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



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 uf Kaysons

Sincerely

- Stil ARiMamane ggrent of Chemistr

Secretary LRESOCIEM BODY for permission of Start the Cookficate Course on Soil and water Analysis" from 20th Rebruary 2020, for Advance Course of Soil and water bo Collect the feel of 4200/- Each student to meet the necessary Exponditure and pomulate Deport the collected fooy in Almost of Dickstern Course providing to day.

Vice-proneuppar forwarded to the Hon Re President/ Secretary Secking permission to Stool- a costificate course in Soil or I Water analysis" In chemistry by Calleting As 200/ per Gulent. The Vcollected moni will be deposited into Dec Bank accomi No. 5 (frimpel account). J 18/2/2 3 [Cal saa As Pen directors and NAAC friedeline Defortment of Soriel- and water analysis as asof by Collectory 6 200, per students Stroly hunison be accorded to start the one by collecte as 200/ for shelut 12 percontife . 13 _ml The Was A. R. Mymne to Lalma? All provided the second of the and the state of t



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KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR

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Date: 22-07-2019

To.

Dy.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 Karnatak 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 Chemistrical & Countal Collette

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miniere College, Biots

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

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

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

Carnatok 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	Chairman
		Chemistry, Karnatak Arts,	
	NII.	Science and Commerce	
	- 190 (P) 15 t	College, Bidar.	
2,	Sri. Vinod Kumar Mulge	Associate Professor,	Member
-	'	Department of Chemistry	Internal Expert
3.	Dr.S. B Mashetty	Associate Professor,	Member
	1 1 1 1 1 1 1	Department of Chemistry	Internal Expert
4.	Dr. P. Vithal Reddy	Associate Professor HOD of	External Expert
		Chemistry, B.V.B College,	
		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.

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Cell: 9343834635

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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

Department of Chemistry

Department of Chemistry

College

BIDAR-585401

2. Sri. Vinod Kumar Mulge

3. Dr. S. B Mashetty

4. Dr. P. Vithal Reddy

Dept of CHEMISTRY
B V.B Degree College
BIDAR-585403 (K.S.)

IQAC Co- ordinate

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

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(EGICES) (MITTE)

Save Environment Save Earth



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:

20 Hours

Practical Lab Work: 10 Hours

30 Hours

Internal Marks:

40

Theory: 20 Practical: 20

External Marks:

60

Total Marks:

100

Eligibility: Students enrolled in B Sc program of this college

No. of Seats: 25

Dept of CHEMIN

BV.B Degree College

BIDAR-586403 (K.B.)

Department of Chemistry

Kamalak Arts Sc. & Commi College

BIDAR-585401-177

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,

V.B Degree College BIDAR-586403 (R.B.)





Karnatak Arts, Science & Commerce College, Bidar (Affillated to Gulbarga University) College With Potential for Excellence



Department of Chemistry

Date: 03- 01 -2022

NOTICE

All the students are hereby informed that, the Department of Chemistry is starting the addon course on Soil and water Testing from the 14-01-2022, interested students can enrol their names on are before 10 - 01 - 2022 in the Department of Chemistry.

Chemistry Dep ment Karnatak Arts, Sc. & Comm. Collow BIDAR - 585 401

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A.		Karnatak Arts, S	cience and Co	mmerce College, Bidar	
/ 3		De	partment of C	Chemistry	
Name	of the Certifica	te Course:	Soil	and water lesting	}
Perio	: January 2022	-March 2022		Class: BSC I Sem	
S.No	UUCMNo	Name	Cell No	Emall ID	Signature of the Student
1	U04AE21S0002	REVANSIDDA	9980243899	rvansiddasajjan02@gmail.com	Gunos
	U04AE21S0005	GOPAL	9552017165	surnatgopal913@gmail.com	Chine
	U04AE21S0023	VEERSHETTY	9980155938	veershettymadival@gmial.com	Modey
	U04AE21S0031	RADHIKA	9900866011	radhikabirgond@gmail.com	Radfail
	U04AE21S0040	PRAVEEN SADASHIV	9902393666	abcdpms123@gmlal.com	The
	U04AE21S0076	AKASH	8105849385	malipatilakash7204@gmail.com	ant
	U04AE21S0084	SYED LUKMAN	9880438920	syedlukman591@gmail.com	LVKMa
	U04AE21S0095	RAJESHWARI	7760671977	sanguswamy044@gmail.com	Rojesho
9	U04AE21S0097	PAVAN	7892801324	pavanwadgave005@gmail.com	Frm
	U04AE21S0099	JYOTI	9900442740	rakeshtippa2005@gmail.com	Verter
11	U04AE21S0109	RANI	7406451962	ranishivraj610@gmail.com	Rapl
12	U04AE21S0121	NAMEERA QURRAT	9449336913	nameeraqurrat0717@gamil.com	Modella
13	U04AE21S0120	SHWETA	9902561877	abhishekambannanor@gmail.com	Shereter
14	U04AE21S0186	VISHAL	7204452160	poojahn052@gmail.com	Grow.
15	U04AE21S0199	VISHWAJEET	9844765057	yuvarajdevappa@gmail.com	Vishwaje
16	U04AE21S0198	Praveen Biradar		biradarbasavaraj767@gmail.com	Porole
17	U04AE21S0206	RAMKUMAR	8747829272	dhuleramkumar@gmail.com	Ronkum
18	U04AE21S0246	NEHA ANJUM	9742253478	anjumneha138@gmail.com	Nehamius
19	U04AE21S0290	M VIVEK		vivekmycray000143@gmail.com	VENO
20	U04AE21S0305	ANAND	9900864137	anandjotgond@gmail.com	Anant.
21	U04AE21S0314	UMESHA	9980678560	umeshnirnakar777@gmail.com	wield
22	U04AE21S0327	MD ISMAIL SHAH	8618697912	mdismailm@gmail.com	Bruit's
23	U04AE21S0329	SAIKIRANREDDY	8748829707	reddyskrhge@gmail.com	Cont
24	U04AE21S0336	SUDEEP	6362443704	sudeepbiradar17@gmail.com	Torada

