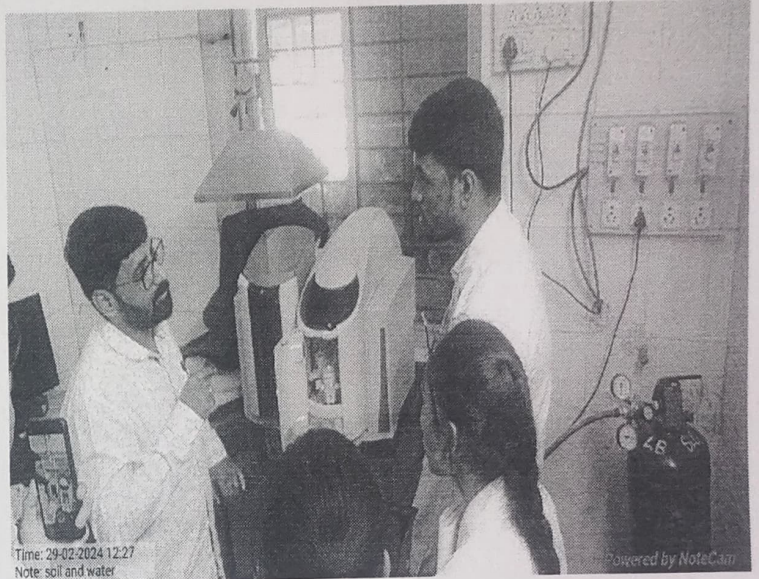
DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar

G.M.D. Arts, B.W. Commerce and
Science College, Sinnar, Dist. Nashik

Internal Quality Assurance Cell (2023-2024)
Report of Event/Programme



Time: 29-02-2024 12:33
Note: soil and water




Time: 29-02-2024 12:27
Note: soil and water

Powered by NoteCam

CO-ORDINATOR
IQAC
G.M.D. Arts, B.W. Commerce
And Science College, Sinnar




Principal
G. M. D. Arts, B. W. Commerce and
Science College, Sinnar, Dist.Nashik



Maratha Vidya Prasarak Samaj's
G.M.D. Arts, B.W. Commerce
& Science College, Sinnar

Tal. Sinnar, Dist. Nashik - 422 103 (M.S.) INDIA

ISO 9001 : 2015 Certified College

Best College Award by Savitribai

Phule Pune University 2012-13



Dr. P. V. Rasal

(M.A., LL.B., Ph.D.)

Member : B.O.S. (Psychology)

Savitribai Phule Pune University

E-mail : rasalpundlik@gmail.com

Affiliated to Savitribai Phule Pune

University ID No. : PU/NS/ASC/013/(1969)

Junior College No. J.13.13.001

AISHE - C - 41292

HTE Sevaarth ID - 06220100119_AST

Ref. No. 2577/2023-24

Date : 27/02/2024

To,

Deputy Director,

Ground Water Surveys and Development Agency,

Nashik.

Subject: Regarding permission for the visit to Water Testing Laboratory.

Respected Sir/Madam,

As per above mention subject, Department of Chemistry is willing to arrange visit for T.Y. B. Sc. Students to Water Testing Laboratory to create awareness and enhance knowledge about water testing methods and techniques. We request you to grant the permission and inform the convenient date and time as early as possible. Waiting for the positive reply.

Thank you,

(Signature)
Prof. (Dr.) M.R. Gaware

CHIEF OFFICER
GROUND WATER SURVEYS AND DEVELOPMENT AGENCY
NASHIK

(Signature)
Dr. P.V. Rasal

Principal

G.M.D. Arts, B.W. Commerce & Science
College, Sinnar, Dist. Nashik

(Signature)
Receval

(Signature)
V.D. Bhalerao

Email : sinnarcollege001@yahoo.com iqac@gmdcollege.in Website - www.gmdcollege.in

