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 To,
The Principal.

Karnatak Arts Science and Commerce College, Bidar

Outward No Date: 17/02/2020

Date: 17/02/2020

BIDAR

Course of the Property o

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

Respected Mam,

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.

O. S. To put up Kaysone

Sincerely

Stil ARIMamane
Department of Chemistry
Head Department of Chemistry

May be Forwarded to Hamble president!

Secretary LRESOCIEM BIDN for permiss m to

Start the Cornificate course on Soil and water

Analysis" from 20th Represent 2020, for Advance

Cearners with Intabe capacity 25 and permits to

to Collect the feel of 4200/- Each Sowlath to

meet the necessary superviture and permits

Deport the collected Fory in Aline of Accessing

Vice-prongonge) forwarded to the Honble Gresident Secretary Secking permission D Stood-a costificate course in "Soil and Water analysis" In chamistry by Callecting B. 200/- per Student. The Vcallected amont will be deposited into Dec Bank account No. James 18/2/2028 5 (fointed account). Car saa As fer directors and NOAC fullehous Deflutant of Sorchemistary desirons to start of Certificat course in Sorial and water analysis " and by Collectory 6200/- fee students Kinly knowisson be accorded to start the come by collecte bis 200/ for sheld 12 permit-A: R. Mymme to attend · pagana ending the first of the control of t Timerray on to diamental and the state of the A BORN OF DIVERSE STATE OF THE and the state of t



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AGrade CGPA 3.24

Estd 1970
(Affiliated to Gulbarga University, Kalaburagi)
College with Potential for Excellence Status Awarded by UGC New Delhi

ISO 9001 : 2015



Golden Jubilee Celebration 1970-202

Date: 22-07-2019

To.

Dz.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,

I 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 College

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S. 348-303401

E-mail: principalkascc@gmail.com Fax: 08482-226503

Hyderabad Road, Karnataka State - 585401.

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Commerce College, Blogi

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

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Commerce College, BIDAR

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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 Chairman
1.	- Sri. Ashok Mamane	Head, Department of Chemistry, Karnatak Arts	Chairman
	A STATE OF	Science and Commerce	4 T
		College, Bidar.	Member
2.	Sri. Vinod Kumar Mulge	Associate Professor, Department of Chemistry	Internal Expert
3.	Dr.S. B Mashetty	Associate Professor, Department of Chemistry	Member Internal Expert
4.	Dr. P. Vithal Reddy	Associate Professor HOD of Chemistry, B.V.B College.	External Expert
		Bidar	

In the beginning of the meeting the Chairman of the Institutional BOS welcomed all the members and briefed them 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





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KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR



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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

1. Sri. Ashok Mamane

of Chemistry Arris Sc. & Comm. College BIDAR-585401

2. Sri. Vinod Kumar Mulge

3. Dr. S. B Mashetty

4. Dr. P. Vithal Reddy

Dept of CHEMIST B V B Degree College BIDAR-585403 (ILB.)

L'ummerce College.

E-mail: principalkascc@gmail.com Fax: 08482-226503

Hyderabad Road, Karnataka State - 585401.

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. Soil 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

40 Internal Marks: Theory: 20 Practical: 20

External Marks: 60 Total Marks: 100

Eligibility: Students enrolled in B Sc program of this college

No. of Seats: 25

BV.B Degree College

BIDAR-585408 (K.S.)

Department of Chemistry

Kamalak Arts Sc. & Coffrer College BIDAR-585401 m

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

Dept of CHEMIS BV.B Dogree College BIDAR-585403 (K.B.)





College With Potential for Excellence

Department of Chemistry

Date: 03 - 01 - 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 08-01-2020 to 20 - 02 -2020, interested students can enrol their names on are before 07-01-2020, in the Department of Chemistry.

ead of the Chemistry Depa ument Earnatak Arts, Sc. & Comm. College B 1 D A R - 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

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

SI.No	Name of the student	Semester
1.	Sujata.S	B.Sc V Sem
2.	Rakshita A	B.Sc V Sem
3.	Shweta R	B.Sc V Sem
4.	Shruti B	B.Sc V Sem
5.	Patil Bhavani	B.Sc V Sem
6.	Soubhagya S	B.Sc V Sem
7.	Bhagyashree	B.Sc V Sem
8.	Rohini M Sonar	B.Sc V Sem
9.	Pooja V	B.Sc V Sem
10.	Rohini R Sutar	B.Sc V Sem
11.	Madhurani S	B.Sc V Sem
12.	Vaishnavi S	B.Sc V Sem
13.	Shalini Sanjay	B.Sc V Sem
14.	Vaishali Patil	B.Sc V Sem
15.	Moona Arfath	B.Sc V Sem
16.	Shivkumar A	B.Sc V Sem
17.	Mana Vijaykumar	B.Sc V Sem
18.	Sarvesh M	B.Sc V Sem
19.	Ambika Baliram	B.Sc V Sem
20.	Manikeshwari B	B.Sc V Sem
21.	Deepika J	B.Sc V Sem
22.	Shivkumar R	B.Sc V Sem
23.	Amargonda C	B.Sc V Sem
24.	Nandakumar M	B.Sc V Sem
25.	Monika C	B.Sc V Sem

Chemistry Department

Sarnatak Arts, Sc. & Comm. College

BIDAR-585 401

Principal

Vice-Principal & IQAO. Coordinator Rarnatak Arts, Science & Commerce College, 11.



