STCMBOI: Analytical Instruments in Microbiology Lab

# GOVERNMENT SCIENCE COLLEGE,

Class: 2018-19 Semester: Division:														
Batch	No:		12		Date	of F	ract	icals	take	n <sub>de</sub>	dh	مد	ch	_ـــــــــــــــــــــــــــــــــــــ
			100	00	100	910	10160181	0	14 104-1018	9	=	310/40102	ュ	=
Roll	1/4 N	Group/	9/44 B	10/2/01	11/03/118	217/018	क	61070	8	01601-87	19/07/1	िन	21/04	7. 0.7.
No.	Name of the Student	Subject	60	0	1/4	2	18	6	4	90	5	2	2	2
		Oubject			1	_	100	-	7	8	9	10	11	12
1	0 11	05 m	1	. 2	3	4	5	6	1,000	15.77		/American		
	Boradhira Koupali M.	T. Y. B.S.C.	0	æ	1	R	(A)	0	(2)	(b)	P	Ø	A	(A)
2.	Chardhari Hemanginik	11	He				(F2			The state of the s				
3.	Chandhall Kallishmy 2.	11	KP	KR	H	KR	KR	K	KR	14	KR	KR	P	KR
4.	Chandhari Postiben D.	)1	Poits	poiti			ponni	prixi	Pain	Party	Boith	Park		
5	chardhari Raving M.	1)	lanin	andred	Parell	pouls	OCTAN	20min		200h	Rawley	200	Zauld	Qaile
6	11 Rufeshkumar B.	1)	Blue	Ru	Rh	Bh	Bh	Bh	Rh	Bh	(R)	Be	Rh	BL
7	n Salmaben a.	17	Sapra	Segre	A:	Sepage 2	Sagua	Spri	ppy	Selve	Sopuy	Sapra	Spin	spry
8	11 Shivaniben H.	11	she	she	she		she	she			She			She
9	11 Shouti D.	(1)	Den	Day	Bei	Du	De	De	924			Sly		Ley
10	11 Snehalkymari A.	11	Sion		Such	Sher	Such	Such	A		Then	Such		Such
11	11 Tejushvini A.	11	KAC		KBC	< 60°	V&C	VE,	Rb,	K.RC	Kikr		(X)	(1)
12	11 Toushti H.	11	TIF	E		B	(III)	F		(P)	1		田田	
13	Gamit Rozma V.	111	Gum	Game	Gamp	Bendf	CVMY	Cumil	Cemia	Guns	fruge	Comp	Comp	Cump
14	Hamsbhai Siddikahmed R.	1)	HSK	HSR	HSM			14319			1143			MUH
15	Joshi Riyaben A.	11/20	ROU	KMU	MUL			Riyu						
16	Kadiwala Samabamy I.	1	Som	Same	Sum	Sunu	Seme	Semy	Syne	Suma	Server	Same	Stow	Sary
17	Kara Zakariya Yumus	-11	A	214	274	24	245	25	24	ZK				
18	Kathorwala Usama y.	191 6	4	A	M	M	M	W	M	W.	10000	M	w	W
19	Maisuriya Rimal C.	· U	Pm	B					(Pm	On		(Bm	Pn	On
20	Monya Shiyani S.	-11	(SSW	-	_	SSm	552	(SEN)	Sm	SSP	(C. m)	SN	(557)	(557)
21	Pater Timul I.	11 *	pale		Ruly		partel	Parte	putes	porta)	perto	pates		Perto
22	Patel cakelben D.	111	Wood			HENT	Monte	DONE	THE		Mode		CACH	Part
23	Patel khushu L.	11	10	40	00	M.	A	4	041	14		100	(M)	24)
24	Patel khushu R.	1)	HRAB	KKK	MA	MA	HUK	WAY	MAP	MAI	MA S	KP		MAT
25	Patel kinjal B.	11	N-BP	A	k-Ba	Mon	_	not	K-DI	inth	WAP	nor	KDY	MBP