Office : (02551) 220099 Fax : (02551) 220114

सहाय्यक रासायनी
विभागीय रासायनिक प्रयोगशाळा
स.वि.यं. नाशिक विभाग, नाशिक



Maratha Vidya Prasarak Samaj, Nashik

G. M. D. Arts, B.W. Commerce and Science College, Sinnar.

Attendance Visit To Water Testing Laboratory

Date: 29/02/2024

Sr. No	Name of the Student	Signature
1.	Tejaswini Dilip Kharat	Tejaswini
2.	Kalokhe Vaishali Rajendra	Kalokhe
3.	Jadhav Harshada Ashok	Harshada
4.	Sonawane Avantika Pankaj	Sonawane
5.	Sonawane Harshad Arvind	Harshad
6.	Kokate Prachi Subhash	Prachi
7.	Gradetae Priyanka Niranjan	Priyanka
8.	Raut Akshay Sanjay	Akshay
9.	Rathod Vivek Vitthal	Vivek
10.	Malpathak Anceva Ravindra	Anceva
11.	Kushare Sachin Navnath	Sachin
12.	Dhongade Datta Appa	Datta
13.	Sangale Dnyaneshwar	Dnyaneshwar
14.	Dhamale Poonam	Poonam
15.	Adhav Akansha	Akansha
16.	Pawar Priti	Priti
17.	Kokate Kaveer	Kokate
18.	Vaishnavi Gosavi	Vaishnavi
19.	Khade Dipali	Dipali
20.		

No. of Boys - 08

No. of Girls - 11

Prof. (Dr.) M. R. Gaware
HEAD

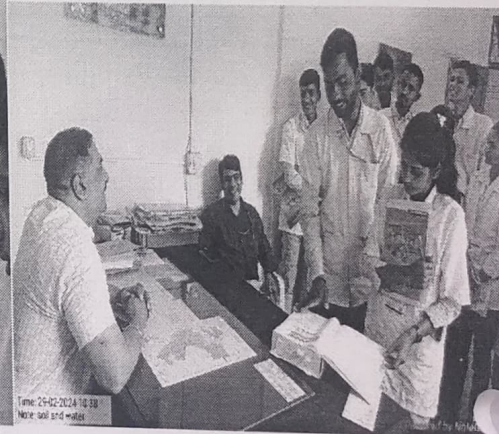
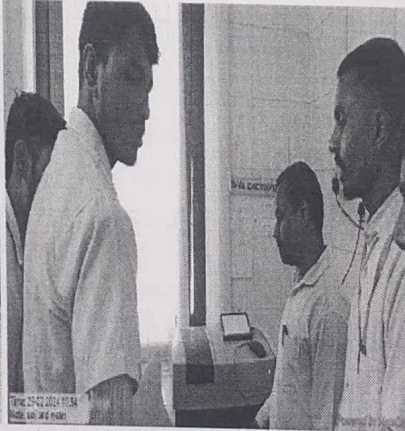
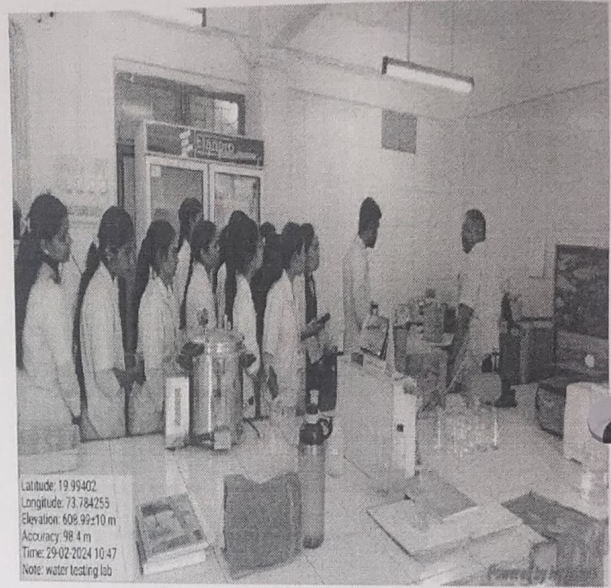
DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar

Dr. P.V. Rasal

Principal
G.M.D. Arts, B.W. Commerce and
Science College, Sinnar, Dist. Nashik

Internal Quality Assurance Cell (2023-2024)

Report of Event/Programme



Quill

CO-ORDINATOR
IQAC
G.M.D. Arts, B.W. Commerce
And Science College, Sinnar

Paul
Principal
G. M. D. Arts, B. W. Commerce and
Science College, Sinnar, Dist. Nashik



Maratha Vidya Prasarak Samaj, Nashik
G.M.D. Arts, B.W. Commerce and Science College, Sinnar.