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
IAS/IPS/NET/SET Coaching Classes
Name of the Department Chemistry Year III
Name of the Student Kohini Raykumer Sutar Father's/Guardian's Name Raykumer
Date of Birth Date Month Year 1 9 9 8 Date Arts Science College.
Address for Correspondence:
_ Kamalnaday
Tg-Kamalnadou Dist-Bidar
Semester/Class: BSc V sun
Register No :
Percentage of previous semester : <u>G4 %</u>
Contact No : 8050011034 / 9148501722
E-Mail ID : rsutar 37@ donail com

Signature of the Student

Course to be Joined:

HOD/Goordingtorne
Chemisty Dep ment
Earnatak Avis, Sc. & comm. College
B I D A R = 585 401

Principal Arts Science A Restricted College. RIDAR



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



College With Potential for Excellence

Department of Chemistry

Date: 07 - 01 - 2020

NOTICE

All the students of B.Sc V Sem are hereby informed that, the classes of Add - on course on "Soil and water testing" will commence from 08 - 01 - 2020 and are directed to attend the classes as per the time table.

Hapead of the Chemistry Dep ment Karnatak Arts, Sc. & Comm. College BIDAR - 585 401

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 2019 - 2020

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

HOD the
Head of the
Chemistry Department
Carnata Arts, Sc. & Comm. College
BIDAR-585 401

Theory

SI No.	Name of the student	81	9	15/1	16	22	23	2	9 3	30	5/2	6/2			
	Sujata S	P	2 A	P	P	P	A		P	P	P	P			
2	Rakshitha A	P	Þ	P	A	P	P	1	P	?	P	P			
3	Shweta R	P	P	P	p	P	1		P	P	P	P			
4	Shruthi B	P	A	P	F	P	F	>	P	A	P	P			
5	Patil Bhavani	P	A	P	F	P	P	X	P	P	P	A			
6	Soubhagya S	P	P	P	A	P	F	7	P	ρ	P	P			
7	Bhagyashree	P	p	P	A	P	P)	P	A	P	P			
8	Rohini M Sutar	P	P	P	7	P) (2	P	ρ	P	P			
9	Pooja V	P	P	P	+	F) ()	P	P	P	6	7		
10	Rohini R Sutar	P	_ A	F	> 4	P	1	7	P	P	P	P	2		
11	Madhurani S	P	, ‡	, F	> 4	Pf	>	P	P	P	F) (.)		
12	Vaishnavi S	P	, ‡	, 1	> 4	P 1	0	0	P	P	1	2	0		
13	Shalini Sanjay	F	> \$, p	> /	4	P	ρ	P	A	f) (2		
14	Vaishali Patil	,	D \$,	p	P	P	P	P	√.	0 1	> (0	13-	

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15	Moona Arfath	P	P	P	P	P	A	P	P	P	P	,	
16	Shivkumar A	P	P	A	A	P	P	P	P	P	P		
17	Mana Vijaykumar	P	p	P	Þ	P	A .	P	A	A	ρ		
18	Sarvesh M	A	P	P	Þ	P	A	P	P	P	P		
19	Ambika Baliram	P	P	P	P	P	P	P	P	P	P		2
20	Manikeshwari B	P	A	P	P	Ð	A	P	P	P	A		
21	Deepika J	P	A	P	þ	P	P	P	P	P	A	T.A.	
22	Shivkumar R	A	P	P	P	P	P	P	P	P	ρ		
23	Amargonda C	P	P	P	P	A	A	P	P	P	P		
24	Nandkumar M	P	P	P	A	P	Þ	A	1	P	A		
25	Monika C	P	P	P	B	P	P	P	P	P	P		
Sign of faculty	y	3	W	3	y/	237	Al .	多	Al	多	Carry		

Principal

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

Practical.