26	Patel Maheshwari D.	11	pos	(g)m	(O)ca	Phy	(0)-0)	am	(pm)	Phy	(Pr)	m	(Um)	Pany
27	Patel Mital R.	Alle d	men	mtw	motel	moter	men	men	mhu	mite	mtu	mitu	mi tel	A
28	Putel Priza N.	11	Pro	m	One	2	200	James .	pm	E	m	Pm	1600	Rm
0.10	Patel Shirtumi R.	11 4	P. S. K	PON	BOX	Poda	Palet	P.GR	P.61	P.64	8.0	10	1.04	100
29	Patel Vandama M.	11	37	200	any	M	سر	1	Vinn.	1	-en	1	X	200
30	Pawar sneha s.	11	Janas .	2000	Son	800	gm	A	400	gm	Space	12	120	Smy
31	Rama Bhavisha M.	11.	Book	Boun		Ban	Boen	- Bau	Byo	-	Bur	3800	Bern	Brun
	Rathod Jayshri k.	U	JAOK	7,00	J. Rot	Just	5. Rot	D.Ad	15.90th	18,00	-	1,0	Pare	J.M
33	Shuh Pravi R.	1)	PAS	PRE	609	PRU	PAS	pos	PRS	668	PH	PH	bon	653
34	Surve Varanda R.	211	Fresh	Sion	Grove	Short.	NO.	grow	Gunt	6vo	CAS	Sec.	640C	Swork
35	Vankiya Himani H.	11	barmi	Him	Him	Henr	Him	Agan	Him	HEM	w Him	-		
36	Marya Sushma C.	11	vasev			1000	1270	rus	YOUR	YCUR	Your	Your		Day 2
37	14244	1)	SEVE	gw	ew	A	Sans	Sm	San	SW	Steel	Sen	-	SCA
38	VI UCITI VI DI III	S. V. BSC	A	An	A	1	An	AL	All	AB	Am	A	AX	
39	Atodoroju kejal M.	Micro	Ami	Ami	Ami	BM'	Ami	Am	Ami	Am	Ami	Am	Am	Ami
40	Chardhan Ammesh V.		11.1									15		
											1			
A	im or Details of the Practi	cal /	1 3											
A	ercise perfomed on the sai	d date				1	ł							
EXC	Stelse berrows													-
								-						
				2~	in	is	P		Fine	O	0	10	O	OF
Sig	n. of Teacher/Lab In-cha	0	10	10	10	0	10							

#### VANKAL TA. MANGROL DIST. SURAT

_	_	_	V	AIN	IN	L	IA.	IAT	AIN	uk	UI	עי	151.5	UKAI			
		Ro	II Cal	Reg	ister	for th	e Pra	ctical	s of t	he 1s	t / 2	nd T		THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW	Yé	9 %	
										-			ماماء	fostors	110	3 0	1.50
S		4/	اود	ate o	of Bra	actica		ken	do	4		30	7	5	3	\$ 2	
	25/07/18	3		10	0	Jostol	108/01	10	31081018		3	01-108-10	20	0		10	1
olf 1 us	F	26/07/16	0/40/42	28-107-101	30/07/0	7	7	2108/10	7	10810	6 los lue	0%	20	13	Whether	3 0	
-	2	0	0	10	0	0	00	0	0	-	0	1	No. Textra	Total no. of	certified	Domento	
2	23	92	53	188	8	6	7	N	3	7	9	Ö	attended	practicals	for the	Remarks	
13	14	15	16	17	18	19	20	21	22	23	24	25			term/ year		
13	14	13	10	17	10	19	20	21	22		Hitcher		1		year		
0	0	6	R	R	R	P	00	1	P	100	(B)	æ	®.	(A)	B	(A)	<b>®</b>
Pos	The second second		In the second second		A	Pr	The second second	1	-		P	P	P3	(PS	Ps	R	FR.