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Head of the Chomistry Dep ment Karnatak Arts, Sc. & Comm. College B I D A R - 585 401

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ADMISSION FORM

Certificate/Value added/Skill Development/Diploma/Advance Diploma Courses
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IAS/IPS/NET/SET Coaching Classes Name of the DepartmentCHEMISTRYYear2021-22
Name of the Student
Father's/Guardian's Name
Date of Birth Date Month Year 080500
[]03-042021
address for Correspondence :
VIDYANAGAR, 11th CROSS
BIDAR
emester/Class (: BSC TSem
egister No . <u>UD4AE2130031</u>
ercentage of previous semester : 87.
ontact No : 9900866011
Mail ID : nadhikabingond @ gmail. com
Mail ID: nadhikabingond @ gmail. com ourse to be Joined: Soil and waker Jesting.
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Radbilea No-

Signature of the Student

HOD Cook dinator Chemistry Dep ment Karnatak Arts, Sc. & comm. College BIDAR - 585 401

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Karnatak Arts, Science & Commerce College, Bidar (Affiliated to Gulbarga University) College With Potential for Excellence



Department of Chemistry

Date: 11-01-2022

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 14-01-2022 and are directed to attend the classes as per the time table.

Chemistry Dep ment Carnatak Arts, Sc. & comm. College BIDAR - 585 401

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

Value added course on soil and Water testing

Time –Table 2021-2022

Date/time	11 to 12am	10:30 to 12:30 pm
Thursday		Practical
Friday	Theory	
Saturday	Theory	Si Bir day

Earnatak Arts, Sc. & Comm. College
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BIDAR-585401

"Add on Course "on soil and water testing

Theory Attendence- 2022

No	Name of the student	14/01/22	21/01/22	30/01/39		29/1/92	N 02/39	D.	18/2/22	De	P
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4	Radhika	Radluka	Radlesia	Rachiku	Radista	Radpli	-	Rodika	Lodova Jw	Par	Pry
5	Praveen Sadashiv	Pry	eng	Buy	000	0		00		AM	
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"Add on Course" on soil and water testing

Theory Attendence- 2022

No	Name of the student	26/03/2	H/3/33	5/3/83					-		
1	Revansidda	R	· Pa	- D					3.4		
2	Gopal	Eina		Gynar	The second secon	1 77					
3	Veershetty		Jeashely	Jeership.					-		The state of the s
4	Radhika		Radila								
5	Praveen Sadashiv	Bry	Phy	Park		-					
6	Akash	AR	And	And							
7	Syed Lukman	AL	Ah	Ab.							
8	Rajeshwari	Ray estua	Pajerhum	Pajestia							
9	Pavan	Partos	Parties	Paran							
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11	Rani	Rani	Rani	Rani							
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16	Praveen Biradar	Pro D	Parto	Prost		. ,					
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Head of the
Chemistry Deps tment
Rarnatak Arts, Sc. & Comm. College
B I D A R - 585 401

PRINCIPAL Varnataka Arts Sci. & Com. College BIDAR-585401

"Add on Course "on soil and water testing

Practical Attendence- 2022

No	Name of the student	21/0/23 3/03/33 14/2/33 3/13/33 3/03/23 10/3/23
1	Revansidda	PPPPP
2	Gopal	River River Giver Giver Giver Giver Giver
3	Veershetty	highly beershilly beershilly beershilly beershilly beershilly beershilly
4	Radhika	Endower antitue Radhta Radhta Radhta Radhta Radhta
5	Praveen Sadashiv	By Due Pur Pur Pur
6	Akash	AND AND BOT AND BOTH AND
7	Syed Lukman	al al Ma Ab Ab Ab
8	Rajeshwari	Rojeshan Roj
9	Pavan	Roomy Protes Portor Portor Lavor Lovos Tovos
10	Jyoti	Trade Trade Jan Just
11	Rani	Roni Rani Rani Rani Rani Rani
12	Nameera Qurrat	Data da da da da
13	Shweta	all all the Ab Ab Ab
14	Vishal	Conserved Charles Charles Charles Charles Charles
15	Vishwajeet	highweit is harder restricted in the state of the state o
16	Praveen Biradar	The Room Room Pero IN Promise Pro-
17	Ramkumar	construct bounks were bountering bounks bounks bounks out know the
18	Neha Anjum	Mehr Neha Neha Neha Neha niera Amjum Amjum Amjum Amjum Amjum
19	M Vivek	rively vively vively vively vively vively
20	Anand	Anand Anand Anand Anand Anand Anand
21	Umesh	more well week week with the
22	MD Ismail Shah	they true the fleet free fleet
23	SaikiranReddy	By But Bas (80) (80) 100 IR
24	Sudeep	Grady Garado Garado Garados Forado Forados

Head of the
Chence Depression College
BIDAR-585 401

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



College With Potential for Excellence

Department of Chemistry

Date: 01 - 02 -2022

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 05-02-2022 from 11am - 12pm.

