# KRE Society's Karnatak Arts, Science and Commerce College, Bidar Department of Chemistry

## Value added course on Soil and Water Testing

Course Co-ordinator

Sri. A R Mamane
Head and Associate Professor
Department of Chemistry

500km 105 19/20 W

The Principal,
Karnatak Arts Science and Commerce College, Bidar



Sub: Request to grant permission to start certificate course on "Soil and Water Analysis' for the year 2019-20

Respected Mam,

To.

As per the directions of IQAC and NAAC guidelines, Department of Chemistry would like to start certificate course in "Soil and Water Analysis" from 20 February 2020 for advance learners with Intake capacity 25. In this connection, please permit us to collect the fees of Rs. 200 per head to meet the necessary expenses. This fees will be collected through challan and will be deposited in DCC Back A/C no. 05.

I hope you will permit and do the needful.

D. S. To put if Kalysone

Sincerely

Sill ARD amane
Department of Chemistry
Head Department of Shewlstry

Secretary be forwarded to tembre president!

Secretary be Esociety brown but permiss musto

Start the cookstrate course on Soil and water

Analysis" from 20th Rebruary 2020, her Advant

Cearmer with Intake capacity 25 and permits

to Collect the feel of 4200/- Each Solutary to

meet the necessary Expensioner and pomults

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Vice-pronupper forwarded to the Honfile Gresident Secretary Secking Permission D Strol- a costificate course in "Soil and Water analysis" In chemistry by Callecting B. 200/- Par Student. The I collected amon will be deposited into Dec Bank account No. J18/2/2023 5 ( Pointel account). 1Can saa As Per directors and NAAC fullelines Deflortment of Good Concheristory desirons to start " Certificate Course in "Soril and water analysis" and by Collectory to 2001 per students Student. Kinly hunissom be accorded & start the come by collecty biscop for sheld 72 Beam. A: R. 19 mme to attend · Kalsmai 



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KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR

Estd 1970

(Affiliated to Gulbarga University, Kalaburagi)

College with Potential for Excellence Status Awarded by UGC New Delhi

ISO 9001 : 2015



Date: 22-07-2019

To.

Dx.P. Vithal Reddy

Associate Professor

H.O.D of Chemistry

B.V.B College

Bidar.

Sub: Request to serve on Board of Studies for Add on Course.

Dear Sir,

1 am very happy to inform you that, our institution under Department of Chemistry would like to start an add on course titled "Soil & Water Testing". In this context I am requesting you to serve as Member of Institutional Board of Studies for the above mentioned Course.

The meeting of Institutional BOS for an add on course on "Soil & Water Testing" is convened on 23-07-2019 at IQAC Room, in Karn tak Arts, Science & commerce college. Bidar at 11:30 am.

I hope you will accept this invitation and provide your expertise in development of curriculum for the above mentioned course.

Department of Chemistry Commen College

Principal

Carantek Arts Science &

Commerce College, BIDAR

+ College, Hidas

E-mail: principalkascc@gmail.com

Fax · 08487-226503

Hyderabad Road, Karnataka State - 585401. Fax . 08482-226503

Cell: 9343834635 Visit us @ www.kascc.in.net



## ಕರ್ನಾಟಕ ಕಲಾ, ವಿಜ್ಞಾನ ಹಾಗೂ ವಾಣಿಜ್ಯ ಮಹಾವಿದ್ಯಾಲಯ, ಜಿಂದ್ರರ

## KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR



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Minutes of Meeting of Institutional Board of Studies for

Add-on Course on

Soil and Water Testing

Held on 23rd July, 2019

The institutional BOS meeting of the Department of Chemistry for the add-on course on "Soil and Water Testing" held on 23/07/2019 at IQAC Room at 11:30 am.

#### Institutional BOS

Sl.No	Name	Institute	Designation
1.	- Sri. Ashok Mamane	Head, Department of Chemistry, Karnatak Arts	Chairman
		Science and Commerce	
		College, Bidar.	
7	Sri. Vinod Kumar Mulge	Associate Professor,	Member
Sri. Vinod K	Sit. Villed Rullia. Marge	Department of Chemistry	Internal Expert
3.	Dr.S. B Mashetty	Associate Professor,	Member
٦.	DI.S. B Washerty	Department of Chemistry	Internal Expert
4	Dr. P.Vithal Reddy	Associate Professor HOD of	External Expert
	Dr. 1. Timar Roday	Chemistry , B.V.B College.	
		Bidar	,

In the beginning of the meeting the Chairman of the Institutional BOS welcomed all the members and briefed about the progress of the Department of Chemistry. The members expressed their highly appreciation and satisfaction about the courses and activities of the Department.

#### After the Institutional BOS discussed and resolved the following items

- Item 1. Starting of the add on course on Soil and Water Testing. The BOS discussed the item and resolved to start the add -on course from August, 2019.
- Item 2. Approval of the Syllabus for add-on course. The BOS discussed and approved the syllabus for the add-on course on Soil and Water Testing.

E-mail: principalkascc@gmail.com

Fax: 08482-226503

Hyderabad Road, Karnataka State - 585401. Fax: 08482-226503

Cell: 9343834635 Visit us @ www.kascc.in.net



Save Environment Save Earth





## **ತರ್ನಾಟಕ ಕಲಾ, ವಿಜ್ಞಾನ ಹಾಗೂ ಪಾಣಿ**ಷ್ಠ ಮಹಾವಿಡ್ಯಾಲಯ, ಜೀವರ

### KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR Estd 1970



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Item 3. Criteria for admission, regulation and policies to run the course and exam pattern. The BOS discussed and approved the criteria for admission and resolved that the student should have completed successfully 10+2 with science faculty, should be currently in B.Sc Course with Chemistry as a subject in Karnatak college, Bidar. In addition to this BOS also finalized the rules and regulations to smooth conduct of course and pattern.

Meeting of BOS is concluded with vote of thanks by Sri Ashok Mamane, Head Department of Chemistry.

#### Members present

Sri. Ashok Mamane

of Chemistry Sc. & Comm. College

2. Sri. Vinod Kumar Mulge

Dr. S. B Mashetty

Dr. P. Vithal Reddy

B V.B Degree College

IOAC Co- ordin

L'ammerce College.

E-mail: principalkascc@gmail.com

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Hyderabad Road, Karnataka State - 585401.