K	P	D	14		_	KR	10	KR	KR	KR	KR	KR		KR	KR	KR	KR
100000	-	-			KR		N- N					Port		P81'+1'		Biti	
chieco	Gan	PHIN	Porth	print	Pritt	Bary		Prit							Baiti	Asiai	podi
phy	Danja	Con	Pauly	Paril	Ponisi	BOWN	Quiv	pavi		Burn				Poulm	poulty	A	Bruhu
Ph	Bh	(Re	(Be)	(R)	(BB)	(Re	Ph	(Re	(Be	Ph	Bh	(Bh	Teh	(BA	(R)	(R)	(R)
6890	Sapra				Supri	Sapr	Copy	copy	sapu	Supry	Sapra	70 bus	Suprig	Se pry	sapra	saying	sapray
	-	-		-	-	_	-		100000000000000000000000000000000000000	she	4.5	che	shee	cl.	clas	Sher	cla
sher				She	she	vshe	She	SKO	0		250	100000		Shot	Shel		sher
		17	BI		Do		Deu					82	Qu .	Du	Du	Du	Fly
meh		Sheh	Inch	Such	Snel	Soh	Suels					_	Svels	Sich	Such	freh	Sheh
CA?	AC	K82	K.AC	Kibo	18	12	( A)		VV.	18	130	V. Y.	(A)	C.RC	1.P.C	5. A.C	K.A.C.
P	T			THE P		TP	P	1	B	(TP	P	TP	(II)	TO	(IP)	(IP	OP.
ALL ALL		-	_		Comi a				-			Gmip	Granta	bring	Gmith	ComHA	Comite
	fill on the	The same	-	11111	Salara III	Contract of	1000	100			District and	and the same of	Contract of the last		- Distriction of the last of t	All and a second	
	HSI9			HA	- 0	HIN	7		HIM	-		-	HSK	MIN	HSIT	HEM	HSK
riya	Krya	Kon	Kin	Rou	A	Klon	RM	Rou	Royu	RMY	MM	MIYL	High	Ryu	Riyu	Alya	Kryu
ums	San	Serve	em	Soul	Sun	Sumi	Sunt	Sem	emi	Same	Sana	Seme	Serne	Sara	Sure	Suru	Saru
44	ZK	ne	24	21/	ZK		24				24	245	24	245	2K	245	2-K
山山	Carrier .	M	W	र्भ	W	W	W	M	2	Δ	W	M	w	20	थ	w	
	M			_	_			-		(2)							A
Bm	@m	Pry		Bm	BM	By	<b>B</b> m	By	(P)	<b>®</b> 2	(A)	Bn	(Br)	On .	B/	D <sub>1</sub>	-
500	(50)	(55%	(SSN)	(SSM)	(SSP)	SSA	(SSM)	(SSW)	(SSM)	(SSM)	Sin	6500	(582)	(SSN)	(Sn)	SSA	
ales	porte	Port	pubj	puts	etig	futo	Parto	portes	total	cetup	puts	fulg	Pertrel	puty	Pates.	fates	Pata
porel	amil	Republic	Cool	Doul	GOH	MELL	CON	april	April	appla	(tood	part	Weath	<b>Warte</b>	Rate	Matal	Bold
3		60	GA		1	W	W.		10	10	To	0	1		900	(ID)	00
00	u DI	110	4.0		104	100	121	Vol	TO	100	val	TIPA	W.Lah	X. Kull	D. hall	K. L.B.	T.
													Kihit	RIPSHI		- OIF	Lih
					K-BA								A	A	hel P	A.B.P	~ K B
300	phy	(by	Ba	Pro	(An	Phy	Do	Bus	pm	(D)	Pms	PM	Pm	Any	Poss	Pm	am
	mter	-mit	Land	-ntal	mhe	miter	Lym	- 141	C.Jul	Here	Tales	comfe	L miral	mterl	mitul	mitel	moul
SS CO	200	po	00	pry	Pur	pmy	pm	pm	Pm		Ba	Pm	pm	ans	pm	Rmy	pm
013	naa	060	06.0	P.S.R		$\sim$	P.S.R.	_		PAR		PSA	P.G.	P.O.R	P.5.A		P. S.