for of Chemistry Dep ment Karnatak Arts, Sc. & Comm. College

BIDAR - 585 401

Principal PRINCIPAL

Karnataka Arts Sci. & Com. College BIDAR-585401

"Add on Course" on soil and water testing

Internal Exam Attendence- 2022

Sl.No	Name of the student	Semester	Signature(T)	Signature(A
1	Revansidda	B.Sc I Sem	RI	
2	Gopal	B.Sc I Sem	Euro	Girrar
3	Veershetty	B.Sc I Sem	Dogdel	100 mg
4	Radhika	B.Sc I Sem	Rathilia	Radiulza
5	Praveen Sadashiv	B.Sc I Sem	PW	020
6	Akash	B.Sc I Sem	But	AM
7	Syed Lukman	B.Sc I Sem	LAO	78.20
8	Rajeshwari	B.Sc I Sem	Rojeshow	Rajeshur
9	Payan	B.Sc I Sem	Para	Pater
10	Jyoti	B.Sc I Sem	Bure	Orose
11	Rani	B.Sc I Sem	Rani	Rani
12	Nameera Qurrat	B.Sc I Sem	Commo	James
13	Shweta	B.Sc I Sem	Ah	Ab-
14	Vishal	B.Sc I Sem	(1) Duois	Greeners
15	Vishwajeet	B.Sc I Sem	vishwdeel	viennie
16	Prayeen Biradar	B.Sc I Sem	Pios	Rose
17	Ramkuar	B.Sc I Sem	Ramkuman	Rankuma
18	Neha Anjum	B.Sc I Sem	miorr).	- 4111
19	M Vivek	B.Sc I Sem	Hebo wel	o rwell
20	Anand	B.Sc I Sem	Anan	Inand
21	Umesh	B.Sc I Sem	terresty	unesta
22	MD Ismail Shah	B.Sc I Sem	Track	-smail
23	SaikiranReddy	B.Sc I Sem	8ai	Sall
24	Sudeep	B.Sc I Sem	Exadal	Fradal

Head of the
Chomical Depr tment
Carnatak Arts, Sc. & Comm. College
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K. R.E. SOCIETY'S KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR Internal Test - 2022

B.Sc I SEMESTER SUB: SOIL AND WATER TESTING(ADD ON COURSE) Marks: 20

NAME:-

The water content of a soil sample cannot be determined by method. a) oven drying
2. In oven drying method, the soil sample is kept for about hours in the oven. a) 1 b) 2 c) 24 d) 48
3. An organic soil sample is kept in oven for its water content determination. The temperature preferred is a) 60° b) 80° c) 105° d) 110°
4 method is specially suited to a circumstance where water content is to be quickly determined for the purpose of proper field control. a) Oven drying b) Sand bath c) Alcohol d) Calcium carbide
5. In pycnometer method of water content determination, it is necessary to accurately know the specific gravity G of soil whose water content is to be determined.a) True b) False
6. An oven – dried soil of mass 400g is placed in a pycnometer where empty weight is 573g. The mass of pycnometer with soil is 973g. The total mass of pycnometer with water and soil inside is 1605g. The pycnometer filled with water alone has mass of 1480. The specific gravity of solids is 2.65. Its water content is a) 40.456
7. In calcium carbide method, the gas produced is a) methane b) carbon dioxide c) acetylene d) oxygen
8. The water content of soil deposit in the in-situ condition is determinate by method. a) radiation b) pycnometer c) calcium carbide d) oven – dry
9. Sieve analysis is meant for a) coarse-grained soils b) fine-grained soils c) coarse-grained gravel d) silt

iven by	18 m
10. In Indian Standard (IS: 460-11962) the sieve sizes are given by	
10. In Indian Standard (18: 400-11902) the st	
a) number of openings b) number of openings c) size of aperture in mm d) size of aperture in cm	
11. The portion retained on IS sieve is termed as gravel fraction.	
a) 4.75mm D) 211111	
c) 425micron d) 75micron	
12. The receiver at the bottom of the assembly in sieve shaking machine is	
12. The receiver at the bottom of the assembly in order	
a) 4.75mm sieve	
c) pan	
13. Sieving is performed by arranging the various sieves one over the other in the order of their	
13. Sieving is performed by diffially and a serious se	
mech openings. a) True b) False	
14 minutes of shaking is done for soil with small particles.	
a) 2 b) 10	
a) 2 c) 15 d) 60	
1 -ious is calculated on the basis of	
15. The percentage of soil retained on each sieve is calculated on the basis of	
a) total mass b) total weight	
a) volume of sample d) density of soil	
16. The soil portion passing through 4.75 mm sieve is washed for further sieve analysis.	
16. The soil portion passing through 4.75 mass	
a) True b) False	
is used for washing the soil portion passing through 4.75 mm sieve.	
1 distilled water D) 29 01 Southin Horizont	
c) 10% of brine solution d) kerosene	
18. Which of the following, cannot be used as a dispersing agent?	
a) Sodium oxalate b) Sodium potyphosphate	
a) Sodium silicate d) Sodium oxide	
19. The process of removal of organic matter and calcium compounds in the dispersion method	
19. The process of removal of organic matter and sales	
is	
a) Pretreatment b) Sedimentation c) Evaporation d) None of the mentioned	
20. Which of the following are used as a standard sedimentation method in a laboratory?	
a) Sedimentation analysis method c) Pipette method d) Sand replacement method	

K. R.E. SOCIETY'S KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR Internal Test - 2022

		Internal Test - 2022	COVIDED)	Marks : 20
	B.Sc I SEMESTER	SUB : SOIL AND WATER TESTI	NG(ADD ON COURSE)	Walks . 20
	NAME:- KADHIKA	A1. 12. 18. 19. 19. 19. 19. 19. 19. 19. 19. 19. 19		13
(Y)	a) oven drying b	oil sample cannot be determined alcohol pipette	by method.	(20)
(O).	at 1 b) 2 c) 24	he soil sample is kept for about d) 48		to de de la constante de la co
_	3. An organic soil sample is	s kept in oven for its water conto	ent determination. The to	emperature
0	preferred is			L
(Y)	a) 60° b) 80° c) 105° d) 110°		5-163-67	3- 1
\sim		lly suited to a circumstance who	ere water content is to be	quickly -
(1)	determined for the purpose a) Oven drving b) San	of proper field control. d bath	To Water content	
	c) Alcohol A) Cal	cium carbide		
(1)	5. In pycnometer method of specific gravity G of soil war) True b) False	f water content determination, it hose water content is to be determined.	rmined.	Ty know are
	mace of nychometer with so	nass 400g is placed in a pycnomoil is 973g. The total mass of pyed with water alone has mass of	cnometer with water and	i son inside is
0	7. In calcium carbide metho a) methane b) car gacetylene d) ox	od, the gas produced isbon dioxide	and the same	0
(3)	a) radiation b) p	deposit in the in-situ condition yenometer ven – dry	is determinate by	_ method.
	9. Sieve analysis is meant f a coarse-grained soils c) coarse-grained gravel	b) fine-grained soils d) silt		