SI No.	Name of the student	3	23	29	30	5/2	2	艺	2	23	21	-			
1	Šujata S	P	P	P	ρ	P	P	A	9	P	1	7			
2	Rakshitha A	P	P	P	0	P	P	A	P	P	1)			
3	Shweta R	P	P	0	P	P	P	P	D	P	1	0		,	
4	Shruthi B	P	P	P	P	P	P	P	n	P	F	2			
5	Patil Bhavani	P	P	A	A	A	P	P	P	P	1	0			
6	Soubhagya S	P	A	A	A	A	P	P	P	P		P	4		
7	Bhagyashree	P	P	P	P	P	P	P	A	P		P			
8	Rohini M Sutar	P	P	P	P	P	A	P	P	f		A			
9	Pooja V	P	P	A	A	P	P	P	P	F)	A	ř		_
10	Rohini R Sutar	P	1	(-	P	P	A	P	P	F)	P			
11	Madhurani S	P	P	P	P	P	F) ^	P	f	2	4	No.		
12	Vaishnavi S	P	F	P	P	P	P	1	1 1	, 1	0	P			
13	Shalini Sanjay	P	-	5 g	-	1 5	> 5	> /	Pt)	P	P			
14	Vaishali Patil	I.)	> 6	9 6	P	P	, ,	P	P.	P	P			

15	Moona Arfath	P	f	PP	0	F	P	A	F) 1	PP		
16	Shivkumar A	P	P	6) (P	P	P	F	> 1	7 6)	
17	Mana Vijaykumar	P	P	P	P	P	P		> 1) f	P		
18	Sarvesh M	P	P	A	A	P	P	Þ	F	F	P		
19	Ambika Baliram	P	P	P	ρ	P	P	P	A	P	A		
20	Manikeshwari B	P	P	P	ρ	P	P	Ð	p	A	- A		
21	Deepika J	P	P	P	P	P	P	A	P	F	P		Š
22	Shivkumar R	A	P	P	P	P	P	7	A	P	P		
23	Amargonda C	P	P	A	A	P	P	P	p	A	A		
24	Nandkumar M	P	P	P	P	P	P	P	A	P	ρ		
25	Monika C	P	P	P	P	P	P	Þ	A	P	P		
Sign of faculty		7	A3	W	ý s	2	2	al	ADS	3	3		

Head of the
Che native Department
Ramata Aris, Sc. & Comm. College
B (D) A R - 585 401

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





Department of Chemistry

Date: 25 - 02 -2020

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 02 - 03 - 2022 from 10am - 11am.

Principa Karnatak Arts, Science & Commerce College, BIDAR





Department of Chemistry

Add on course On Soil & Water Testing

Internal Examination Attendance 2019 - 2020

SI.No	Name of the student	Signature
1	Sujata S	Sulata
2	Rakshita A	Rakshee
3	Shweta R	RS
4	Shruti B	chaut
5	Patil Bhavani	John
6	Soubhagya S	Sourryge
7	Bhagyashree	Schageas
8	Rohini M Sonar	MSgrad
9	Pooja V	P0010.
10	Rohini R Sutar	Althas
11	Madhurani S	Madhu
12	Vaishnavi S	Teishour
13	Shalini Sanjay	SSanjal
14	Vaishali Patil	Voishald
15	Moona Arfath	Mel -
16	Shivkumar A	Shirkymen
17	Mana Vijaykumar	Mona
18	Sarvesh M	Sand
19	Ambika Baliram	Ambiba
20	Manikeshwari B	Manchellus
21	Deepika J	Derbita
22	Shivkumar R	
23	Amargonda C	Amalgore
24	Nandkumar M	Mondicamer
25	Monika C	Monebox

Candidates present - 25 Candidates absent - 00

Total - 25

K.R.E. SOCIETY'S KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR Add-on Course Internal 2019-20 Paper; - Soil and Water Analysis

Time-1Hour

Maximum marks - 20 X2 = 40

1. The nitrate concentration in domestic water supplies ,is generally limited to. a) 10ppm b) 15ppm c) 30ppm d) 45ppm
2. Carbonates in water produce. a) Temporary hardness b) Permanent hardness c) Acidity d) Alkanity
3. Ground water from artiesian walls. a) Contains no suspended materials c) may be saltish and hard b) Contains dissolved salts d) All the above 4. Alum is a. a) coagulant b) Flocculent C) Catalyst d) Disinfectant
5. 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
6. 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
7. 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
8. Aqueducts are generally designed a) circular b) Rectangular c) Horse shoe section d) All of the above
9. Water losses in water supply, is assumed as a) 5% b) 7.5% c) 10% d) 15%
10. The requirement of water per capita per day, is a) 90 litres b) 120 litres c) 150 litres d) 400 litres

11. The maximum permitted loss of head in a rapid sand filter, is a) 1m b) 2m c) 3m d) 4m
12. Earth's body of soil is the known as? a) Pedosphere b) Lithosphere c) Biosphere d) Hydrosphere
13. Soil science has how many branches of study? a) 4 b) 1 c) 2 d) 3
14. Which soils are formed from chemical decomposition of rocks? a) Laterite Soils b) Marine deposits c) Black soil d) Alluvial
15. Which soils are pink or red in colour?a) Laterite Soils b) Marine deposits c) Black soil d) Alluvial
16. Which soils are formed by the sediments brought down by the rivers? a) Laterite Soils b) Marine deposits c) Black soil d) Alluvial
17. Which soil is formed from arid conditions with practically negligible rainfall? a) Marine deposits b) Desert soils c) Black soil d) Alluvial
18. Which soils are also called as regur soils? a) Marine deposits b) Desert soils c) Black soil d) Alluvial
19. Which soil is suitable for the growth of cotton? a) Marine deposits b) Desert soils c) Black soil d) Alluvial
20. Name the soil with low shearing strength and high compressibility? a) Marine deposits b) Desert soils c) Black soil d) Alluvial
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(6x2 20) (32) 40)

Name - Rohini. R.