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Cell: 9343834635 Visit us @ www.kascc.in.net

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### KRE Society's Karnatak Arts, Science and Commerce College, Bidar Department of Chemistry

### Value added course on Soil and Water Testing

Preamble: Soil and water are one of the most important natural resources for human life. Testing and analyzing soil and water and obtaining some important information about its properties can be used to determine the quality of soil and water. This kind of scientific inquiry tend to the understand the status of soil and water resources which are important for human and agriculture both. Soll analysis is considered as significant tool to understand the nutrient needs of the plants, where as water analysis is important because it identifies contaminants and prevents water-borne diseases.

Bidar district consists of large agriculturist population and hence this curse aimed to equip the students with tools and techniques and water and soil quality analysis by means of basic principles and procedures of chemistry, hence they can satisfy the local needs and social problems of farmers.

#### **Learning Outcomes**

- 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 30 hours duration which includes theory classes, field Visit, Assignment and Field Project.

#### Course Structure and Examination Scheme:-

Total contact hours:

Theory Classes:

10 Hours

Practical Lab Work:

20 Hours

30 Hours

Internal Marks:

Theory: 20 Practical: 20

External Marks:

40 60

Total Marks:

100

Eligibility: Students enrolled in B Sc program of this college

No. of Seats: 25

Dept of CHEMIE BV.B Degree College BIDAR-586408 (K.B.)

Department of Chemistry

Karnatak Arts Sc. & CommonGollege

BIDAR-585401 mm

## KRE Society's

### Karnatak Arts, Science and Commerce College, Bidar **Department of Chemistry**

#### Value added course on Soil and Water Testing

#### 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

- 1) To determine PH of given soil sample.
- 2) To determine nutrient content (NPK) of soil.
- 3) To determine salinity of given soil sample.
- 4) To determine micronutrient content of soil sample.

#### Part II - Water Analysis

- 1) To determine hardness of warter.
- 2) To determine PH of given water sample.
- 3) To determine alkalinity of water.
- 4) To determine TDS of given sample of water.

#### References:

- 1. Manual On Soil, Plant And Water Analysis 1 Jan 2007, by Dhyan Singh (Author),
- 2. Manual for Soil and Water Analysis, P Buurman et al. Backhuys Publishers Leiden, 1996

BV.B Dogree College BIDAR-585408 (K.B.)





College With Potential for Excellence

## Department of Chemistry

Date: 30 - 12 - 2020

#### NOTICE

All the students are hereby informed that, the Department of Chemistry is starting the add-on course on "Soil and Water Testing" from the 06 - 01 - 2021, interested students can enrol their names on are before 5 - 01 - 2021 in the Department of Chemistry.

of the Chemistry/Dep? ument Karnatak Arts, Sc. & Comm. College

BIDAR - 585 401

Principal

Vice-Principal & IQAC. Coordinator

Karnatak Arts, Science & Commerce College, Bidar

## K.R.E.Society's

## Karnatak Arts, Science & Commerce College, Bidar.

## **Department of Chemistry**

List of students admitted to "Add on Course" on soil & water testing.

SINO	Name of the student	Semester
1.	Nandini S	B.Sc IV Sem
2.	Vaishnavi M	B.Sc IV Sem
		B.Sc IV Sem
4.		B.Sc IV Sem
	Sushma A	B.Sc IV Sem
6.	Apoorva R	B.Sc IV Sem
7.		B.Sc IV Sem
8.		B.Sc IV Sem
9	Pallavi Chickbase	B.Sc IV Sem
	Aishwrya R	B.Sc IV Sem
	Kavya S	B.Sc IV Sem
12	Monica S	B.Sc IV Sem
13	Triveni B	B.Sc IV Sem
14.	Kanchan Sajjan	B.Sc IV Sem
15	Pooja Patil	B.Sc IV Sem
	Omar farooq	B.Sc IV Sem
	Renuka S	B.Sc IV Sem
	Usha Manjunath	B.Sc IV Sem
	Soumya S	B.Sc IV Sem
	Aishwarya C	B.Sc IV Sem
21.		B.Sc IV Sem
	Maliha Muskan	B.Sc IV Sem
23.	1 11 Y 11	B.Sc IV Sem
24.	Angelin Kote	B.Sc IV Sem
25.	Pallavi Rajkumar	B.Sc IV Sem

Chemistry Deportment

Karnatak Arts, Sc. & Comm. College

BIDAR - 585 401

Vice-Principal & IQAO. Coordinator

Principal

Karnatak Arts, Science & Commerce College, Bidan



## KRE Society's Karnatak Arts, Science and Commerce College, Bidar



ESTD: 1970

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College with Potential for Excellence

## ADMISSION FORM Certificate/Value added/Skill Development/Diploma/Advance Diploma Courses

Name of the Department Chemistry Year 2021
Name of the Student Nordani
Father's/Guardian's Name Shastonappa
Date of Birth  Date  Month  Year  15  07  3000
Address for Correspondence :
Malogason TIIE DII Bidon.
Semester/Class: BSC TTT9rd Somog 7091.
Register No :
Percentage of previous semester : 25%.
Contact No : 7022873119
E-Mail ID: Show Kay randon & 9 @ g. regil. (m.
Course to be Joined: BSC (CBZ) SK811 do Holoperant.  Add on course on Soll and worden
Nanden:  Hodfepplinator  Chemistry Dep ment  BIDAR - 585 40.  Namataka Arta Sci. & College BiDAR.





College With Potential for Excellence

## Department of Chemistry

Date: 05 - 01 - 2021

### NOTICE

All the students of B.Sc V Sem are hereby informed that, the Department of Chemistry is starting the add-on course on Soil and Water Testing will commence from 06 - 01 - 2021 and are directed to attend the classes as per the time table.

of the Chemistry Depr iment Earnatak Arts, Sc. & Comm. College BIDAR - 585 401

Principal

Vice-Principal & IQAO. Coordinator Karnatak Arts, Science & Commerce College, Bidar

# K.R.E. Society's Karnatak Arts, Science & Commerce College, Bidar. Department of Chemistry

Value added course on soil and water testing

Time – Table 2020 - 2021

Day/Time	9am - 10am	10am - 10:30am	10:30am - 12:30pm
Wed	Theory	Break	Practical
. Thu	Theory		Practical

Head of the
Chemistry Department
Karnatak Arts, Sc. & Comm. College
B I D A R - 585 401