Notice

All the students registered for “**Certificate course in Soil and water analysis**” are hereby informed that theory examination will be conducted on **Saturday 16/03/2024 at 11.00 am** in M.Sc-II classroom. The examination will be not reconducted for students who fail to appear for examination.

Aneita

Miss. A. M. Rayate
Coordinator

Gaware

Prof. (Dr.) M. R. Gaware
HEAD
DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar

Rasal

Dr. P. V. Rasal
Principal
G.M.D. Arts, B.W. Commerce and
Science College, Sinnar, Dist. Nashik



Maratha Vidya Prasarak Samaj, Nashik
G. M. D. Arts, B.W. Commerce and Science College, Sinnar.
Certificate course in soil and water analysis
Attendance

Date: 16/03/2024

Sr. No	Name of the Student	Signature
1.	Jadhav Harshada Ashok	Harshada
2.	Sonawane harshad arvind	Harshad
3.	Pawar priti keshav	Pawar P. K.
4.	Gadekar Priyanka hiranman	Priyanka
5.	Sonavane Avantika Pankaj	Sonawane
6.	Khade Dipali Somnath	Dipali
7.	Gosavi Vaishanvi Kashinath	V.K. Gosavi
8.	Dhamale Punam Ramkrushna	Punam
9.	Malpathak Atharva Ravindra	Atharva
10.	Adhav Akanksha Sahebrao	Akhav
11.	Sathe Vishal Balu	Vishal
12.	Dhongade Dattatray Appa	Dattatray
13.	Rathod Vivek Vitthal	Vivek
14.	Raut Akshay Sanjay	Akshay
15.	Kalokhe Vaishali Rajendra	Kalokhe
16.	Kharat tejaswini Dilip	Tejaswini
17.	Kushare Sachin navath	Kushare
18.	Sangale Dnyaneshwar Khandu	Sangale
19.	Kokate Prachi Subhash	Prachi
20.	Kokate Kaveri Rajendra	Kokate

Ananta
Miss. A. M. Rayate
Coordinator

Panare
HEAD
DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar



Maratha Vidya Prasarak Samaj's, Nashik
G.M.D.ARTS, B.W.COMMERCE AND SCIENCE COLLEGE, SINNAR
Certificate course in Soil and Water Analysis
Year- 2023-2024

Marks- 40Marks

Time: - 2 Hr.

Q.1) Tick mark the correct answer

(20M)

- 1) Alkalinity of water is an indication of
- | | |
|-------------------------------|-------------------------------|
| a) Base neutralizing capacity | b) Acid neutralizing capacity |
| c) Quantity of base present | d) quality of base present |

- 2) Mixed indicator is a combination of
- | | |
|---------------------------------------|--|
| a) Bromocresol blue and methyl orange | b) Bromocresol green and methyl red |
| c) Bromocresol blue and methyl red | d) bromocresol green and methyl orange |

- 3) Alkalinity is present due to all except
- | | |
|---------------|---------------|
| a) Bromomates | b) Phosphates |
| c) Silicates | d) Chloride |

- 4) Saline soil can reclaiming by using
- | | |
|---------------|-------------|
| a) Lime stone | b) Dolomite |
| c) Gypsum | d) None |

- 5) Urea fertilizer contain nitrogen in amide form is an
- | | |
|----------|----------|
| a) 21% N | b) 46% N |
| c) 34% N | d) 26% N |

- 6) Soil Analysis provides
- | | |
|---------------------------------|------------------------------|
| a) Fertility status of the soil | b) Plant nutrient deficiency |
| c) Micronutrient deficiency | d) all the above |

- 7) What is ppm?
- | | |
|---------------------------|-------------------------|
| a) Part per meter | b) Parts per million |
| c) Parts per meter square | d) Parts per millimeter |