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

Time-1Hour

Maximum marks - 20 X2=40

1.	•
1. The nitrate concentration in domestic water supplies, is a) 10ppm b) 15ppm c) 30ppm d) 45ppm	generally limited to.
2. Carbonates in water produce. a) Temporary hardness b) Permanent hardness c) Ac	cidity d'Alkanity
3. Ground water from artiesian walls. 4) Contains no suspended materials c) may be saltish and hard b) Contains dis d) All the above	
A. Alum is a. a) coagulant b) Flocculent C) Catalyst d) Disinfectar	nt _
5. 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)	At the junction of pipes. All the above
6. 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	2
 If the average daily demand of a city of 50,000 population demand is 	on, is 20 m.l.d., the maximum daily
a) 24 mld b) 30 mld c) 36 mld d) 54	4 mld
8. Aqueducts are generally designed a) circular b) Rectangular c) Horse shoe section d) All of the above
9. Water losses in water supply, is assumed as a) 5% b) 7.5% c) 10% d) 15%	
10. The requirement of water per capita per day, is a) 90 litres b) 120 litres c) 150 litres d) 400 litres	res

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20. Name the soil with low shearing strength and high compressibility? a) Marine deposits b) Desert soils c) Black soil d) Alluvial	

in the

K.R.E. Society

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

Add on course On Soil & Water Testing

Key Answer 2019 – 20

Q. No.	Ans.	Q. No.	Ans.
. 1	d	11	с
2	a	12	d
3	С	13	a
4	d	14	a
5	b	15	d
6	a	16	c
7	b ,	17	c
8	ь	18	a
9	d	19	d
10	a	20	d





Department of Chemistry

Add on course On Soil & Water Testing

Internal Marks List 2019 - 2020

SI.No	Name of the student	Marks
1	Sujata S	38
2	Rakshita A	36
3	Shweta R	34
4	Shruti B	32
5	Patil Bhavani	36
6	Soubhagya S	30
7	Bhagyashree	32
8	Rohini M Sonar	
9	Pooja V	30
10	Rohini R Sutar	32.
11	Madhurani S	28
12	Vaishnavi S	28
13	Shalini Sanjay	26
14	Vaishali Patil	30
15	Moona Arfath	30 88
16	Shivkumar A	98
17	Mana Vijaykumar	32
18	Sarvesh M	3,9
19	Ambika Baliram	32
20	Manikeshwari B	28
21	Deepika J	26
22	Shivkumar R	36
23	Amargonda C	22
24	Nandkumar M	86
25	Monika C	18

Candidates present - 25

Candidates absent - 00

Total - 25





Department of Chemistry

Date: 03 -03-2020

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 07-03-2020 from 10am - 11am.

Chemistry Department BIDAR - 585 401

Karnatak Arts, S Commerce College, BIDAR





Department of Chemistry

Add on course On Soil & Water Testing

External Examination Attendance 2019 - 2020

SI.No	Name of the student	Signature
1	Sujata S	elifata
2	Rakshita A	Katshita.
3	Shweta R	AS .
4	Shruti B	and the
5	Patil Bhavani	Partil
6	Soubhagya S	Souprogga.
7	Bhagyashree	Shog
8	Rohini M Sonar	Manal
9	Pooja V	Pooja.
10	Rohini R Sutar	Shears
11	Madhurani S	Cottlet.
12	Vaishnavi S	Vaishoatti
13	Shalini Sanjay	SSan ay
14	Vaishali Patil	Vaishali
15	Moona Arfath	
16	Shivkumar A	M
17	Mana Vijaykumar	Mana
18	Sarvesh M	Santer
19	Ambika Baliram	Ambig
20	Manikeshwari B	Man Eshwale
21	Deepika J	Deepita
22	Shivkumar R	
23	Amargonda C	Analyproa
24	Nandkumar M	Nanokamor
25	Monika C	Monitos-

Candidates present - 25

Candidates absent - 00

Total - 25

K. R.E. SOCIETY'S KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR Add-on Course Examination 2019-20 Paper; - Soil and Water Analysis