Theory

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SI No.	Name of the student	6/1	7/	13	20	21	27	28	3/2	1/2	10/2	씊		
1	Nandini	P	P	Þ	P	P	P	P	0	P	P	P		
2	Vaishnavi M	9	P	P	A	P	P	P	P	P	(	P		
3	Hema A Sagar	ρ	P	P	þ	A	P	P	P	P	P	P		
4	Neelavati D	P	P	P	A	P	P	P	A	A	P	P		
5	Sushma A	P	P	P	p	P	P	P	P	P	A	P		
6	Apoorva R	A	A	p	p	P	P	P	A	A	A	P		
7	Swati Yanogunde	P	P	P	A	A	P	P	P	ρ	P	P		
8	Ashwini Basavaraj	P	P	P	P	P	P	P	P	P	P	P	E a	
9	Pallavi Chikbase	A	A	P	p	P	P	P	P	P	A	P		
10	Aishwarya R	P	P	P	P	P	A	P	A	A	P	P	**	
11	Kavya S	P	P	P	p	A	P	P	P	P	P	P		
12	Monika S	P	P	Ą	P	P	P	P	ρ	P	P	P	2,777	200
13	Triveni B	P	P	P	P	P	P	A	P	P	P	P		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
14	Kanchan Sajjan	ρ	P	A	P	P	Ð	P	P	P	P	P		

-														
15	Pooja Patil	2	P	A	P	0	P	Į.	e	P	þ	P		
16	Omar Farooq	ρ	P	þ	A	P	P	P	P	P	þ	P		
17	Renuka S	P	P	A	P	A	P	P	P	P	A	P		
18	Usha Manjunath	A	A	A	p	0	P	P	A	A	7	P		
19	Soumya S	P	P	p	A.	P	P	P	P	P	7	P		,
20	Aishwarya C	A	A	10	Þ	P	P	P	A	A	P	P	7 - 7	
21	G Moksha M	C	P	P	P	A	P	P	P	P	4	P		
22	Maliha Muskan	P	P	P	A	P	P	P	P	P	A	P	2	
23	Kartika Jadav	A	A	P	P	ρ	P	P	A	A	þ	P	*	
24	Angelin Kote	P	P	4	B	P	P	P	P	P	4	P		
25	Pallavi Rajkumar	P	P	P	P	P	P	P	P	P	4	P		
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Chemistry Department

Carnatak Arts, Sc. & Comm. College

BIDAR 585 401

Principal

Vice-Principal & IQAO. Coordinator Rarnatak Arts, Science & Commerce College, Principal

Practical

SI No.	Name of the student	21	27	28 1	3/2	42	10/2	14/2	17/2	18.	34				
1	Nandini	þ	P	P	0	0	A	P	P	P	P				
2	Vaishnavi M	p	P	P	0	ρ	A	P	P	P	P	٥.			
3	Hema A Sagar	þ	P	P	A	A	p	P	P	A	P				
4	Neelavati D	þ	P	P	P	P	A	P	P	F	P		¥ .		
5 .	Sushma A	p	P	P	P	P	P	P	P	A	P				
6	Apoorva R	P	P	P	P	P	A	P	P	p	P				
7	Swati Yanogunde	þ	P	P	A	A	P	P	P	7	P	3			
8	Ashwini Basavaraj	12	P	P	A	A	p	P	P	P	f	>			
9	Pallavi Chikbase	P	P	P	P	P	P	P	P	A	F			The second	
10	Aishwarya R	p	P	P	0	P	Þ	P	P	1	A F	2	,		
11	Kavya S	P	F	P	P	P	P	P	12t	0 1	P	P		gjarden 1	
12	Monika S	P	P	P	P	P	F	P	)		A	P			State Communication of the Com
13	Triveni B	P	P	P	P	P	1	P	> 1	2	ŧ	P			
14	Kanchan Sajjan	P	P	P	ρ	ρ	+		P	)	4	P		1	· ·

15	Pooja Patil	Þ	P	P	0	P	P	P	P	A	P			
16	Omar Farooq	P	P	p	0	0	A	P	P	4	A			and the second second
17	Renuka S	þ	P	P	A	A	Þ	P	P	P	P			**Perhadropers
18	Usha Manjunath	AP	P	P	P	P	P	P	P	7	P			
19	Soumya S	P	P	P	P	ρ	P	P	P	P	P			
20	Aishwarya C	P	P	P	ρ	P	p	P	P	P	P		10.00	
21	G Moksha M	P	P	P	A	A	P	P	P	A	P		113	
22	Maliha Muskan	P	P	P	P	ρ	A	P	P	A	P	•		
23	Kartika Jadav	*	P	P	P	P	1	P	P	4	P			
24	Angelin Kote	P	P	P	A	A	P	P	P	A	P	77		
25	Pallavi Rajkumar	p	P	P	P	ρ	Þ	P	P	4	P		1	
Sign of faculty		W	3	3	AR	A		3	3	. Ok	3	-		

Head of the
Chemistry Department
Karnatak Arts, Sc. & Comm. College
B I D A R - 585 401

Principal Principal

Vice-Principal & IQAO. Coordinator Karnatak Arts, Science & Continue.





## **Department of Chemistry**

Date: 22 - 01 -2021

#### NOTICE

All the students enrolled in Add-on course on "Soil and water Testing" are here by informed that, the course Internal examination is scheduled on 29-01-2021 from 11am – 12pm.

Depa-tment Rarnatak Arts, Sc. & Comm. College B I D A R - 585 401

Karnatak Arts, Science & Commerce College, BIDAR.