- 8) Which among the following soil types is the most fertile soil?
- | | |
|---------------|----------------|
| a) Black soil | b) Desert soil |
| c) Peaty soil | d) Muck soil |

- 9) A standard solution is a
- | | |
|---|------------------------------------|
| a) A solution accurately known strength | b) Solution of accurately known pH |
| c) Color solution | d) colorless solution |

- 10) The nitrate concentration in domestic water supplies, is generally limited to
- | | |
|-------|-------|
| a) 10 | b) 15 |
| c) 30 | d) 45 |



11) Carbonates in water produce

- a) Temporary hardness
- b) Permanent hardness
- c) Acidity
- d) Alkalinity

12) Negative impacts of sediments include...

- a) Creating unaesthetic murky water
- b) Covering up fish spawning areas
- c) Blocking available light for aquatic plants
- d) Both A and C
- e) All of the above

13) Which of the following is the best example of a point source of water pollution?

- a) Storm water
- b) Acid rain
- c) Agricultural Runoff
- d) Factory effluent
- e) Residential pesticide runoff

14) Hardness in water is measured by the amount of...

- a) Ca^{2+}
- b) Zn^{2+}
- c) Mg^{2+}
- d) Both a and b
- e) Both a and c

15) In which form is water the purest?

- a) Solid ice
- b) clear liquid
- c) Steam vapor
- d) combination of ice and water

16) What is the alternate name of water?

- a) Azide
- b) Hydroxide
- c) Oxidane
- d) Dihydrogen oxide

17) Maximum N content found in N fertilizer

- a) Urea
- b) Anhydrous ammonia
- c) Sodium nitrate
- d) Ammonium sulphate

18) A well-developed soil have

- a) A-horizon
- b) C-horizon
- c) B-horizon
- d) All of these

19) Cation exchange capacity is expressed as:

- a) Mole/litre
- b) Meq /100 g
- c) Meq /lit
- d) Per cent

20) Which of the following is the simplest of pH meters?

- a) Null-detector type pH meter b) Direct reading type pH meter
c) Digital pH meter d) Modern pH meter



Q.2) Attempt the following (any 4)

(20M)

- 1) Define soil
- 2) Give Water parameters
- 3) Soil properties
- 4) Types of soil
- 5) Objective of soil and water testing

-----**Best Of Luck**-----



Maratha Vidya Prasarak Samaj, Nashik
G. M. D. Arts, B.W. Commerce and Science College, Sinnar.
Certificate course in soil and water analysis

Year- 2023-2024

Sr. No.	Name of the student	Marks Obtained out of 40	Grade
01	Jadhav Harshada Ashok	30	A
02	Sonawane harshad arvind	30	A
03	Pawar priti keshav	31	A
04	Gadekar Priyanka hiranman	28	B
05	Sonawane Avantika Pankaj	27	B
06	Khade Dipali Somnath	34	A
07	Gosavi Vaishnavi Kashinath	33	A
08	Dhamale Punam Ramkrushna	33	A
09	Malpathak Atharva Ravindra	36	O
0	Adhav Akanksha Sahebrao	35	A
11	Sathe Vishal Balu	25	B
12	Dhongade Dattatray Appa	28	B
13	Rathod Vivek Vitthal	34	A
14	Raut Akshay Sanjay	30	A
15	Kalokhe Vaishali Rajendra	28	B
16	Kharat tejaswini Dilip	31	A
17	Kushare Sachin navnath	28	B
18	Sangale Dnyaneshwar Khandu	29	B
19	Kokate Prachi Subhash	31	A
20	Kokate Kaveri Rajendra	28	B

Anshita

Miss.A.M.Rayate
Co-Ordinator

M. Gaware

Prof. (Dr.) M.R.Gaware
HEAD

DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar

Dr. P.V. Rasal

Dr. P.V. Rasal

Principal

G.M.D. Arts, B.W. Commerce and
Science College, Sinnar, Dist.Nashik



M.V. P Samaj's
G.M.D. Arts, B.W. Commerce and Science College,
Sinnar, Dist. Nashik (M.S.)