10. In Indian Standard (IS: 460-11962) the sieve sizes are given by a) number of openings b) number of openings per inch c) size of aperture in mm d) size of aperture in cm
11. The portion retained on IS sieve is termed as gravel fraction. 11. The portion retained on IS sieve is termed as gravel fraction. 12. The portion retained on IS sieve is termed as gravel fraction. 13. The portion retained on IS sieve is termed as gravel fraction. 14. The portion retained on IS sieve is termed as gravel fraction. 15. The portion of the portion retained on IS sieve is termed as gravel fraction.
12. The receiver at the bottom of the assembly in sieve shaking machine is a) 4.75mm sieve b) 425micron c) pan d) 75micron
13. Sieving is performed by arranging the various sieves one over the other in the order of their mech openings. (13) True (13) False
14 minutes of shaking is done for soil with small particles. a) 2 b) 10 c) 15 d) 60
15. The percentage of soil retained on each sieve is calculated on the basis of 15. The percentage of soil retained on each sieve is calculated on the basis of 27. Total mass b) total weight c) volume of sample d) density of soil
16. The soil portion passing through 4.75 mm sieve is washed for further sieve analysis. True b) False
17 is used for washing the soil portion passing through 4.75 mm sieve. a) distilled water
18. Which of the following, cannot be used as a dispersing agent? a) Sodium oxalate b) Sodium polyphosphate c) Sodium silicate A) Sodium oxide
19. The process of removal of organic matter and calcium compounds in the dispersion method is b) Sedimentation c) Evaporation d) None of the mentioned
20. Which of the following are used as a standard sedimentation method in a laboratory? a) Sedimentation analysis method b) Hydrometer method d) Sand replacement method

K.R.E. Society

Karnatak Arts, Science & Commerce College, Bidar.

Department of Chemistry

Add on course On Soil & Water Testing

Internal Key Answer 2021 – 2022

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

"Add on Course" on soil and water testing

Marks List- 2022

Sl.No	Name of the student	Internal Marks		
1	Revansidda	20		
2	Gopal	18		
3	Veershetty	14		
4	Radhika	18		
5	Praveen Sadashiv	16		
6	Akash	20		
7	Syed Lukman	Ab		
8	Rajeshwari	18		
9	Pavan	17		
10	Jyoti	18		
11	Rani	18		
12	Nameera Qurrat	14		
13	Shweta	Ab		
14	Vishal	17		
15	Vishwajeet	19		
16	Praveen Biradar	14		
17	Ramkumar	18		
18	Neha Anjum	18		
19	M Vivek	15		
20	Anand	17		
21	Umesh	18		
22	MD Ismail Shah	il		
23	SaikiranReddy	12		
24	Sudeep	18		

Head of the
Chemistry Depretment
Earnatak Arts, Sc. & Comm. College
BIDAR - 585 401

Principal
PRINCIPAL
Karnataka Arts Sci. & Com. College
BIDAR-585401



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



College With Potential for Excellence

Department of Chemistry

Date: 02 -03-2022

NOTICE

All the students enrolled in Add-on course on "Soil and water Testing" are here by informed that, the course Practical examination is scheduled on 08-03-2022 from 11am - 1pm.

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

Principal PRINCIPAL Karnataka Arts Sci. & Com. College BIDAR-585401

K. R.E. SOCIETY'S KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR Prostical Frame - 2022

B.Sc I SEMESTER SUB: SOIL AND WATER TESTING(ADD ON COURSE) Marks: 20

NAME: Ramkumar 5/0 Ashok

Determination of total hardness of water

AIM: "To determine the total hardness of water in presence of calculation & magnesium in the tap water

Apparatus: Burette, Conical flask, Beaker, measuring flask, Pipette

Chemical: > 0.01N EDTA Solution, 6.01N ZnSay solution, Buffer solution & Erechnome Black-T etc

Prepenation of standard solution =

DOIN EDTA Solution:

372.24 g of EDTA → Dissolved in woom of distilled water -> 1N

3.7224 g of EDTA - Dissolved in 1000ml of distilled water - 0.01N

1.8612 g of EDTA -> Dissolved in soom of distilled water -> 0.01N

2) O.O.N Zasou solution.

287.89 of ZnSou > Dissolved in 1000ml of distilled water > 1N 2.8789 of ZnSou > Dissolved in 1000ml of distilled water > 0.01N 0.28789 of ZnSou > Dissolved in 1000ml of distilled water > 0.01N 3) Preperation of evictorome Black-T(EB-T)

0.29 of EB-T undicates is dissolved in some of tricthonol amine & 5ml of the ethyl alcohol.

H) Breperation of Buffer solution

Dissolve Torn of pure ammonium thorside in Soml of ammonia solution distilled water.

Standerdisation of EDTA solution

DSolution in Burrette : 0.01N EDTA solution

DSolution of congral flask: 10 ml ZnSait 2 to 3 dowps of EB-T

3 Indicator used = Esichnome Black-T

H) End point : wine ned tobbue.

Bursette Reading (BR) = $\frac{12}{N_1 V_1} = \frac{N_2 V_2}{V_1}$

N= 0.0094N

1ml of 0.01N EDTA solution -> 0.49 of calcium 0.009 HN of DEDTA solution -> (x'92. of Calcium.

Amount ob calcium present in given 0.00g/N EDTA solution y= XXMBR. ... MBR = 10.7ml of 0.01N EDTA solution contain y'gms of calcium

Result: The cumount of calcion & magnesium in the solution The amount of 'co' present in some of tap water = 3.716 ×10 glorn!

The amount of 'co' present in soon of tap water = 3-7.16 × 10 glown!