#### **Department of Chemistry**

### Add on course On Soil & Water Testing

Internal Attendence 2020 - 2021

SI.No	Name of the student	Signature
1	Nandini S	Nandini
2	Vaishnavi M	VAZSHNAVI
3	Hema A Sagar	41.000
4	Neelavati D	Nee lavati
5	Sushma A	Such
6	Apoorva R	DIGNITA
7	Swati Yanagunde	asinto
8	Ashwini Basavaraj	26
9	Pallavi Chickbase	Addai
10	Aishwarya R	Hishworga
11	Kavya S	to V
12	Monika S	Montea
13	Tirveni B	Tienvend
14	Kanchan sajjan	Fonda
15	Pooja Patil	(Stell
16	Omer Farooq	Omer.
17	Renuka S	Ronalde
18	Usha Manjunath	able
19	Soumya S	Counter
20	Aishwarya C	A-V
21	G Moksha M	Smobila
22	Maliha Muskan	achai
23	Kartika Jadav	Jacket
24	Angelin Kote	angella
25	Pallavi Rajkumar	Pallovi

Candidates present - 25

Candidates absent - 00

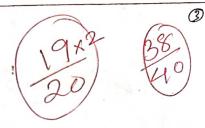
Invigilator

# K. R. E. SOCIETY'S KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR Add-on Course Internal -2020-91 Paper: - Soil and Water Analysis

	Paper; - Soil and V	Vater Analysis .
Time- 1Hour	,	Maximum marks - 20 X2=40

1. The maximum permitted loss of head in a rapid sand filter, is a) 1m b) 2m c) 3m d) 4m
<ul> <li>2. Mud balls may be removed by.</li> <li>a) Breaking and washing b) Washing the filter with a solution of caustic soda</li> <li>c) Removing, cleaning and replacing the damaged sand d) All the above</li> </ul>
3. The lowest outlet sluice in a dam is provided.  a) Below the dead storage b) On the top level of dead storage b) On the top level of useful storage d) At the centre of the dam
<ul><li>4. The strainer type tube well, is unsuitable for.</li><li>a) Coarse gravels b) Fine sandy strata c) Clean gravels d) None of the above</li></ul>
5. Cast iron pipes are generally preferred to, because a) Of moderate cost b) of ease to join c) of longer life d) All the above
6. Which of the following statements is true about the composition of Calcium Carbonate (CaCo <sub>3</sub> ) in soft water?  a) 0 to 30 milligrams of CaCO <sub>3</sub> per litre c) 60 to 90 milligrams of CaCO <sub>3</sub> per litre d) 90 to 120 milligrams of CaCO <sub>3</sub> per litre
7. Which of the following salts are the main causes of temporary hardness?  a) Calcium sulphate b) Magnesium sulphate c) Magnesium chloride d) Magnesium carbonate
8.According to the Geological survey, water with less than 1000 ml/litre of total dissolved solids is .  a) Brine water b) Freshwater c) Slightly saline d) Moderately saline
9. The amount of dissolved solids passing through the filters in the process of filtration is
a) Independent of suspended solids b) Sum of total solids and suspended solids c) Difference between total solids and suspended solids d) All of the above

<ul> <li>10. Which of the following units is used for measuring the turbidity of water?</li> <li>a) EAU Formazin Attenuation Units</li> <li>b) FNU- Formazin Nephelometric Unit</li> <li>c) NTU - Nephelometric Turbidity Units</li> <li>d) All of the above</li> </ul>	
11. Which of the following is not a waterborne disease?  a) Measles b) Typhoid c) Cholera d) Hepatitis	
12. The nitrate concentration in domestic water supplies, is generally limited to a)10ppm b)15ppm c) 30ppm d) 45ppm	
13. Carbonates in water produce. a) Temporary hardness b) Permanent hardness c) Acidity d) Alkanity	
14. Ground water from artiesian walls. a) Contains no suspended materials c) may be saltish and hard b) Contains dissolved salts d) All the above  15. Alum is a. a) coagulant b) Flocculent C) Catalyst d) Disinfectant	
16. Sluice valves are fitted in a distribution system.  a) Along straight length of pipes at suitable intervals c) At the branching off points of sub- mains  b) At the junction of pipes. d) All the above	
17. The ratio of maximum hourly consumption and average hourly consumption of the maximum day, is a) 1.2 b) 1.5 c) 1.8 d) 2.7	
18. If the average daily demand of a city of 50,000 population, is 20 m.l.d., the maximum daily demand is	y
a) 24 mld b) 30 mld c) 36 mld d) 54 mld  19. Aqueducts are generally designed a) circular b) Rectangular c) Horse shoe section d) All of the above	
c) Horse shoe section d) An of the above	
20. Water losses in water supply, is assumed as a) 5% b) 7.5% c) 10% d) 15%	Control of the same
그 됐잖았다. 1. 6세 대한 대한 이 마스에 보고 독점에 세계를 관광하는 것 같아요 함께 이 내내었다.	



Name - Nadine . 08

## K. R. E. SOCIETY'S KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR Add-on Course Internal -2020 -21 Paper; - Soil and Water Analysis

Maximum marks -  $20 \times 2 = 40$ Time-1Hour The maximum permitted loss of head in a rapid sand filter, is b) 2m e) 3m 2. Mud balls may be removed by. b) Washing the filter with a solution of caustic soda a) Breaking and washing c) Removing, cleaning and replacing the damaged sand d) All the above 3. The lowest outlet sluice in a dam is provided. b) On the top level of dead storage a) Below the dead storage b) On the top level of useful storage d) At the centre of the dam 4. The strainer type tube well, is unsuitable for. a) Coarse gravels b) Fine sandy strata c) Clean gravels d) None of the above 5. Cast iron pipes are generally preferred to, because a) Of moderate cost b) of ease to join c) of longer life d) All the above 6. Which of the following statements is true about the composition of Calcium Carbonate (CaCo<sub>3</sub>) in soft water? a) 0 to 30 milligrams of CaCO<sub>3</sub> per litre b) 30 to 60 milligrams of CaCO<sub>3</sub> per litre c) 60 to 90 milligrams of CaCO<sub>3</sub> per litre d) 90 to 120 milligrams of CaCO<sub>3</sub> per litre Z-Which of the following salts are the main causes of temporary hardness? a) Calcium sulphate -b) Magnesium sulphate d) Magnesium carbonate c) Magnesium chloride 8. According to the Geological survey, water with less than 1000 ml/litre of total dissolved solids is . a) Brine water b) Freshwater c) Slightly saline d) Moderately saline 9. The amount of dissolved solids passing through the filters in the process of filtration is called

b) Sum of total solids and suspended solids

d) All of the above

a) Independent of suspended solids

c) Difference between total solids and suspended solids

10. Which of the following units is used for measuring the turbidity of water?  a) EAU Formazin Attenuation Units b) FNU- Formazin Nephelometric Unit c) NTU - Nephelometric Turbidity Units d) All of the above
a) Measles b) Typhoid c) Cholera d) Hepatitis
12. The nitrate concentration in domestic water supplies, is generally limited to a)10ppm b)15ppm c) 30ppm d) 45ppm
13. Carbonates in water produce. a) Temporary hardness b) Permanent hardness c) Acidity d) Alkanity
a) Contains no suspended materials c) may be saltish and hard b) Contains dissolved salts d) All the above
15. Alum is a.  a) coagulant b) Flocculent C) Catalyst d) Disinfectant  16. Sluice valves are fitted in a distribution system.
a) Along straight length of pipes at suitable intervals c) At the branching off points of sub- mains d) All the above
17. The ratio of maximum hourly consumption and average hourly consumption of the maximum day, is  a) 1.2 b) 1.5 c) 1.8 d) 2.7
18. If the average daily demand of a city of 50,000 population, is 20 m.l.d., the maximum daily demand is
a) 24 mld b) 30 mld c) 36 mld d) 54 mld
a) circular b) Rectangular c) Horse shoc section d) All of the above
20. Water losses in water supply, is assumed as a) 5% b) 7.5% c) 10% d) 15%
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## **Department of Chemistry**