Soil Analysis Report

- Name : Kokate Kaveri Rajendra
- Address : At post samthane Tail -
sinnar Dis - Nashik.
- Contact number : 9083350090

- 1) Sampling Location : Samthane
- 2) Date of Collection : 13/03/2024
- 3) Bulk Density : 2.32 gm/cm³ (Limit: Below 1.6 gm/cm³)
- 4) Moisture Content : 56.9
- 5) Specific Gravity : 0.5906
- 6) Water holding capacity : 60.3 %
- 6) pH : 8.17 (Range: 0 to 7.0 –Acidic; 8.0 to 14.0 – basic)
- 7) Total Soluble salts : 176 ppm.
- 8) % of total soluble salts : 0.046 %
- 9) Electrical Conductivity : 0.34 x 10⁻³ μS. cm⁻¹
- 10) Calcium Carbonate Content : 50
- 11) Gypsum Requirement : 30822.4 x 10⁻¹⁶ Kg/ha
0.0308224 Kg ha.

Remark:

Prakate
Analyst

Anelita
Checked By

Paware
HOD

HEAD
DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar



M.V. P Samaj's
G. M. D. Arts, B. W. Commerce and Science College,
Sinnar, Dist. Nashik (M.S.)

Water Testing Report

- Name : Kokate Kaveri Rajendra
- Address : At post Somthane Tail -
Sinnar Dist - Nashik.
- Contact number : 7083350090
- 1) Sampling Location : From Home (above address)
- 2) Date of Collection : 02/03/2024
- 3) TDS : 304 ppm (Range: 50-150 ppm)
- 4) pH : 7.95 (Range: 7.0-8.0)
- 5) Electrical Conductivity : $0.36 \times 10^{-3} \mu\text{S. cm}^{-1}$ (Limit $< 5 \mu\text{S. cm}^{-1}$)
- 6) Acidity & Alkanity : acid is absent but alkanity is normally present
- 7) Oxidizable Substance : Absent
- 8) Chloride : ~~Absent~~ present
- 9) Sulphate : Absent
- 10) Calcium : present
- 11) Ammonium : Absent
- 12) Nitrate : Present
- 13) Magnesium : present
- 14) Residue on evaporation : 0.0041% (Limit: Not more than 0.001%)

Remark:

The tested water is from somthane
it's not good for drinking purpose

Prakate

Analyst

Anand

Checked By

Pravara

HOD

HEAD

DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar

Prakate
Recieved



Maratha Vidya Prasarak Samaj's, Nashik
G. M. D. Arts, B.W. Commerce and Science College, Sinnar.

Event Attendance

Name of Programme-"Certificate Distribution Function"

Department of Chemistry

Name of the Coordinator -Miss. A. M. Rayate

Time: 11.30 am onwards

Date: 20/03/2024

Sr. No	Name of the Participants	Sign.
1)	Gadekar Priyanka Hiraman	Priyanka
2)	Kharat Jyashree Dilip	Jyashree
3)	Kalokhe Vaishali Rajendra	Kalokhe
4)	Kokate Raveeraj Rajendra	Rokate
5)	Patwar Priti Keshav	Patwar P.P.
6)	Dhamale Punam Ramkrushna	Punam
7)	Adhav Akanksha Sahebrao	Adhav
8)	Desle Aishwarya Sudhakor	Desle
9)	Gawali Shital Balasaheb	Gawali
10)	Khade Dipali Sumnath	Dipali
11)	Gosavi Vaishnavi Kashinath	V.K. Gosavi
12)	Hadpe Rutuja Kailas	Hadpe
13)	Gurule Divya Bajirao	Gurule
14)	Kasari Rupali Partheminath	Kasari
15)	Kasari Rohini Bhanudas	Kasari
16)	Kasari Vrushali Santay	Kasari
17)	Jadhav Sonali Shalika	Jadhav
18)	Avhad pratiksha Sapan	Pratiksha
19)	Gorde Sejal Ganpat	Gorde
20)	Thorat Ragini Ravindra	R.R. Thorat
21)	Khade Ashvini Dattu	Khade
22)	Singh Ishakumari Ajit	Singh
23)	Kokate Rutuja Dayaram	Kokate
24)	Avhad Priti Bharat	Avhad
25)	Sangale Komal Subhash	Sangale
26)	Khondade Aarti Sunil	Khondade
27)	Thorat Rupali Maruti	Thorat
28)	Guntal Vaishali Kondati	Guntal