4	HATTER STATE	July W	NA	I'm	Jmy	WW.	LM		Ving	NA.			M	The		P.S.B.	P. 01
2	الموا	V	2			1				V		m		1	M		Thy
M	BM	In	Suns	Barr	mg	800	and	am	gus	80	BM	gm	you	300	In	Gm _	ghy
som.	280m	Back	Boles	Born	Brem	Brown	BANA	Brum	Barn	Bru	13 Min	P. S. Line	Bren	Brune	Penn	Benn	Bruny,
ROLL	ACH	7.00	FROM	10075	+04	MATE	500	( Dell	T Ach	+ fest	T. PON	MT Key	losted, th	3. Rother	J. Rothe	J. Rottod	J. Rot
													PM	pro	PPU	PRI	V. IV
V-2	Man A	PE	CAN.	0.000	PRA	700	715	PPA	Tro	PPO	PILO		1907		BURNEM	SHOVEN	our
	MOON				5UTEN								A				-
Same.	Him	A	Himmi	Him	Him	Hima	Hom	Hima	14/2	Himi	14/20	Himm	Hum	Hemni	Monay		Hmun
حاد	yours	yesay	nus	your	nusy	Young							rwares	Ywawy	yurs	Across	MAT .
					SW								Same	Schu	sor	Sav	
14	AK	Ab	AH	Alu	Ah	ALL	AL	A	AU	AK	AK	AK	AR -	ABI	M	AK	AR
										-			-	V V			
mi	ami	Am	Am	Ami	Ami	Ami	Am	Am	Am	Ami	Am	Am	Ami	Bmi'	Ami	A	Ami
<b>P</b>	0	Ö	Ö	· ·	(P)	· •	O,	Ö	Ö,	) Ö	0	©	· O	· 🕞	(F)	· **	(B)

#### GOVERNMENT SCIENCE COLLEGE,

Class	Class: Division:														
Batch	No:				Date	e of I	Prąct	icals	take	n ,				4	
			1	=					70	70	3	=	31	1	1
Roll		0	14/18	7	TIE	ाइ ०३।	11418	16/91	8114/4	14/21	4	17	17	-	
No.	Name of the Student	Group/ Subject	3	10	11	4	2	9	7	40	5	102	2	2	
		Gubject	1	2	3	4	5	6	7	8	9	10	11	12	
41	Clarifornia Aminto	S. Y. B.S.C.		10000			1000			1000					
42	Chaudhar Amujali R. 11 Asmita A	2. A. B.K.	O D	Mar	Arm	O'A	لعد	A.W	Arb.	COCONIO	original and	mit	Maria	Bruk	
43	11 Hamma N.	111	dismo-	Danie	5	65mg	1900	CHO!	Yumo	n	Chemica	Lundy	COMPA	Ω	1
44	11 Koushik D.	11	(Paula	(Q.sb	Huma	Christin	CHO	D. ibix	(Dulan)	0	0.4	A	A	Qual !	1
45	11 khullboo S.	11	Doely	agel	A	und	Robert	ale .	Tall	Date	For Ol	Qu (	Bul	noole	1
46	11 Koupa M.	11	Kmc	Work	More	Mac	Mood	March	Nove	More	King	they	King	April	ł
47	11 Mayor S.	11	0	0	0	0	0	00-	0	0	0	M	m	0	
48	11 Meghana A.	11	U	CO	09	Medh	man	Organ	Cooper .	COM!	Oglan Oglan	Open	A	(12) COL	
49	11 Mimaxi D.	1)				Section 1	OF		DI	OW	Or .	DO TO	W	W.	