"Add on Course "on soil and water testing

Marks List- 2022

Sl.No	Name of the student	Practical Marks		
1	Revansidda	19		
2	Gopal	19		
3	Veershetty	17		
4	Radhika	18		
5	Praveen Sadashiv	15		
6	Akash	19		
7	Syed Lukman	Ab		
8	Rajeshwari	19		
9	Pavan	16		
10	Jyoti	18		
11	Rani	17		
12	Nameera Qurrat	15		
13	Shweta	Ab		
14	Vishal	18		
15	Vishwajeet	16		
16	Praveen Biradar	17		
17	Ramkumar	19		
18	Neha Anjum	19		
19	M Vivek	12		
20	Anand	17		
21	Umesh	19		
22	MD Ismail Shah	70		
23	SaikiranReddy	13		
24	Sudeep	18		

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

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



College With Potential for Excellence

Department of Chemistry

Date: 09 -03-2022

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 12/03/2022 from 10am - 11am.

Chemistry Dep ment Carnatak Arts, Sc. & Comm. Colleg. BIDAR - 585 401

Principal PRINCIPAL Karnataka Arts Sci. & Com. College BIDAR-585401

"Add on Course "on soil and water testing

Theory Exam Attendence- 2022

Sl.No	Name of the student	Semester	Signature
1	Revansidda	B.Sc I Sem	Re
2	Gopal	B.Sc I Sem	Gunar
3	Veershetty	B.Sc I Sem	Wadey
4	Radhika	B.Sc I Sem	Radhila
5	Praveen Sadashiv	B.Sc I Sem	Part
6	Akash	B.Sc I Sem	Aut
7	Syed Lukman	B.Sc I Sem	1 Alp 11
8	Rajeshwari	B.Sc I Sem	Rajeshum
9	Pavan	B.Sc I Sem	Portos
10	Jyoti	B.Sc I Sem	Justo
11	Rani	B.Sc I Sem	Rank
12	Nameera Qurrat	B.Sc I Sem	Comercia
13	Shweta	B.Sc I Sem	Ab
14	Vishal	B.Sc I Sem	Or Ores
15	Vishwajeet	B.Sc I Sem	Vishwajeet
16	Praveen Biradar	B.Sc I Sem	Par
17	Ramkuar	B.Sc I Sem	Rankuman
18	Neha Anjum	B.Sc I Sem	Nehamium
19	M Vivek	B.Sc I Sem	inch
20	Anand	B.Sc I Sem	Anans
21	Umesh	B.Sc I Sem	coulsty
22	MD Ismail Shah	B.Sc I Sem	Formart.
23	SaikiranReddy	B.Sc I Sem	Soi
24	Sudeep	B.Sc I Sem	Foradar

Head of the
Chomistin Depr ment
Earmet Arts, Sc. & Comm. College
B I D A R - 585 401

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BIDAR-585401

K. R.E. SOCIETY'S KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR

Theory Exam - 2022

	B.Sc I SEMESTER SUB: SOIL AND WATER TESTING(ADD ON COURSE) MIARRS: 50
	NAME:-
	1. Hue denotes (A) Dominant spectrum (B) Lightness or brightness (C) Purity (D) Intensity
l	(b) Eightness_or_originates
	2. Phosphorus uptake in alkali soil in the form of
	(A) H2PO4- (B) HPO42- (C) PO43- (D) H3PO4
	3. Which fertilizer produce acidity in soil
	(A) Ammonium sulfate (B) Sodium nitrate
	(C) Calcium ammonium nitrate (D) Calcium nitrate
	4. Maximum N content found in N fertilizer
	(A) Urea (B) Anhydrous ammonia (C) Sodium nitrate (D) Ammonium sulphate
	5. Rock phosphate has P2O5
	(A) 10-20% (B) 20-40% (C) 30-50 % (D) 20-30%
	6. The conversion factor for calculating P from P2O5
	(A) P2O5 x 2.29 (B) P x 0.44 (C) P x 2.29 (D) P2O5 x 0.44
	7. The phenomenon slickenside found in which soil
	(A) Inceptisol (B) Vertisol (C) Gelisol (D) Spodosol
	8. Which organic fraction not soluble in both acid and alkali
	(A) Fulvic (B) Humic (C) Humin (D) All of the above
	9. In munsell colour chart hue 10 represents as
	(A) Red (B) Black (C) Grey (D) Yellow
	10. pF scale for Field capacity is
	(A) 2 (B) 2.5 (C) 3.5 (D) 4.5
	11. Available water held between
	(A) Saturation to wilting point (B) Field capacity to hygroscopic coefficient
	(C) Only field capacity (D) Field capacity to wilting point
	12. Soil colloidal particle shows the phenomena
	(A) Plasticity (B) Adhesion and cohesion (C) Flocculation (D) All of the
	above (b) An of the
	13. The central cation on silica tetrahedron is
	(A) A121
	(B) Si4+ (C) Fe2+ (D) None of the above 14. Which plant is used for indication of permanent wilting point?
	(A) Cofficient
	(A) Salllower (B) Sunflower (C) Marigold (D) Both A and C