Time- 1Hour			Maximum marks - 60
1. Which type o West Bengal, in a) Marshy soi	Dinar and Almora dist	the coastal areas of Oristict of Uttaranchal? b) Black soil d) Allud	ssa and Tamil Nadu, Sunderbans of
2. Which of the a) Plants	following are the prima b) Animals	ary causes of water poll c) Human activities	ution? d) None of these
3 Which of the water?	following techniques is	used for reducing the to	tal dissolved solids (TDS) in the
a) Osmosis	b) Ion exchange	c) Distillation	d) Both b and c
4. Which of the (a) It is a clean	following statements ar fuel b) It is a harmful	e true about CNG -Con fuel c) It is a polluting	apressed natural gas? g fuel d) All of the above
5. Which of the fa) Magnesium s	following salts is the maulphate b) Magnesium	in cause of permanent h bicarbonate c) Magne	ardness of water? siun carbonate d) None of the above
	following is mainly response	onsible for the causes of	water pollution?
7.Chlorofluoroc a) Perfumes	arbon are nonflammab b) Refrigerators	le chemicals mainly used c) Air conditioners	d in . d) All of the above
8. Which of the f the given water a) Settling	ollowing techniques is us sample? b) Flushing	used to determine the co	ncentration of odour compounds in d) Chlorinat
9.What is the he a) Fluorosis	alth effects of excess flu b) Toothaches c) I	oride in drinking water Lung disease d) In	
10.Which of the a) Osmosis	following techniques is b) Ion exchange c) Lin	used to remove fluoride ne softening — d) Both b	es from the water bodies?
11. Which of the a) Typhoid b)	following is a waterbor Cholera c) Diarrhoea	ne disease? a d) All of the above	
12.The main sou a) Floods b	rces of Arsenic in water) Fertilizers c) Ind		oth b and c
13.In most fresh following inorga	water lakes, the algal pr	roductivity is limited by	the availability of which of the
9	The rolling of		f the above

a) Leprosy	of the following disca b) Trachoma c)	ses or infection Conjunctivitis	s is caused due t d) All of the	o poor water hygien above	e?
	of the following states er?		out the composi	tion of Calcium Car	bonate (CaCo ₃)
a) 0 to 30 n c) 60 to 90	nilligrams of CaCO ₃ milligrams of CaCO ₃	per litre 3 per litre	b) 30 to 60 mill d) 90 to 120 mi	ligrams of CaCO3 pe lligrams of CaCO3 p	r litre er litre
16.Which o a) Calcium	of the following salts a sulphate b) Magn	are the main ca esium sulphate	uses of tempora c) Magnesium	ry hardness? chloride d) Magne	sium carbonate
17.Accordi a) Brine wa	ng to the Geological	survey, water w	ith less than 100		
c) Difference	ount of dissolved solic lent of suspended sol ce between total solid	s and suspende	d solids d	of total solids and sus l) All of the above	tion is called pended solids
	of the following units mazin Attenuation U ephelometric Turbid	mits b) Fr	suring the turbi NU- Formazin N I) All of the abov	ephelometric Unit	
20. Which o a) Measles	f the following is not b) Typhoid c)	a waterborne (Cholera (lisease? l) Hepatitis		
21. The nitra a) 10ppm	ate concentration in b) 15ppm c) 30	domestic water oppm d) 45pp	r supplies ,is gen m	erally limited to.	
22. Carbona a) Tempora	tes in water produce ry hardness b) Per	manent hardn	ess c) Acidity	d) Alkanity	
a) Contains r	vater from artiesian 10 suspended materi: ltish and hard	als b) C	ontains dissolve Il the above	,	
24. Alum is a a) coagulant		C) Catalyst d)	Disinfectant		
c) At the bra	ves are fitted in a dis ight length of pipes a nching off points of s	it suitable inter sub- mains	vals b) At th d) All th	e above	
26. The ratio	of maximum hourly	consumption a	nd average hou	rly consumption of t	he maximum
a) 1.2 b) 1.5	c) 1.8 d) 2.7			Sawa Baran	
27. If the averdemand is	rage daily demand o	f a city of 50,00	0 population, is	20 m.l.d., the maxir	num daily
a) 24 mld	b) 30 mld	c) 36 mld	d) 54 mld		diV.