50	11 Mishautu R.	11 0	M	M	M		M.		M	0	0	0	M	M	
51	11 Prodjeti C.	11	gest.	Bosh.	Coop	000	A STATE	Barry Contraction	Care Con	Oct		63.9		66 C	
52 53	11 Pointiksha D.	11	gul	A W	que	Osal I	Color	and	Carl	Real	Ac	Clas	Pal	6 h	
54	11 Prifanta V.	1)	Co	Englis	E CONT	O Notate	n	Prodet	ender	A	Notes	Pho-	of de		2
55	11 Snehy K.	11	Church Control	Charle	almet	O NOT	Ahude	Shuch	a web	A water	di	Shu		T rath	1
56	11 Smehajali J.	11	Panel	Photo	Phatron	Phore	A	May	Rholy	Short	Dhill-	(Draly)	Bhut	Thopsay	
57	11 Snehajali J.	115	F3hu	FRENCH	(Talul	Res	A	624	foll of	Mil	Rig	Tale	MI	934	ł
58	11 Tushap k.	11	Herek	Trend	Trail	Elie	Que	Thurs	Hos	Thos	A	Though	Tary	Our	
59	11 koutika A.	11	(due	12 res	Die	khe	( Just	A	Jours	Kelos	Duy	dy	Qy	Du	-
60	Dobazija Abhishek V.		A								and				
61	Gamit Wisha J.	))									N.J.9		H S Tril	NJ.97	1
62	11 Sanjana A.	11					Gun				(Dy				1
63	11 Sonal D.	11	Spy	-	A	S.PY	_	Soy	Sod	Soj	(pg	Spg		1	1
64	a Military III	11				_	Telen		The same of the sa	Troper		Tigue			
66	Gandhi Shivemi S. Kesooki Digvijaysinh		Dul		004	Day	Should	2	900	11.09	Bul	De	1000	(gland	1
67	kher Poiti M.	11	MAY	and	2nV	early	N.	ANT	Rat	ZIN	Dealy	245	2013	JUNE .	4
68	" Tunvi R.	11	The	Phoy	The	Ria	Phys	Pul	Dry	The	730	Da	Plas	RR	1
69	Kosudo APexa H.	TIE,	A.41.7	MI	A.H.Y	4.H.K	TH.A	A.H.T	AHK	A.	AXA	4.H.1	A.H.F	AHA	₹.
70	11 Brumika H.	11	Down	Animi	grund	A	A.	Donn	grum!	Bound	Burny	Sylmi	BANK	Duri	7
71	Mahida Purvahi D.	11	Prahad	A	Prophiet	Priced	Preha	Pruha	puly	prush	Pred	P. Much	P. Tues	Prudu	4
72	Magnarola Nilam N.	1)	O Day	Orlean	Oilly	Outre	ally	Dila	Oilly	Pill	A	Niles	Ohle	Oden	1
73	Mangrola shivani V.	11	Wash	min	Mra Br	Was !	A	Mary	briels	bruk	Mily	Maga	A WA	Mulds	Ĭ
74	More Zeel M.	11	600	1600	Car	0	W	000	cen	000	600	poer	1200	See	7
75	Patel Bhoomika A.	11	W/	100	196	1000	The same	The	100	A	(A)	Ne s	100	- Tan	
76	11 Bhakti M.	11	Bpu	A	Blan	3/24	(phase)	Guy	Cou	(30-	Bour	Blan	Bee	Blos	× ×
77	1) Dinkal N.	11	Oppos	Das S	De la	1 Syral	(a) a H	I A	t (a) at	a Cont	6 (D) N	Puts One	Plate	( ) al	2
79	11 Roiganshy S.	11	84800	PERME	100	alpho	ODA.	anny	DREED	S. Cont	S OVOCE	Die C	land	1 08/20	
80	Odna: () S	* 11 :	J. (580)	1 CABUM	Kara	J. S. Lan	Mary	1910	1000	V80	L NOW	Value	4 060	ul van	1