## Add on course On Soil & Water Testing

Internal Marks List 2020 - 2021

SI.No	Name of the student	Marks
1	Nandini S	.38
2	Vaishnavi M	36
3	Hema A Sagar	28
4	Neelavati D	30
5	Sushma A	28
6	Apoorva R	30
7	Swati Yanagunde	30
8	Ashwini Basavaraj	30
9	Pallavi Chickbase	34
10	Aishwarya R	34
11	Kavya S	32
12	Monika S	26
13	Tirveni B	30
14	Kanchan sajjan	32
15	Pooja Patil	22
16	Omer Farooq	26
17	Renuka S	26
18	Usha Manjunath	26
19	Soumya S	28
20	Aishwarya C	30
21	G Moksha M	34
22	Maliha Muskan	28
23	Kartika Jadav	36
24	Angelin Kote	32
25	Pallavi Rajkumar	30

Candidates present - 25 Candidates absent - 00

Total - 25





### **Department of Chemistry**

Date: 25 -02 -2021

#### NOTICE

All the students enrolled in Add-on course on "Soil and water Testing" are here by informed that, the course External examination is scheduled on 1/03/2021 from 10am - 11am.

Chemistry Department Karnatak Arts, Sc. & Comm. College BIDAR - 585 401

Commerce College, BIDAR





## Department of Chemistry

## Add on course On Soil & Water Testing

External Exam Attendence 2020 - 2021

SI.No	Name of the student	Signature
The second secon	Nandini S	Control of the Contro
2	Vaishnavi M	VARSHNAVI
3	Hema A Sagar	Hema,
4	Neclavati D	Neelandi
5	Sushma A	Bushma
6	Apoorva R	a Marion
7	Swati Yanagunde	glacate-
8	Ashwini Basavaraj	- GB
9	Pallavi Chickbase	- Fallow
10	Aishwarya R	Jishwarya
11	Kavya S	The V
12	Monika S	Monika
13	Tirveni B	Tionen
14	Kanchan sajjan	Koncton
15	Pooja Patil	Valor
16	Omer Farooq	Green
17	Renuka S	Konaba
18	Usha Manjunath	asha -
19	Soumya S	Sounger
20	Aishwarya C	CAF V
21	G Moksha M	Smoksha
22	Maliha Muskan	taliho
23	Kartika Jadav	Cadal-
24	Angelin Kote	angelin
25	Pallavi Rajkumar	Pallavi,

Candidates present - 25

Candidates absent - 00

Total - 25

Invigilator

Name -

## K. R.E. SOCIETY'S KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR Add-on Course Examination - 2020 - 21 Paper; - Soil and Water Analysis

Tim	0-	111	O1	11
4 4 1 1 1	-			

Maximum marks - 60

1. Earth's body of soil is the known as? a) Pedosphere b) Lithosphere c) Biosphere d) Hydrosphere	, <b>14</b> c
2. Soil science has how many branches of study? a) 4 b) 1 c) 2 d) 3	
3. Which soils are formed from chemical decomposition of rocks? a) Laterite Soils b) Marine deposits c) Black soil d) Alluvial	ali di Santana di Ali Maria di Maria da Maria di Alianda Maria di Maria di Maria di Maria di Maria
4. Which soils are pink or red in colour?  a) Laterite Soils b) Marine deposits c) Black soil d) Alluvial	
5. Which soils are formed by the sediments brought down by the rivers? a) Laterite Soils b) Marine deposits c) Black soil d) Alluvial	a Para Angarangan sa pin Para dalah dalah Angaran
6. Which soil is formed from arid conditions with practically negligible rain a) Marine deposits b) Desert soils c) Black soil d) Alluvial	nfall?
7. Which soils are also called as regur soils? a) Marine deposits b) Desert soils c) Black soil d) Alluvial	
8. Which soil is suitable for the growth of cotton? a) Marine deposits b) Desert soils c) Black soil d) Alluvial	
9. Name the soil with low shearing strength and high compressibility? a) Marine deposits b) Desert soils c) Black soil d) Alluvial	
<ul><li>10. Which of the following is engineering properties of black soils?</li><li>a) High compressibility b) Low bearing capacity c) Low shearing strength</li></ul>	d) All the above.
11. Mineral material from which a soil forms is known as? a) Basic b) Parent c) Raw	d) Main
12. Sedimentary deposits settled in lakes are called a) Lacustrine b) Aeolian c) Calcite d) Feldspar	
13. Which of the following is an example of sediment?  a) Clay, gravel, sand, pieces of shell b) Only Clay c) Only pieces of shell of	d) Only sand
14. Planting different crops each year (corn one year, beans the next) is call a) Terracing b) No Till-farming c) Wind Breakers	led what? d) Crop Rotation