No. of Boys - 00

No. of Girls - 28

Gaware
Prof. (Dr.) M. R. Gaware
HEAD

DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar

Rasal
Dr. P.V. Rasal

Principal
G.M.D. Arts, B.W. Commerce and
Science College, Sinnar, Dist. Nashik



Maratha Vidya Prasarak Samaj's, Nashik
G. M. D. Arts, B.W. Commerce and Science College, Sinnar.

Event Attendance

Name of Programme-"Certificate Distribution Function"

Department of Chemistry

Name of the Coordinator -Miss. A. M. Rayate

Time: 11.30 am onwards

Date: 20/03/2024

Sr. No	Name of the Participants	Sign.
1)	Dhonde Dattatray Appa	Datta
2)	Kushare Sachin Nainath	Kushare
3)	Raut Akshay Sanjay	Raut
4)	Sonawane Harshad Arvind	Sonawane
5)	RATHOD VIVEK VITTHAL	Rathod
6)	Sangale Dnyaneshwar Khandy	Sangale
7)	Malpote Atharva Ravindra	Atharva
8)	Vishal Balu Sathe	Vishal
9)	Navale Abhijeet Dattatraya	Navale
10)	Ghumare Krishna Dattu	Ghumare
11)	Andhale Akash Sahebrao	Andhale
12)	Belote Abhijit Kamalakar	Belote
13)	Gurav Aniket Subhash	Gurav
14)	Lohar Krishna Bhausaheb	Lohar
15)	Khule Krishna Vijay	Khule
16)	Shahane Chetan Balasaheb	Shahane
17)	Bhagat Rushikesh Sunil	Bhagat
18)	Sable Jyotibhar Andrasaheb	Sable
19)	Shirole Sadyam Dnyaneshwar	Shirole
20)	Shitke Harshad Shantaram	Shitke
21)	Bhargava Pavan Santu	Bhargava
22)	Jadhav Sachin Dipak	Jadhav
23)	Tile Yash Rajaram	Tile
24)	Pagar Omkar Subhash	Pagar
25)	Satpute Shubham Vilas	Satpute
26)	Ugale Yash Ramesh	Ugale
27)	Ransheware Raksha Jagdish	Ransheware
28)	Ranade Sonam Sitaram	Ranade

No. of Boys - 28

No. of Girls - 02

Prof. (Dr.) M. R. Gaware
HEAD

Dr. P.V. Rasal

DEPARTMENT OF CHEMISTRY
G. M. D. Arts, B.W. Commerce
and Science College, Sinnar

Principal
G. M. D. Arts, B.W. Commerce and
Science College, Sinnar, Dist. Nashik



CERTIFICATE



This is to certify that _____
class _____ has successfully completed “Certificate Course in Soil and
Water Analysis” (2 credits) in academic year 2023-2024 conducted by
Department of Chemistry, M .V. P. Samaj’s G.M.D. Arts, B.W. Commerce
and Science College, Sinnar and has obtained ___ grade.

Miss. A. M. Rayate
Coordinator

Prof. (Dr.) M.R. Gaware
Head

Dr. P. V. Rasal
Principal



CERTIFICATE



SAVITRIBAI PHULE PUNE UNIVERSITY

This is to certify that Malpathak Atharva Ravindra
class T.Y.B.Sc. has successfully completed “Certificate Course in Soil and
Water Analysis” (2 credits) in academic year 2023-2024 conducted by
Department of Chemistry, M .V. P. Samaj’s G.M.D. Arts, B.W. Commerce
and Science College, Sinnar and has obtained 0 grade.