Aqueducts are generally designed	
circular b) Rectangular c) Horse shoe section d) All of the above	
Water losses in water supply, is assumed as 5% b) 7.5% c) 10% d) 15%	
The requirement of water per capita per day, is 90 litres b) 120 litres c) 150 litres d) 400 litres	
The maximum permitted loss of head in a rapid sand filter, is 1m b) 2m c) 3m d) 4m Earth's body of soil is the known as? Pedosphere b) Lithosphere c) Biosphere d) Hydrosphere	
Soil science has how many branches of study? 4 b) 1 c) 2 d) 3	
. Which soils are formed from chemical decomposition of rocks? Laterite Soils b) Marine deposits c) Black soil d) Alluvial	
. Which soils are pink or red in colour? Laterite Soils b) Marine deposits c) Black soil d) Alluvial	
. Which soils are formed by the sediments brought down by the rivers? Laterite Soils b) Marine deposits c) Black soil d) Alluvial	
. Which soil is formed from arid conditions with practically negligible rainfall? Marine deposits b) Desert soils c) Black soil d) Alluvial	
Marine deposits b) Desert soils c) Black soil d) Alluvial	
. Which soil is suitable for the growth of cotton? Marine deposits b) Desert soils c) Black soil d) Alluvial	
Name the soil with low shearing strength and high compressibility? Marine deposits b) Desert soils c) Black soil d) Alluvial	
. Which of the following is engineering properties of black soils? High compressibility b) Low bearing capacity c) Low shearing strength cove.	d) All the
Basic b) Parent c) Raw d) Ma Sedimentary deposits settled in lakes are called Lacustrine b) Aeolian c) Calcite d) Feldspar	in
. Which of the following is an example of sediment? Clay, gravel, sand, pieces of shell b) Only Clay c) Only pieces of shell d) Only	sand
	The requirement of water per capita per day, is 100 litres b) 120 litres c) 150 litres d) 400 litres The maximum permitted loss of head in a rapid sand filter, is 1 lm b) 2 m c) 3 m d) 4 m Earth's body of soil is the known as? Pedosphere b) Lithosphere c) Biosphere d) Hydrosphere Soil science has how many branches of study? 4 b) 1 c) 2 d) 3 Which soils are formed from chemical decomposition of rocks? Laterite Soils b) Marine deposits c) Black soil d) Alluvial Which soils are pink or red in colour? Laterite Soils b) Marine deposits c) Black soil d) Alluvial Which soils are formed by the sediments brought down by the rivers? Laterite Soils b) Marine deposits c) Black soil d) Alluvial Which soil is formed from arid conditions with practically negligible rainfall? Marine deposits b) Desert soils c) Black soil d) Alluvial Which soils are also called as regur soils? Marine deposits b) Desert soils c) Black soil d) Alluvial Which soil is suitable for the growth of cotton? Marine deposits b) Desert soils c) Black soil d) Alluvial Name the soil with low shearing strength and high compressibility? Marine deposits b) Desert soils c) Black soil d) Alluvial Name the soil with low shearing strength and high compressibility? Marine deposits b) Desert soils c) Black soil d) Alluvial Name the soil with low shearing strength and high compressibility? Marine deposits b) Desert soils c) Black soil d) Alluvial Name the soil with low shearing strength and high compressibility? Marine deposits b) Desert soils c) Black soil d) Alluvial Name the soil with low shearing strength and high compressibility? Marine deposits b) Desert soils c) Black soil d) Alluvial Name the soil with low shearing strength and high compressibility? Marine deposits b) Desert soils c) Black soil d) Alluvial

45. Planting different crops each year (corn one year, beans the next) is called what? a) Terracing b) No Till-farming c) Wind Breakers d) Crop Rotation
46. 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
47. What is the name of the layer of soil just under the grass? a) topsoil b) subsoil c) bedrock d) parent rock
48. After digging deeper and deeper, you would eventually hit solid (unweathered) rock, called a) Humus b) organic material c) subsoil d) bedrock
49. Which soils are usually free of lime and so are very sour? a) Laterite Soils b) Peat soil c) Black soil d) Alluvial
50. Formation of soil is known as? a) Pedogenesis b) Anthropogenic c) Regoliths d) Mycorrhizal
51. The mixing of the soil by the activities of animals is known as? a) Anthropogenic b) Regoliths c) Mycorrhizal d) Pedoturbation
52. Alluvium soil is later divided into how many parts? a) 3 b) 4 c) 1 d) 2
53. 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
54. Black soils are derived from how many types of rocks? a) 5 b) 4 c) 2 d) 3
55. Laterite and Lateritic Soils are suitable for the growth of? a) Tea b) Coconut c) Rubber d) All the above
56. In how many groups Indian soil is divided? a) 7 b) 8 c) 6 d) 9
57. Indian soils can broadly be divided into how many types? a) 2 b) 3 c) 4 d) 5
58. Tamil Nadu has which type of soil? a) Laterite Soils b) Red soil c) Black soil d) Alluvial
59. 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
60. Which type of soil is found in Andhra Pradesh and Karnataka? a) Saline b) Alkaline Soils c) Black d) Both a & b



Name - Robini . R

K. R.E. SOCIETY'S KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR Add-on Course Examination — 2019. — 20 Paper; Soil and Water Analysis