80	11 Vavi of	_ 11-	0.9	100	OSI	07	Vor	000	1047	·	wy	1/00	Vey	100 pe	7
									1						
	im or Details of the Practi							100							
Exe	ercise perfomed on the sai	d date					1								
															-
Sig	n. of Teacher/Lab In-cha	rge	0	0	70	00	冷	Dis	00	90	Pia	O) R	Pio	70	y
				10	10	10	10	10	10						

#### VANKAL TA. MANGROL DIST, SURAT

Roll Call Register for the Practicals of the 1st / 2nd Term Year Date of Practicals taken So of extra 00 Whether 30/7/18 1/20/ 4 200 4 + 100 B of tounal B Total no. of practicals Sertified 143 28 Memarks pocticals for the attended term/ 0 13 14 15 17 22 year 16 18 19 20 25 21 23 24 Qh. Ph Als ah A Phanax Bh A Dranghaman OFDIN DEMHU Britte A CONTROL OF THE STATE OF THE S Bull A Quit Divo West out of the Agrika CHEMICAL CHE A Cough! (Hummu CHUMME Bushik Work 4 Kelle Wal 1200 Karl Kinc Miny Krong Bore Gray Kong was your Bores Kmy 000000 000 (2) 09 megloou Cop Copy Copy Copy Copy Copy A neghan Colliforn Colliforn A Mu CON CON CON CON WILL OF OF ON ON ON ON ON ON Day MUNI M M 3 M General Grown Grow A A Poul Pusk Rock Rul 2hr (p) lu (Phu (Phu Py. cherther P.V. charity e.v. deduri ev dredies Schoolhor Syland Schaudn guerre Provjedi granger pel There Rough Palue Arthurthy the druggly dis A thinking the Fluery Freezes Flere Elul Chur due celes (church church celes (church church celes (church church) Klus Fles Rheid Aug Amily A ' A week plant of the company of the contract of NS SMIT H-19mit H.J. Tmit AJ9mit agani A Ogno Oyum Olan Onge Court Ogun Oyum Oyum Oyum Syund Synth Sychit (09 (04 509 509 509 504 A Sog SPG SOT SOT GAS SOT SOT Spg Degreet Da ford Britis Britis Diding of the Wall of the British County of the County of Dogun Spanely A Cost Charles Grant Cont Court (Stant Cycar Grant Cycard Cycard Cycard Communic Grandhe Sofrey( fores pulle Day Die Die Die Die Brief Brief Die Die Jes Dies Dies Dies Jenry A and and and A some and and and and and are PMK RMY PMY The Ries The Play Play thing this Rhy Play Plux Phy Play Those Rha Rker Rher A.H.Y. ATTATIVA ANT ANT ANT ANT ANT ANT A 1.41.4. A.H.K. A.H.K. Chart with the chart chart chart the contract of the same A Brim Thumi Bhymi Bam Prochat P. Meland Min Min A Miles Diller Willer John College & wife & Pmahia Pmahid Nive Nelvy Willing Dilws