a) Terracing b) No Till-farming c) Wind Breakers d) Crop Rotation
16. What is the name of the layer of soil just under the grass? a) topsoil b) subsoil c) bedrock d) parent rock
17. After digging deeper and deeper, you would eventually hit solid (unweathered) rock, calleda) Humus b) organic material c) subsoil d) bedrock
18. Which soils are usually free of lime and so are very sour?  a) Laterite Soils b) Peat soil c) Black soil d) Alluvial
19. Formation of soil is known as? a) Pedogenesis b) Anthropogenic c) Regoliths d) Mycorrhizal
20. The mixing of the soil by the activities of animals is known as?  a) Anthropogenic b) Regoliths c) Mycorrhizal d) Pedoturbation
21. Alluvium soil is later divided into how many parts?  a) 3 b) 4 c) 1 d) 2  22. Along the Shiwalik foothills, there are alluvial fans having coarse, often pebbly soils. What is the name of the zone?  a) Bhabar b) Regoliths c) Mycorrhizal d) Pedoturbation
23. Black soils are derived from how many types of rocks? a) 5 b) 4 c) 2 d) 3
24. Laterite and Lateritic Soils are suitable for the growth of?  a) Tea b) Coconut c) Rubber d) All the above
25. In how many groups Indian soil is divided? a) 7 b) 8 c) 6 d) 9
26. Indian soils can broadly be divided into how many types? a) 2 b) 3 c) 4 d) 5
27. Tamil Nadu has which type of soil?  a) Laterite Soils b) Red soil c) Black soil d) Alluvial
28. Which soil has acid granites and gneisses, quartzitic and felspathic as its parent rock?  a) Laterite Soils b) Red soil c) Black soil d) Alluvial
29. Which type of soil is found in Andhra Pradesh and Karnataka? a) Saline b) Alkaline Soils c) Black d) Both a & b
30. Which type of soil is in the region of the coastal areas of Orissa and Tamil Nadu, Sunderbans of West Bengal, in Bihar and Almora district of Uttaranchal?  a) Marshy soils b) Red soil c) Black soil d) Alluvial
31. Which of the following are the primary causes of water pollution?  a) Plants  b) Animals  c) Human activities  d) None of these

2 Which of t	the following technic	ques is used for re	ducing the total	dissolved solids (TDS)	in the
vater? Osmosis	b) Ion exchang	ge c) Dist	illation	d) Both b and c	
33.Which of *(a) It is a clea	he following stateme n fuel b) It is a har	ents are true about mful fuel      c) It is	t CNG -Compress a polluting fue	essed natural gas? el d) All of the abo	ve
34.Which of t a) Magnesiun	the following salts is n sulphate b) Magn	the main cause of esium bicarbonate	permanent hare e c) Magnesiun	dness of water? a carbonate d) None o	f the above
35.Which of ta) Afforestati	the following is main ion b) Oil ref	ly responsible for incries c) Pa	the causes of wa	ater pollution? d) Both b and c	
36.Chloroflua) Perfumes	orocarbon are nonfla b) Refrigerato	ammable chemical rs c) Air c	s mainly used in conditioners	d) All of the a	above
37.Which of	the following techniq	ues is used to dete	rmine the conc	entration of odour com	pounds in
the given was a) Settling	b) Flushing	c) Str	ripping	d) Chlorinat	
38.What is that a) Fluorosis	he health effects of ex b) Toothaches	cess fluoride in dr c) Lung disease	inking water? d) Intest	inal infection	
39. Which of a) Osmosis	the following technique b) Ion exchange	ues is used to rem c) Lime softening	ove fluorides fr d) Both b an	om the water bodies? d c	
40. Which of a) Typhoid	the following is a wa b) Cholera c) Dia	terborne disease? rrhoea d) All of	f the above	monen sy a rake ta Si Mulii dala sara sa ta	mokit.
41.The main a) Floods	sources of Arsenic in b) Fertilizers	n water are . c) Industrial wast	te d) Both	b and c	
	reshwater lakes, the a	ilgal productivity	is limited by the	availability cf which c	of the
a) Carbon	b) Nitrogen	c) Phosphorus	d) All of the	e above	
		Septem	The Mar	The first the	
	the following disease b) Trachoma c) C		aused due to po l) All of the abo		
44. Which of in soft water		ents is true about t	the composition	of Calcium Carbonate	e (CaCo <sub>3</sub> )
a) 0 to 30 mi	illigrams of CaCO <sub>3</sub> po nilligrams of CaCO <sub>3</sub> p	er litre b) 3 per litre d) 9	30 to 60 milligra 90 to 120 milligr	ms of CaCO <sub>3</sub> per litre ams of CaCO <sub>3</sub> per litre	evil.
45. Which of a) Calcium s	the following salts as sulphate b) Magnes	re the main causes sium sulphate c)	of temporary h Magnesium chl	ardness? oride d) Magnesium o	carbonate
46.Accordin		irvey, water with l	less than 1000 m	nl/litre of total dissolve	

47. The amount of dissolved solids passing through the a) Independent of suspended solids c) Difference between total solids and suspended solids	filters in the process of filtration is called _ b) Sum of total solids and suspended solids d) All of the above
48. Which of the following units is used for measuring a) EAU Formazin Attenuation Units b) FNU-Fo	
49.Which of the following is not a waterborne disease a) Measles b) Typhoid c) Cholera d) Hep	? atitis
50The maximum permitted loss of head in a rapid a) 1m b) 2m c) 3m d) 4m	d sand filter, is
51. The nitrate concentration in domestic water supp a) 10ppm b) 15ppm c) 30ppm d) 45ppm	lies ,is generally limited to.
52. Carbonates in water produce. a) Temporary hardness b) Permanent hardness	c) Acidity d) Alkanity
53. Ground water from artiesian walls. a) Contains no suspended materials b) Contai c) may be saltish and hard d) All the	ns dissolved salts
54. Alum is a.	에 가장 하는 것이 되었습니다. 
a) coagulant b) Flocculent C) Catalyst d) Disin	efectant.
the state of the s	nectant
55. Sluice valves are fitted in a distribution system.	
<ul><li>a) Along straight length of pipes at suitable intervals</li><li>c) At the branching off points of sub- mains</li></ul>	b) At the junction of pipes.
on points of sub- mains	d) All the above
56. The ratio of maximum hourly consumption and a day, is	verage hourly consumption of the maximum
a) 1.2 b) 1.5 c) 1.8 d) 2.7	
57. If the average daily demand of a city of 50,000 podemand is	opulation, is 20 m.l.d., the maximum daily
a) 24 mld b) 30 mld c) 36 mld	d) 54 mld
58. Aqueducts are generally designed	
	tion d) All of the above
59. Water losses in water supply, is assumed as a) 5% b) 7.5% c) 10% d) 15%	
60. The requirement of water per capita per day, is a) 90 litres b) 120 ligres c) 150 litres d)	400 litres

Name - Nandni . S.