15. Mica is a type of	clay mineral			
(A) 1:1	(B) 2:1			
(C) 2:1:1	(D) None of the abo			
16. Hydrogen bond f	ound in which clay mi	neral		(D) Beidelite
(A) Kaolinite	(B) Montmorill	onite (C) V	ermiculite	(b) Beldelite
17. Base saturation i	n lateritic soil		(D) > 2	007
(A) < 40 %	(B) $> 40\%$	(C) < 20%	(D) > 2	J 70
18. Immobilization of	of sulphur occur in soil	when C:S ratio is		200.1
(A) < 300:1	(B) > 300:1	(C) > 400:1	(D) :	> 200:1
19. Denitrification is	a process of			4 4
(A) Oxidation	(B) Reduction	(C) Hydration		Carbonation
20. Microorganism i	nvolve in conversion f			
(A) Nitrosomonas	(B) Nitrobactor	· (C) Pseudon	ionas	(D) Bacillus
21. Thiourea is type	of fertilizer			
(A) Slow release	(B) Nitrification inhib			
(C) Natural nitrifica	tion inhibitors (D) Artificial nitri	fication inhibite	ors
22. Chemical formu	la of thiourea is			
(A) CO(NH2)2	(B) SC(NH2)2	(C) HCN	(D) None	of the above
23. N content in thic	ourea is			
(A) 46% (B) 3	36.8% (C) 22.5%	6 (D) 33%		
24. Quantity of soil	to be taken for texture	analysis		
(A) 10g (B) 20g	(C) 30g (D) 4	0g		
25. The K2O conten	it in Illite varied betwe	en		
(A) 6 to 10%	B) 2 to 4% (C) 10	to 15% (D)	33%	
26. The microorgan	ism lies below < 10°C	is called		
(A) Psychrophiles	(B) Mesophiles (C) Thermophiles	(D) None	of the above
27. Thermophiles o	rganism lies in temper	ature		
$(A) > 45^{\circ}C \qquad (A)$	$B) > 25^{\circ}C \qquad (C) <$	$< 45^{\circ}C$ (D) $<$	< 25°C	
28. Optimum tempo	erature for mesophile			
(A) 10-20°C (B) 20-40°C (0	C) 40-60°C ((D) 15-20°C	
29. Which organism	n derive their energy f	rom oxidation of c	omplex organic	compound
(A) Heterotrophs	(B) Autotropl	is (C) Chemotre	ophs	(D) Lithotrophs
30. Organism utiliz	e carbon from CO2 fo	r their cellular syı	nthesis	
(A) Hetrotrophs	(B) Chemotropl	ıs (C) Autotroj	phs (T) None of the above
31. Most of the soil	organism is			
(A) Psychrophiles	(B) Mesopl	iles (C) Therm	ophiles	(D) All of the above

32. Optimum growth of bacteria in soil (A) A sidia (D) Slightly acidic to neutral
(A) Acidic (B) Alkali (C) Neutral to slightly alkaline (D) Slightly acidic to meaning
33. Fungi growth optimum in pH
(A) 2.5-4.5 (B) 4.5-6.5 (C) 6.5-7.5 (D) 7.5-8.5
34. Actinomycetes prefer which condition for their growth
(A) Slightly alkaline (B) Alkali (C) Acidic (D) Neutrai
35. Aroma of earthy smell in first shower of monsoon is due to
(A) Actinomycetes (B) Bacteria (C) Fungi (D) None of the above
36. Which genera of bacteria found maximum in soil? (C) Bacillus (D) All of the above
(A) Azotobacter (B) Pseudomonas (C) Bacillus (D) All of the above
37. Rhizobium is an organism
(A) Hetrotrophs anaerobic (B) Heterotrophs aerobic
(C) Autotrophs anaerobic (D) Autotrophs aerobic
38. Which nutrient influence the nodule formation and nitrogen fixation in soil?
(A) pH (B) N (C)P (D) All of the above
39. Nitrification process ceases at pH
(A) < 5 (B) < 6 (C) < 4 (D) < 7
40. Denitrification mostly takes place in (B) Apperais (C) Both (D) None of the above
(A) Aerobic (B) Anaerobic
41. Nitrification rapid in season (A) Winter (B) Rainy (C) Summer (D) All of the above
(A) Winter (B) Rainy (C) Summer (D) An of the above
(A) Winter (B) Ramy (C) 2-4 42. The peak microbial population was observed in soil generally after addition of residue (A) 3-4 week (B) 2-3 week (C) 3-4 days (D) 1-2 week
(A) 3-4 week (B) 2-3 week (C) 3-4 days (D) 1-2 week
43. For mineralization of P optimum ratio of C:N:P should be (A) 100:10:1 (B) 50:10:1 (C) 80:10:1 (D) 30:10:1
(A) 100:10:1 (B) 50:10:1 (C) 60:10:1
44. Ammonia volatilization is parely process. (D) None of the above
(A) Physical (B) Chemical (C) Biological (D) None of the above 45. Which element suppressed Downey mildew of pear millets?
(A) Chloride (B) Fluoride (C) Bromide (D) Element 46. Improper development of wheat inflorescence is due to deficiency of
(A) Months (A)
47. Organic matter obtained (A) OC x 1.724 (B) OC x 2.24 (C) OC x 1.55 (D) OC x 1.64
(A) OC x 1.724 (B) OC x 2.24 (C) OC x 1.55 (D) OC x 1.64 48. Saturated hydraulic conductivity is measured by
(A) Pycnometer (B) Tensiometer (C) Amoozemeter (D) Hydrometer
(V) Thenomere.

9. Hydraulic conductivity is found to decrease in the following order
A) K soil > Ca - soil > Na - soil (B) Na - soil > K - soil > Ca - soil
C) $Ca - soil < K - soil < Na - soil$ (D) $Ca - soil > K - soil > Na - soil$
0. Which chemical compound is used for improve soil aeration, infiltration and water holding
apacity of soil
A) Jalshakti (B) Fentachlore (C) Hydrotech (D) None of the above
51. Reddish colour in muriate of potash is due to
A) KCl (B) Colour reagent (C) Impurities (D) All of the above
52. Feldspars is primary mineral that occurs pre-dominantly in
(A) Igneous rock (B) Sedimentary rock (C) Metamorphic rocks (D) All of the abov
53. CO2 content in rainwater is
(A) 0.35% (B) 0.45% (C) 0.25% (D) 0.15%
54. In which point resistant to wind erosion in soil
(A) Permanent wilting point (B) Hygroscopic point (C) Field capacity (D) None of the
above
55. Bedrock is absent in which soil?
(A) Black soil (B) Red soil (C) Alluvial soil (D) Forest soil
56. Saline soil also known as
(A) Solonchalk (B) Solonetz (C) Sodochalk (D) None of the above
57. Kari is the local name of
(A) Acid soil (B) Saline soil (C) Acid sulfate soil (D) Alkali soil
58. The honey-comb structure found in
(A) Alluvial soil (B) Black soil (C) Saline soil (D) Laterite soil
59. Which soil occur mainly a soil crust problem?
(A) Sandy soil (B) Silty clay loam (C) Loamy soil (D) Clayey soil
60. Red colour of soil is due to
(A) Hematite (B) Geothite (C) Glauconite (D) Maghemite