Mingh! COMPANIENTO NOTE PROSESTA PROPERTY COMPANIES PROPERTY PRO Mayer Munitrol MUKRY Deel Zee Reel The Rus. Dever Bloud Rus Blows 13/04 TOPEN THAT BOWN BOWN BLOOK BLOOK BOWN BOWN BOWN BOWN BOWN BOWN BOWN Diag. Vett 2nd Down Court Broth God Both Doth Dout Proth Spate Proth Dout Dout Out Out Of of the Smeth Church Preter plos (P) potes (Pelparty party Chart A Rect Chart Chart Chart Chart Chart Chart Chart Chart speating spetts Se putes Sports 389 to 8 Note of his to have show show is board to be strong as some A should expect Ulved Ubipels Ubild A were wine with want send stand went went want went want want was want (0) (D) (0) 0

#### **GOVERNMENT SCIENCE COLLEGE,**

Class	: Sem	ester:			D	ivisio	on:_					-		
Batch	No:				Date	e of I	Pract	icals	take	n				,
	,		70	18		30					=	=	3/16	=
Roll		Group/	श्रीर/	81/2/01	311-6/11	12/7/	13/7/118	16/7/18	शासास	14/21	31718	11/102	1/3	3171
No.	Name of the Student	Subject	0	0	=	2	13,	16	7	70	13	2	6)	23
			1	2	3	4	5	6	7	8	9	10	11	12
81	Pathan Roshni I	S.Y.B.SC.	Durk	Parence	Photo	Plane	(F) leds	(P) wh	(F) Pods	(PP4)	A	Perte	PER	10 peda
82	Sathavara Riddhi P.	- 11	Riduly	27/14	Riddy	Ridde	RAPPA	riddu	Pille	evelle	King)	Ridly	eille	eille
83	Solanki Shaqdha N.		898	811	818	8ng	823	803	Sis	808	sort	300	800)	Shy
84	Taili Payal Big		Raylo	A	PLATE	nya.	0.50	poyle	pyla,	Put	py a	Pyar	0	CONT
86	UPadhayan Poiyamdu G	11	Qu	-	Regue	Print.	(A)	Priva		A	A	Acr	Kays	an a
87	11 Devika V.	· il		_		New	A	DULUTZ.		150	-	Deed	Digt	Der
88	11 Rashmita J.		ely			Ou			dy	الملق	34	PS	The	1
89	11 Sejal B.	11	-	-	-	-	-	World	Found !	(Word)	Sami	0000	(Convi)	Carrie
90.	1) yatin F	CH RSC	Oi		(P)	(Xe)		(19)	(%)	(X)	Y	The Car	(L)	4
91	Chandhari Bhumika J		B5.0	BILL	33000	3.5d	BYON	G.Tum	85.chm	BJ.de	8 I dust	BJan	A	83.dm
93	11 Dipalkamani J.	11	W		100	O L		Ola	1	710	200	ela	मुव(	ole
94	11 Hetrovi J.	1)	Wedow											TENT
95	11 Hiral R.			Moude	Hard	Felin	Couri	(Hundr	Charit	Dadi	demi	And	Chari	Flori
96	11 Jeenal or.	1)	om	Quari	Gun	ain	Dun	gui	Bur	dhi	Own	Bruni	Bun	Duni
97	11 jimal H.	11	There	This	J'HO?	249	1) de	3.Hd-4	THELE	The	J.Hold	THE	THU	THOM
98	11 kamini V.	11	Kind	(Laury	Pure mark			Cours			-			The second second second
99	11 Maheshvari J.	11	naudin		cluent					dudri	min.		Til.	