### K. R.E. SOCIETY'S KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR Add-on Course Examination - 2020 - 91 Paper; - Soil and Water Analysis

Time-1Hour	Maximum marks - 60
1. Earth's body of soil is the known as?	
(a) Pedosphere b) Lithosphere c) Biosphere d) Hydrosphere	
2. Soil science has how many branches of study?  a) 4 b) 1 c) 2 d) 3	
Which soils are formed from chemical decomposition of rocks?  (a) Laterite Soils b) Marine deposits c) Black soil d) Alluvial	
4. Which soils are pink or red in colour? (a) Laterite Soils b) Marine deposits c) Black soil d) Alluvial	
5. Which soils are formed by the sediments brought down by the rivers a) Laterite Soils b) Marine deposits c) Black soil d) Alluvial	?
6. Which soil is formed from arid conditions with practically negligible a) Marine deposits (b) Desert soils c) Black soil d) Alluvial	rainfall?
Which soils are also called as regur soils?  (a) Marine deposits b) Desert soils c) Black soil d) Alluvial	
8. Which soil is suitable for the growth of cotton?  (a) Marine deposits b) Desert soils c) Black soil d) Alluvial	
29. Name the soil with low shearing strength and high compressibility?  a) Marine deposits (b) Desert soils (c) Black soil (d) Alluvial	
10. Which of the following is engineering properties of black soils?  a) High compressibility b) Low bearing capacity c) Low shearing stre	ength (1) All the above.
a) Basic (b) Parent c) Raw	d) Main
12. Sedimentary deposits settled in lakes are called  (a) Yacustrine b) Aeolian c) Calcite d) Feldspar	and the
13. Which of the following is an example of sediment?  (a) Clay, gravel, sand, pieces of shell b) Only Clay c) Only pieces of shell	d) Only sand
14. Planting different crops each year (corn one year, beans the next) is a) Terracing  (b) No Till-farming  (c) Wind Breakers	called what? d) Crop Rotation

Als. Making steps on the side of a mountain to slow down water erosion is called what?  a) Terracing  b) No Till-farming  c) Wind Breakers  d) Crop Rotation
16. What is the name of the layer of soil just under the grass?  (a) topsoil b) subsoil c) bedrock d) parent rock
17. After digging deeper and deeper, you would eventually hit solid (unweathered) rock, calleda) Humus b) organic material c) subsoil d) bedrock
18. Which soils are usually free of lime and so are very sour?  (a) Laterite Soils b) Peat soil c) Black soil d) Alluvial
19 Formation of soil is known as? (a) Pedogenesis b) Anthropogenic c) Regoliths d) Mycorrhizal
a) Anthropogenic b) Regoliths C) Mycorrhizal d) Pedoturbation
21. Alluvium soil is later divided into how many parts?  a) 3 b) 4 c) l d) 2  22. Along the Shiwalik foothills, there are alluvial fans having coarse, often pebbly soils. What is the name of the zone?  a) Bhabar b) Regoliths c) Mycorrhizal d) Pedoturbation
23. Black soils are derived from how many types of rocks? a) 5 b) 4 c) 2 d) 3
24. Laterite and Lateritic Soils are suitable for the growth of?  a) Tea b) Coconut c) Rubber d) All the above
25. In how many groups Indian soil is divided?  a) 7 b) 8 6 6 d) 9
26. Indian soils can broadly be divided into how many types? (a) 2 b) 3 c) 4 d) 5
27. Tamil Nadu has which type of soil?  a) Laterite Soils  b) Red soil  c) Black soil  d) Alluvial
28. Which soil has acid granites and gneisses, quartzitic and felspathic as its parent rock?  a) Laterite Soils (b) Red soil (c) Black soil (d) Alluvial
29. Which type of soil is found in Andhra Pradesh and Karnataka? a) Saline b) Alkaline Soils c) Black d) Both a & b
30. Which type of soil is in the region of the coastal areas of Orissa and Tamil Nadu, Sunderbans of West Bengal, in Bihar and Almora district of Uttaranchal?  a) Marshy soils  b) Red soil  c) Black soil  d) Alluvial
31. Which of the following are the primary causes of water pollution?  a) Plants  b) Animals  c) Human activities  d) None of these

the state of the s
Which of the following techniques is used for reducing the total dissolved solids (TDS) in the water?
a) Osmosis b) Ion exchange c) Distillation d) Both b and c
33. Which of the following statements are true about CNG -Compressed natural gas?  (a) It is a clean fuel b) It is a harmful fuel c) It is a polluting fuel d) All of the above
34. Which of the following salts is the main cause of permanent hardness of water?  a) Magnesium sulphate b) Magnesium bicarbonate c) Magnesium carbonate d) None of the above
35. Which of the following is mainly responsible for the causes of water pollution?  a) Afforestation b) Oil refineries c) Paper factories (i) Both b and c
36.Chlorofluorocarbon are nonflammable chemicals mainly used in .  a) Perfumes b) Refrigerators C)Air conditioners d) All of the above
37. Which of the following techniques is used to determine the concentration of odour compounds in
the given water sample? (a) Settling b) Flushing c) Stripping d) Chlorinat
38. What is the health effects of excess fluoride in drinking water?  (a) Fluorosis b) Toothaches c) Lung disease d) Intestinal infection
39. Which of the following techniques is used to remove fluorides from the water bodies?  a) Osmosis
40. Which of the following is a waterborne disease?  a) Typhoid b) Cholera c) Diarrhoca (d) All of the above
41. The main sources of Arsenic in water are .  a) Floods b) Fertilizers c) Industrial waste d) Both b and c
42.In most freshwater lakes, the algal productivity is limited by the availability cf which of the following inorganic ions?
a) Carbon b) Nitrogen c) Phosphorus d) All of the above
43. Which of the following diseases or infections is caused due to poor water hygiene?  a) Leprosy b) Trachoma c) Conjunctivitis (d) All of the above
44. Which of the following statements is true about the composition of Calcium Carbonate (CaCo <sub>3</sub> )
in soft water? (a) to 30 milligrams of CaCO <sub>3</sub> per litre (b) 30 to 60 milligrams of CaCO <sub>3</sub> per litre (c) 60 to 90 milligrams of CaCO <sub>3</sub> per litre (d) 90 to 120 milligrams of CaCO <sub>3</sub> per litre
45. Which of the following salts are the main causes of temporary hardness?  a) Calcium sulphate b) Magnesium sulphate c) Magnesium chloride d) Magnesium carbonate
46. According to the Geological survey, water with less than 1000 ml/litre of total dissolved solids is a) Brine water (b) Freshwater (c) Slightly saline (d) Moderately saline
보고 보는 사용하다 그 사람들이 하는 사람이 사용하는 것 같아 보다 하는 것이 없었다.