Time- 1Hour	Maximum marks - 60
1. Which type of soil is in the region of the coastal areas of Oriss. West Bengal, in Bihar and Almora district of Uttaranchal? (a) Marshy soils b) Red soil c) Black soil d) Alluvi	
Which of the following are the primary causes of water polluta) Plants b) Animals Human activities	d) None of these
3 Which of the following techniques is used for reducing the total	al dissolved solids (TDS) in the
water? a) Osmosis b) Ion exchange c) Distillation	(d) Both b and c
4. Which of the following statements are true about CNG -Companies and the control of the following statements are true about CNG -Companies and the control of the following statements are true about CNG -Companies are true are	pressed natural gas? fuel d) All of the above
5. Which of the following salts is the main cause of permanent has Magnesium sulphate b) Magnesium bicarbonate c) Magnesium	ardness of water? ium carbonate d) None of the above
6. Which of the following is mainly responsible for the causes of a) Afforestation b) Oil refineries c) Paper factories	water pollution? s d Both b and c
a) Perfumes b) Refrigerators c) Air conditioners	d) All of the above
Which of the following techniques is used to determine the countries given water sample?	ncentration of odour compounds in
(a) Settling b) Flushing c) Stripping	d) Chlorinat
a) Fluorosis b) Toothaches	testinai injection
10. Which of the following techniques is used to remove fluoride a) Osmosis b) Ion exchange c) Lime softening d) Both b	s from the water bodies?
a) Typhoid b) Cholera c) Diarrhoea d) All of the above	
a) Floods b) Fertilizers c) Industrial waste	oth b and c
13. In most freshwater lakes, the algal productivity is limited by following inorganic ions?	Approximately and the second of the second o
a) Carbon (b) Nitrogen c) Phosphorus d) All of	f the above

W. The state of th
a) Leprosy (b) Trachoma c) Conjunctivitis d) All of the above
15. Which of the following statements is true about the composition of Calcium Carbonate (CaCo ₃)
in soft water? a) 0 to 30 milligrams of CaCO ₃ per litre c) 60 to 90 milligrams of CaCO ₃ per litre d) 90 to 120 milligrams of CaCO ₃ per litre
16. Which of the following salts are the main causes of temporary hardness? a) Calcium sulphate b) Magnesium sulphate c) Magnesium chloride d) Magnesium carbonate
7. 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 Moderately saline
a) Independent of suspended solids b) Gum of total solids and suspended solids c) Difference between total solids and suspended solids
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
The nitrate concentration in domestic water supplies, is generally limited to. a) 10ppm b) 15ppm c) 30ppm d) 45ppm
Carbonates in water produce. (a) Temporary hardness b) Permanent hardness c) Acidity d) Alkanity
Contains no suspended materials a) Contains no suspended materials b) Contains dissolved salts d) All the above
24. Alum is a. a) coagulant b) Flocculent C) Catalyst d) Disinfectant
25. Sluice valves are fitted in a distribution system. (a) Along straight length of pipes at suitable intervals (b) At the junction of pipes. (c) At the branching off points of sub- mains (d) All the above
26. The ratio of maximum hourly consumption and average hourly consumption of the maximum
day, is a) 1.2 b) 1.5 6) 1.8 d) 2.7
2. 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

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a) circular (b) Rectangular c) Horse shoe section d) All of the above	
29. Water losses in water supply, is assumed as a) 5% b) 7.5% c) 10% d) 15%	
30. The requirement of water per capita per day, is a) 90 litres b) 120 litres c) 150 litres d) 400 litres	
31. The maximum permitted loss of head in a rapid sand filter, is (a) 1m b) 2m c) 3m d) 4m 32. Earth's body of soil is the known as?	
(a) Pedosphere b) Lithosphere c) Biosphere d) Hydrosphere	
a) 4 b) 1 © 2 d) 3	•
34. Which soils are formed from chemical decomposition of rocks? (a) Laterite Soils b) Marine deposits c) Black soil d) Alluvial	
35. Which soils are pink or red in colour? (a) Laterite Soils b) Marine deposits c) Black soil d) Alluvial	
36. Which soils are formed by the sediments brought down by the rivers? a) Laterite Soils b) Marine deposits c) Black soil d) Alluvial	
a) Marine deposits b Desert soils c) Black soil d) Alluvial	
38. Which soils are also called as regur soils? a) Marine deposits b) Desert soils (1) Black soil d) Alluvial	
a) Marine deposits b) Desert soils (Black soil d) Alluvial	
Att. Name the soil with low shearing strength and high compressibility? (a) Marine deposits b) Desert soils c) Black soil d) Alluvial	
a) High compressibility b) Low bearing capacity c) Low shearing strength above.	(d)All the
42. Mineral material from which a soil forms is known as? a) Basic	Main
44. 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 Clay c)	uly sand