Anchita

Miss. A. M. Rayate
Coordinator

Gaware

Prof. (Dr.) M.R. Gaware
Head

Rasal

Dr. P. V. Rasal
Principal



CERTIFICATE



SAVITRIBAI PHULE PUNE UNIVERSITY

This is to certify that Rathod Vivek Vitthal-----
class T.Y.B.Sc. has successfully completed “Certificate Course in Soil and
Water Analysis” (2 credits) in academic year 2023-2024 conducted by
Department of Chemistry, M .V. P. Samaj’s G.M.D. Arts, B.W. Commerce
and Science College, Sinnar and has obtained A grade.

Anelita

Miss. A. M. Rayate
Coordinator

Gaware

Prof. (Dr.) M.R. Gaware
Head

Rasal

Dr. P. V. Rasal
Principal

2023-2024

No.	Name of Beneficiary	Address.	Mobile No.	Sample Submission Date.	Report Date.	Sig.
1.	Kharat Tejaswini Dilip	Krushna bungalow Vrundavannagar, Sinner.	8956967615	02.03.2024	19.03.2024	<u>Tejaswini</u>
2.	Kalokhe Vaishali Rajendra	At post wavi tal sinner dist: Nashik	9604642486	03.03.2024	29.03.2024	<u>Kalokhe</u>
3.	Gadekar Poojanka Hiranjan	A/P Musalgaon, Kunderwad, Sinner.	8767754928	07.03.2024	19.03.2024	<u>Poojanka</u>
4.	Sathe Viskal Palu	A/P. Ayodhya Nagar Sinner.	922384389	04.03.2024	19.03.2024	<u>Nishu</u>
5.	Sangale Dnyaneshwar Khandu	A/P Tamaswadi, Sol. Vishal.	9807403503	07.03.2024	19.03.2024	<u>Dnyaneshwar</u>
6.	RATHOD VIVEK VITHAL	At. Shanti Nagar, sinner	9529977405	21/03/2024 / 24/04/2024	19/3/2024	<u>Vivek</u>
7.	Malpatkar Atharva Ravindra	Vrundavan Nagar, Sinner	7972872113	23/03/24	19/3/2024	<u>Atharva</u>
8.	Dhorgade Dattatray Appa	At. Siddheshwar Nagar Sinner.	78409541075	13/03/24	19/3/2024	<u>Dattatray</u>
9.	Kushare Sachin Nannath	At: post khopadi B.K. Tal: sinner	9529709518	29/3/2024	29/3/2024	<u>Sachin</u>
10.	Sonawane Avantika Pankaj	At: Post Musalgaon. Tal. Sinner.	9356209942	02/03/2024.	19/03/2024.	<u>Avantika</u>
11.	Sonawane Harshad Arvind	At. P. Musalgaon T. Sinner Dist. Nashik	9371897898	13/03/2024	19/03/2024	<u>Harshad</u>
12.	Raut Akshay Sanjay	At. P. Sarakwadi (Sinner)	7798762860	02/03/2024	19/03/2024	<u>Akshay</u>
13.	Kokate Prachi Subhash	Ganesh nagar, sinner	9067517570	02-03-2024	19/03/2024	<u>Prachi</u>
14.	Dhamale Punam Ramkumar	At. P - Ghateswadi, Tal - Sinner, Nashik	9834918299	02-03-2024	19-03-2024	<u>Punam</u>
15.	Khade Dipali Somnath	AT. Po. Khambale Tal. Sinner, Nashik	9103294439	02-03-2024	19-03-2024	<u>Dipali</u>



No.	Name of Beneficiary	Address	Mobile No.	Sample submission Date	Report Date	Sign.
16	Adhav Akanksha sahebrao	At. Post Marhal Tal-Sinnar.	7066118927	02-03-2024	19-03-2024	Adhav
17	Gosavi vaishnavi kashinath.	At. post Khahale Tal-sinnar	8767975559	02-03-2024	19-03-2024	V.K. Gosavi
18	Jadhav Harshada Ashok	At. Sinnar Tal-Sinnar	7620873745	02-03-2024	19-03-2024	Harshada
19	Kokate Kaveri Rajendra.	At. Somthane Tal-Sinnar	7083350090	02-03-2024	19-03-2024	Kokate
20	Pawar Priti Keshav	At. Sonambe Tal-Sinnar	9623295898	02-03-2024	19-03-2024	Pawar . p. b.