a) Independent of dissolved solids passing through the filters in the process of filtral Independent of suspended solids  c) Difference between total solids and suspended solids  d) All of the above	ation is called uspended solids
48. Which of the following units is used for measuring the turbidity of water?  a) EAU Formazin Attenuation Units b) FNU- Formazin Nephelometric Unit c) NTU - Nephelometric Turbidity Units d) All of the above	24 2234 2 14152
(a) Measles b) Typhoid c) Cholera d) Hepatitis	
50 The maximum permitted loss of head in a rapid sand filter, is  (a) 1 m b) 2 m c) 3 m d) 4 m	
The nitrate concentration in domestic water supplies, is generally limited to.  (a) 10ppm b) 15ppm c) 30ppm d) 45ppm	
52. Carbonates in water produce. a) Temporary hardness b) Permanent hardness c) Acidity d) Alkanity	
53. Ground water from artiesian walls. a) Contains no suspended materials c) may be saltish and hard b) Contains dissolved salts d) All the above	2 - 2 de 1 de 7
54. Alum is a.  (a) coagulant b) Flocculent C) Catalyst d) Disinfectant	
a) Along straight length of pipes at suitable intervals c) At the branching off points of sub- mains  b) At the junction of pipes d) All the above	es.
56. The ratio of maximum hourly consumption and average hourly consumption day, is a) 1.2 b) 1.5 c) 1.8 d) 2.7	of the maximum
57. If the average daily demand of a city of 50,000 population, is 20 m.l.d., the mademand is	aximum daily
a) 24 mld b) 30 mld c) 36 mld d) 54 mld	
58. Aqueducts are generally designed  a) circular b) Rectangular c) Horse shoe section d) All of the above	
a) 5% b) 7.5% c) 10% d) 15%	an Africa (Carlos Arriva)
60. The requirement of water per capita per day, is (a) 90 litres (b) 120 litres (c) 150 litres (d) 400 litres	
	5 #

Theory Key Answers: 2020-21

Q.No	Ans	Q.No	<u>Ans</u>	Q.No	Ans
1	a	21	d	41	d
2	c	22	a	42	d
3	a	23	c	43	С
4	a	24	d	44	d
5	d	25	d	45	b
6	b	26	a	46	d
7	c	27	b	47	ь
8	c	28	b f	48	b
9	a	29	d	49	d
10	d	30	a	50	a
11	d	31	a	51	d
12	a	32	С	52	a
13	a	33	d	53	d
14	d	34	a	54	a
15	a	35	a	55	d
16	a	36	d	56	d
17	d	37	C	57	С
18	Ъ	38	C	58	d d
19	a	39	a	59	d
20	d	40	d	60	a

12 C. Coordinator Karnatak Arts, Science & Commerce College, Bidar





### **Department of Chemistry**

## Add on course On Soil & Water Testing

External Marks List 2020 - 2021

SI.No	Name of the student	Marks	
1	Nandini S	41	
2	Vaishnavi M	30	
3	Hema A Sagar	So	
4	Neelavati D	46	
5	Sushma A	47	
6	Apoorva R	50	
7	Swati Yanagunde	46	
8	Ashwini Basavaraj	46	
9	Pallavi Chickbase	45	
10	Aishwarya R	44	
11	Kavya S	43	
12	Monika S	40	
13	Tirveni B	42	
14	Kanchan sajjan	42	
15	Pooja Patil	HO	
16	Omer Farooq	40	
17	Renuka S	43	
18	Usha Manjunath	40	
19	Soumya S	49	
20	Aishwarya C	47	
21	G Moksha M	Н3	
22	Maliha Muskan	44	
23	Kartika Jadav	42	
24	Angelin Kote	42	
25	Pallavi Rajkumar	40	

Candidates present - 25

Candidates absent - 00

Total - 25



## Karnatak Arts, Science & Commerce College, Bidar (Affiliated to Gulbarga University)



College With Potential for Excellence

### **Department of Chemistry**

### Add on course On Soil & Water Testing

Marks List 2020 - 2021

SI.No	Name of the student	Internal Marks (40)	External Marks (60)	Total (100)
1	Nandini S	38	41	79
2	Vaishnavi M	36	30	66
3	Hema A Sagar	28	52	80
4	Neelavati D	30	46	76
5	Sushma A	28	47	75
6	Apoorva R	30	50	80
7	Swati Yanagunde	30	46	76
8	Ashwini Basavaraj	30	46	76
9	Pallavi Chickbase	34	45	79
10	Aishwarya R	34	44	78
11	Kavya S	32	43	75
12	Monika S	26	40	66
13	Tirveni B	30	42	72
14	Kanchan sajjan	32	42	74
15	Pooja Patil	22	40	62
16	Omer Farooq	26	40	66
17	Renuka S	26	43	69
18	Usha Manjunath	26	40	66
19	Soumya S	28	49	77
20	Aishwarya C	30	47	77
21	G Moksha M	34	43	77
22	Maliha Muskan	28	44	72
23	Kartika Jadav	36	42	78
24	Angelin Kote	32	42	74
25	Pallavi Rajkumar	30	40	70

Chemistry Department arnatak Arts, Sc. & Comm. College BIDAR - 585 401

Karnatak Arts, Science & Commerce College, BIDAR

#### K.R.E.Society's

## Karnatak Arts, Science & Commerce College, Bidar. **Department of Chemistry**

"Add on Course" on Soil and Water testing

2020 - 2021

#### Report

Name of the Course

: Soil and Water Testing

Name of the Department: Chemistry

Duration

: 30 hrs

Number of Students

: 25

Department of Chemistry conducted Add- on course on Soil and Water Testing. This course helps students to improve working ability in analytical laboratory. Students will have supervised, hands-on work experience related to crop production. Students will be able to identify soil types and will be able to identify ways to improve soil fertility as well as reduce soil erosion and improve water quality and availablity. At the end of term we have conducted examination and issued certificates.

Head of the

Chemistry Depr ment

Karnatak Arts, Sc. & Comm. College

BIDAR - 585 401

Karnatak Arts, Science &

Commerce College, BIDAK