K. R.E. SOCIETY'S KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR Theory Even - 2022

Theory Exam - 2022 SUB: SOIL AND WATER TESTING(ADD ON COURSE) Marks : 60 B.Sc I SEMESTER NAME:- Radhika 1. Hue denotes (D) Intensity (C) Purity (B) Lightness_or_brightness (A) Dominant spectrum 2. Phosphorus uptake in alkali soil in the form of $_$ (D) H3PO4 _(C)-PO43-(B) HPO42-(A) H2PO4-3. Which fertilizer produce acidity in soil (B) Sodium nitrate (A) Ammonium sulfate (D) Calcium nitrate (C) Calcium ammonium nitrate 4. Maximum N content found in N fertilizer (D) Ammonium sulphate (B) Anhydrous ammonia (C) Sodium nitrate (A) Urea 5. Rock phosphate has P2O5 (D) 20-30% (B) 20-40% (C) 30-50 % (A) 10-20% 6. The conversion factor for calculating P from P2O5 (D) P2O5 x 0.44 (C) P x 2.29 (B) $P \times 0.44$ (A) P2O5 x 2.29 7. The phenomenon slickenside found in which soil (D) Spodosol (C) Gelisol (B) Vertisol (A) Inceptisol 8. Which organic fraction not soluble in both acid and alkali (D) All of the above (e) Humin (B) Humic (A) Fulvic 9. In munsell colour chart hue 10 represents as (D) Yellow (B) Black (C) Grey (A) Red 10. pF scale for Field capacity is (D) 4.5 (B) 2.5 (C) 3.5(A) 211. Available water held between (B) Field capacity to hygroscopic coefficient (A) Saturation to wilting point (D) Field capacity to wilting point (C) Only field capacity 12. Soil colloidal particle shows the phenomena (D) All of the (C) Flocculation (B) Adhesion and cohesion (A) Plasticity above 13. The central cation on silica tetrahedron is (D) None of the above (C) Fe2+ (B) Si4+ (A) Al3+14. Which plant is used for indication of permanent wilting point? (D) Both A and C (B) Sunflower (C) Marigold (A) Safflower

and alon mineral
15. Mica is a type of clay mineral (B) 2:1
1 D Mana of the above
(C) 2:1:1 16. Hydrogen bond found in which clay mineral (A) Knolinite (B) Montmorillonite (C) Vermiculite (D) Beidelite
17. Base saturation in lateritic soil (C) $< 20\%$ (C) $< 20\%$
18. Immobilization of sulphur occur in soil when C.3 Tatto is $(A) < 300:1 (B) > 300:1 (C) > 400:1$
19. Denitrification is a process of (A) Oxidation (B) Reduction (C) Hydration (D) Carbonation
(A) Oxidation 20. Microorganism involve in conversion from nitrite to nitrate 20. Microorganism involve in conversion from nitrite to nitrate (A) Nitrosomonas (B)-Nitrobactor (C) Pseudomonas (D) Bacillus
21. Thiourea is type of fertilizer
(A) Slow release (B) Nitrification inhibitors (C) Natural nitrification inhibitors (D) Artificial nitrification inhibitors
22. Chemical formula of thiourea is (C) HCN (D) None of the above (D) (A) CO(NH2)2 (B)-SC(NH2)2 (C) HCN
23. N content in thiourea is
(V) (A) 46% (B) 30.370 (C) 2210
24. Quantity of soil to be taken for texture analysis (A) 10g (B) 20g (C) 30g (D) 40g
(A) 10g (B) 20g
25. The K2O content in Illite varied between (A) 6 to 10% (B) 2 to 4% (C) 10 to 15% (D) 33%
26. The microorganism lies below < 10°C is called (D) None of the above
(A) Psychrophiles (B) Westphiles (C) Thermophiles
27. Thermophiles organism lies in temperature (B) > 25°C (C) < 45°C (D) < 25°C
(A) > 45°C (D) > 25°C (C)
28. Optimum temperature for mesophile (D) (A) (D-20°C (B) 20-40°C (C) 40-60°C (D) 15-20°C
(A) 10-20°C (B) 20-40°C (C) 40-60°C (D) 15-20°C 29. Which organism derive their energy from oxidation of complex organic compound
(A) Heterotrophs (B) Autotrophs (C) Chemotrophs (D) Lithotrophs
30. Organism utilize carbon from CO2 for their cellular synthesis (B) Chemotrophs (C) Autotrophs (D) None of the above
(A) Hetrotropus (b) Chemotropus (C), times of the
31. Most of the soil organism is (B) Mesophiles (C) Thermophiles (D) All of the above
(A) Psychrophiles (B) Mesophiles (C) Thermophiles (D) All of the above