Pawar
HEAD

DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar

29 2 2024
12:16:27
27

Time: 29-02-2024 12:19
Note: soil and water

Powered by NoteCam



Time: 29-02-2024 11:26
Note: soil and water

Powered by NoteCam



MARATHA VIDYA PRASARAK SAMAJ, NASHIK.
G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE,
SIINAR, NASHIK-422103 (MS), INDIA.
NAAC Re-Accredited 'A' Grade College (CGPA 3.04)

ISO 9001:2015 Certified College

Department of Chemistry



Syllabus of Certificate course in Water and Soil Analysis

Theory :

Unit I- Introduction to Soil analysis, Types of soil, Soil pollutants, Role of soil testing for environment, Uses of soil analysis.

Unit II- Introduction to Water analysis, Types of Water, Water pollutants, Role of water testing for environment, Uses of water analysis.

Practicals :

Part I – Soil Analysis [Compulsory 10]

- 1) To determine P_H of given soil sample.
- 2) To determine nutrient content (NPK) of soil.
- 3) To determine salinity of given soil sample.
- 4) To determine conductivity of soil sample.
- 5) To determine sulphate of soil sample.
- 6) To determine total alkalinity of soil sample.
- 7) To determine soluble carbonates & bicarbonates of soil sample.
- 8) To determine nitrate of soil sample.
- 9) To determine exchangeable Ca of soil sample.
- 10) To determine exchangeable Mg of soil sample.
- 11) To determine exchangeable Na of soil sample.
- 12) To determine exchangeable K of soil sample.



MARATHA VIDYA PRASARAK SAMAJ, NASHIK.
G.M.D. ARTS, B.W. COMMERCE AND SCIENCE COLLEGE,
SIINAR, NASHIK-422103 (MS), INDIA.
NAAC Re-Accredited 'A' Grade College (CGPA 3.04)
ISO 9001:2015 Certified College



Department of Chemistry

Part II – Water Analysis [Compulsory 10]

- 1) To determine temperature, colour, odour & taste of water.
- 2) To determine hardness of water.
- 3) To determine PH of given water sample.
- 4) To determine total alkalinity, carbonates & bicarbonates of water.
- 5) To determine TDS of given sample of water.
- 6) To determine turbidity of water.
- 7) To determine conductivity of water.
- 8) To determine redox potential of water.
- 9) To determine Acidity of water.
- 10) To determine carbon dioxide of water.
- 11) To determine dissolved oxygen of water.
- 12) To determine inorganic phosphorus of water.
- 13) To determine reactive silica of water.
- 14) To determine sulphate, chloride, calcium, magnesium, sodium, potassium of water.
- 15) To determine hydrogen sulphide of water.
- 16) To determine residual chlorine of water.
- 17) To determine oil & grease of water.

Gaware

Prof. Dr. M. R. Gaware

HEAD
DEPARTMENT OF CHEMISTRY
G.M.D. Arts, B.W. Commerce
and Science College, Sinnar

Rasal

Dr. P. V. Rasal

Principal
G.M.D. Arts, B.W. Commerce and
Science College, Sinnar, Dist. Nashik



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.

Instructional Design:-

This course is of one month duration which includes theory classes, field Visit, Assignment and Field Project.

Course No.	Course Name	Contact Classes (Hour)	Laboratory Experiment (Hour)	Internal Marks / Field project	External Marks		Total Marks
					Theory	Practical	
1	Soil and Water analysis	10	20	20	40	40	100

Note: Each student should compulsorily submit Field Project Report not less than 20 pages

Eligibility: All B Sc students are eligible to enroll for the course.

Course Fee: 100/-

No. of Seats: 30

Grading system:- Following Percentage based grading system will be applicable to the course.

Range of % of marks	Grade
90 - 100	O
80 - <90	A+
70 - <80	A
65 - <70	B+
55 - <65	B
45 - <55	C
40 - <45	P
<40	Fail