a) Terracing	ferent crops each year (c b) No Till-farming	orn one year, bean c) Wind E	is the next) is calle Breakers	ed what? (d) Crop Rota	tion
46. Making step	s on the side of a mounta	ain to slow down w	ater erosion is ca	lled what?	1
(a) Terracing	b) No Till-farming	c) Wind Brea	kers d) Cro	p Rotation	
47. What is the	name of the layer of soil j	just under the gra	ss?		
(a) topsoil	b) subsoil	c) bedrock	d) parent rock		(A)
48. After digging a) Humus b) o	g deeper and deeper, you organic materialc) sul	would eventually bsoil (f) bedroo	hit solid (unweat ck	hered) rock, calle	d
49. Which soils a	are usually free of lime ar	nd so are very sou	r?		
a) Laterite Soils		c) Black soil	d) Alluvial		
50. Formation of	soil is known as?				
(a) Pedogenesis	b) Anthropogenic	c) Regoliths	d) Mycor	rhizal	
51. The mixing of	f the soil by the activities				
a) Anthropogenic	b) Regoliths	c) Mycorrhizal	wn as? (d) Pedoturba	tion	Asp.
			(a) I cuotarba		
52. Alluvium soil	is later divided into how	many parts?			
(a) 3 b) 4	c) 1 (1) 2				
a Bhabar	walik foothills, there are b) Regoliths e derived from how man	c) Mycorrhizal		doturbation	
a) 5 b) 4	© 2 d) 3	y types of rocks?			
55. Laterite and L a) Tea b) Coco	ateritic Soils are suitabl nut c) Rubber d	e for the growth o	f?)	
56. In how many g a) 7 (b) 8 c) 6 d)	roups Indian soil is divi 9	ded?	ni i		
57. Indian soils car (a) 2 b) 3	n broadly be divided into	o how many types	?		
	a material and a second				
58. Tamil Nadu ha a) Laterite Soils	b) Red soil	c) Black soil	d) Alluvial		er i
		es, quartzitic and		parent rock?	0)
a) Laterite Soils 59. Which soil has a) Laterite Soils	b) Red soil acid granites and gneiss	es, quartzitic and c) Black soil	felspathic as its l) Alluvial	parent rock?	

K.R.E. Society

Karnatak Arts, Science & Commerce College, Bidar.

Department of Chemistry

Add on course On Soil & Water Testing

Key Answer 2019 – 20

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





Department of Chemistry

Add on course On Soil & Water Testing

External Marks List 2019 - 2020

SI.No	Name of the student	Marks	
- 1	Sujata S	40	
2	Rakshita A	47	
3	Shweta R	45	
4	Shruti B	57	
5	Patil Bhavani	43	
6	Soubhagya S	45	
7	Bhagyashree	39	
8	Rohini M Sonar		
9	Pooja V	45	
10	Rohini R Sutar	44	
11	Madhurani S	47	
12	Vaishnavi S	41	
13	Shalini Sanjay	37	
14	Vaishali Patil	36	
15	Moona Arfath	48	
16	Shivkumar A	So	
17	Mana Vijaykumar	46	
18	Sarvesh M	51	
19	Ambika Baliram	51	
20	Manikeshwari B	49	
21	Deepika J	44	
22	Shivkumar R	41	
23	Amargonda C	48	
24	Nandkumar M	53	
25	Monika C	39	

Candidates present - 25

Candidates absent - 00

Total - 25

Invigilator





Department of Chemistry

Add on course On Soil & Water Testing

Marks List 2019 - 2020

SI. No	Name of the student	Internal Marks (40)	External Marks (60)	Total (100)
1	Sujata S	38	40	78
2	Rakshita A	36	47	83
3	Shweta R	34	45	79
4	Shruti B	32	57	89
5	Patil Bhavani	36	43	79
6	Soubhagya S	30	45	75
7	Bhagyashree	28	39	67
8	Rohini M Sonar	32	55	87
9	Pooja V	30	45	75
10	Rohini R Sutar	32	44	76
11	Madhurani S	28	47	75
12	Vaishnavi S	28	41	69
13	Shalini Sanjay	26	37	63
14	Vaishali Patil	30	36	66
15	Moona Arfath	30	48	78
16	Shivkumar A	28	50	78
17	Mana Vijaykumar	32	46	78
18	Sarvesh M	32	51	83
19	Ambika Baliram	32	51	83
20	Manikeshwari B	28	49	77
21	Deepika J	26	44	70
22	Shivkumar R	36	41	77
23	Amargonda C	22	48	70
24	Nandkumar M	26	53	79
25	Monika C	18	39	57

HeHOD the Chomistry Department

Earnatak Arts, Sc. & Comm. College BIDAR - 585 401

Kamatak Arts, Science & Commerce Callege, BIDAR

K.R.E.Society's

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

"Add on Course" on Soil and Water testing

2019 -2020

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. This helps to gain knowledge and equip the students with tools and techniques . 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.

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

Karnatak Arts, Science &-Commerce College, BIDAR