32. Optimum growth of bacteria in soil
(A) Acidic (B) Alkali (C) Neutral to slightly alkaline (D) Slightly acidic to neutral
33. Fungi growth optimum in pH
(A) 2.5-4.5 (B) 4.5-6.5 (C) 6.5-7.5 (D) 7.5-8.5
34. Actinomycetes prefer which condition for their growth
(A) Slightly alkaline (B) Alkali (C) Acidic (D) Neutral
35. Aroma of earthy smell in first shower of monsoon is due to
(A) Actinomycetes (B) Bacteria (C) Fungi (D) None of the above
36. Which genera of bacteria found maximum in soil?
(A) Azotobacter (B) Pseudomonas (C) Bacillus (D) All of the above
37. Rhizobium is an organism
(A) Hetrotrophs anaerobic (B) Heterotrophs aerobic
(C) Autotrophs anaerobic (D) Autotrophs aerobic (D) Autotrophs aerobic (E) Autotrophs and nitrogen fixation in soil?
38. Which nutrient influence the nodule formation and nitrogen fixation in soil? (A) pH (B)N (C)P (D) All of the above
(A) Jii
39. Nitrification process ceases at pH $(C) < 5 \qquad (B) < 6 \qquad (C) < 4 \qquad (D) < 7$
to ParitaiGentian mostly takes place in
(C) Both (D) None of the above
41 Nitrification rapid in season
(C) Summer (D) All of the above
42. The peak microbial population was observed in soil generally after addition
(C) 3-4 days
43. For mineralization of P optimum ratio of C:N:P should be
(C) (C) (A) 100.10.1 (B) 50:10:1
44. Ammonia volatilization is purely process of (A) Physical (B) Chemical (C) Biological (D) None of the above
(A) Physical (B) Chemical (C) Biological (C) Biological (C) Biological (C) Promide (D) Lithium
The wide (U) Drumuv
(B) There at inflorescence is due to deficiency of
(A) Molybdenum (B) Boron (C) Calcium (D) Magnesium
(R) OC x 2.24 (C) OC x 1.65
- Lie conductivity is measured by
48. Saturated hydraulic conductivity (A) Pycnometer (B) Tensiometer (C) Amoozemeter (D) Hydrometer
((2)

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49. Hydraulic conductivity is found to decrease in the following order	
49. Hydraune conductivity is rotated (B) $Na - soil > K - soil > Ca - soil$	oil
(A) K soil $> Na - (B)$ $Ca - soil > K - soil > Na - (B)$	soil
(C) Ca - soil < K - soil < Na - soil (D) Ca - soil > K - soil > Na	tration and water holding
	tile state of the state of the
(A) Jalshakti (B) Fentacinore (C) 2-3	one of the above
51. Reddish colour in muriate of potash is due to	A.H FAlso above
(A) KCl (B) Colour reagent (C) Impurities (D)	All of the above
52. Feldspars is primary mineral that occurs pre-dominantly in	- u cul - skovo
(A) Igneous rock (B) Sedimentary rock (C) Metamorphic i	rocks (D) All of the above
53. CO2 content in rainwater is	
(C) 0.25% (D) 0.1	5%
54. In which point resistant to wind erosion in soil	
	ld capacity (D) None of the
() () () () () () () () () ()	the state of the state of
above	
55. Bedrock is absent in which soil? (A) Black soil (B) Red soil (C) Alluvial soil (D)	Forest soil
(A) Diack soil (B) Red soil	
56. Saline soil also known as (D) Salashalla (D) N	lone of the above
(a) Sololichair (b) Sololich	done of the above
57. Kari is the local name of	Propriédante de la
(A) Actu suit (B) Suitine con (C)	Alkali soil
58. The honey-comb structure found in	discondition of the second
(A) Alluvial soil (B) Black soil (C) Saline soil (D) I	Laterite soil
59. Which soil occur mainly a soil crust problem?	
(A) Sandy soil (B) Silty clay loam (C) Loamy soil (I	O) Clayey soil
60. Red colour of soil is due to	
(A) Hematite (B) Geothite (C) Glauconite (D) Maghemite
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K.R.E. Society

Karnatak Arts, Science & Commerce College, Bidar.

Department of Chemistry

Add on course On Soil & Water Testing

External Key Answer 2021 – 2022

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

"Add on Course "on soil and water testing

Marks List- 2022

Sl.No	Name of the student	External Marks	
1	Revansidda		
2	Gopal	53	
3	Veershetty	50	
4	Radhika	51	
5	Praveen Sadashiv	59	
6	Akash	Ab	
7	Syed Lukman	Ab	
8	Rajeshwari	44	
9	Pavan	44	
10	Jyoti	59	
11	Rani	49	
12	Nameera Qurrat		
13	Shweta	50 74b 51	
14	Vishal	51	
15	Vishwajeet	00	
16	Praveen Biradar	40	
17	Ramkumar	55	
18	Neha Anjum	50 29	
19	M Vivek	29	
20	Anand	50	
21	Umesh	48	
22	MD Ismail Shah	47	
23	SaikiranReddy	30	
24	Sudeep	39	

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BIDAR-585401

"Add on Course "on soil and water testing

Marks List- 2022

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Sl.No	Name of the student	Internal Marks 20	Practical Marks 20	External Marks 60	Total Marks 100
1	Revansidda	20	19	52	91
2	Gopal	18	19	53	90
3	Veershetty	14	17	50	81
4	Radhika	18	18	51	87
5	Praveen Sadashiv	16	15	59	90
6	Akash	20	19	55	94
7	Syed Lukman	Ab	Ab	Ab	Ab
8	Rajeshwari	18	19	44	81
9	Pavan	17	16	44	
10	Jyoti		18	52.	88
11	Rani	18	17	49	84
12	Nameera Qurrat	14	15	50	79
13	Shweta	Ab	Ab	Ab	Ab
14	Vishal	17	18	51	. 86
15	Vishwajeet	19	16	32.	67
16	Praveen Biradar	14	17	40	子」
17	Ramkumar	18	19	55	92
18	Neha Anjum	18	19	50	87.
19	M Vivek	15	12.	29	56
20	Anand	417.	17	50	84
21	Umesh	18	19	48	85
22	MD Ismail Shah	11	10	H.7.	68
23	SaikiranReddy	12	13	.30	65
24	Sudeep	18	18	39	75
462	Jan Water	12 2 1		1 1	F

Head of the
Chemistry Depr.:mem Rarnatak Arts Sc. & Comm. Colley
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Karnatak Arts, Science & Commerce College, Bidar. Department of Chemistry

"Add on Course" on Soil and Water testing

Report

Name of the Course

: Soil and Water Testing

Name of the Department: Chemistry

Duration

: 30 hrs

Number of Students

: 24

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. This scientific inquiry tend to understand the status of soil and water resources which is important for agriculture. At the end of term we have conducted examination and issued certificates.

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