100	11 Pathik M.	11		Paris P.W						(P.C)			Car	(Balan
102	11 Pogjaben D.							(Burn				-	_	Quina
103	11 Rashami N.	1)												2.N.C
104	11 Sagat N.	-11	curry	_	Bui	-		_	(June)		-		-	
105	11 Shubham S.	11	druth	Charle	3 miles	A	A.m	Strum	Classed	Delen	distale	ملعمل	A	anna
106	11 Smital S.	11	Broth	Graft	Grant	Grant	3 mi	A	Sink	Sink	Bank	(Semi	Blumit	Smit
107	11 Smehal A.	11	# WY	teme	Small	400th	Taba	1	The state of the s	april.	#3hd	though !	+ a	temeth
108	11 Twinkal P.	11	TUM	11	This de	A	(Jahr	th	(toh	(toly	Toli	Jan.	GUI	THA
110	11 Nishakha R.	1	2	700	Ques!		Tam	4 Zheiri	d and	العرب المع	To al	- N	A we	in an
111	11 Mehul R.	11	man	Δ	nde	mon	mon		meth	mely	or chal	Mary	Man	metul
112	11 Nulua D.	11	aver.	They	Bury	DUP!	MAD	MOUNT	-	1	aus	S. Land	N CONDO	Milus
113	Gamit Bintika M.	11	(Bun)	9-31	(Pust)	A	Buch		Burn	FA	Bun	A	Burn	
114	11 Jemini s.	11-	350gm	SSYL	1.900	1500	3.59km	159L	15910	15900	53.90	N Squi	15.gu	1590ml
115	11 Mahima D.	1)	M.D	Mum)	FIB	Gami	180	bermin 1	LYND.	Man Man	" Game	of com	Mum Dan	# A
116	11 Maitoi R.	11	Collen	To have	Own,	Guar	Citi	+ Cam	Cin	Com	* CE	of Cott	in Oil	+ Carry
117	11 Sejal N.	11	(June	(8)	(Jan	(30)	(30)	N ALTON	807	SW.	(30)	(4)	Ton's	Solder
118	11 Smehal N.		can	100.00	10 M	COLOR		1005	1005	1051	wi	NOUS.1	4000	1 6
119	11 Subhi S.	11	Born	No.	(S)		_	Gmi		-	-	M Carri	_ A	+ Orm
120	Kamsara Deep k.	(1)	(DK)	(RUE	1 Section	(PK)	) USA	(M)	(DR)	- Ou	OBK	D) (D) R	D (B)	- 100
								1 3						100
	im or Details of the Practi													
Exe	ercise perfomed on the sai	id date											7	
Sig	n. of Teacher/Lab In-cha	(0)	70	100	10	ic	7 6	方方	à	76	5,40	ON	70	
		1	1	10	10	10	7	1	1	1				

#### VANKAL TA. MANGROL DIST. SURAT

Roll Call Register for the Practicals of the 1st / 2nd Term Month Year Date of Practicals taken ルニナ 8 18 do 70 Whether 2 de 4 4 1874 do 90 4 d 6 No. of extra Tourno. of Cortified For the 25 92 7 practicals actended Remarks 2 3 practicals 9 term/ 17 18 19 20 21 22 13 14 15 16 23 24 25 year BY YOUR EINE ENGLE ENGLE ENGLE OLAR CHAR ENGLE ENGLES ENGLES CHAR ENGLES CHAR CHARLES RAKELY @pky @ Puka Prong Ridati Richler xiddly Ridbi Sul Sol Sny Sny who take who come who who who will with colo who who will be and with the payed Quyal) Payed payed Print single six Print Drive Drive and reing thing Print Print Prints Pryse press A Driga A ARARARARA And. Du P Ton Day Des Des Des Dies Dies Des Per H They from Dies. During Vusz press Was Or Plante Brown Charles Buy EN (PL) PHUES Roet Cerus Plus De Sand Sond Sond A Ednit Drill Doni Bori Bori Boni Hoori Coul Dri Coril Bruit (Sarut Camit Samit 2220 (A) (A) (A) (2) (X) A BILD BILL BIOM 324 BZd 830 BJd BJU BJU BJU BJO BJ. dry 33.40 BILL B.S.din B.Jdm 8.J.dm A Pintendendend A Zon Zon Zon Zon Zon 2014 2004 Direct Rose Rony The Hold Dolla So Jake Colly Dolla Do Dla A 2 Old. dest state destructions and the second state of the second state o Hetersh A HETELEST 95 Hande to short Journ Goods Bush Journ Julia Jam of Journ of well down June (Denother) Aundhor Hondhai Andlan 96 Jun Du Berd Fleen Dein A dudio Juli Good forch forch forch forch of therein Taken Lylyis dollerin dusi A THOUSHOW SHILL S THUMS J.H. duri 3. Helm J. Hchi 98 Bus (Jam Cour Cour) (Com) Com dura tour Cours (Jam) Cours (Bessie) Downist Course (Blayi) my true times there was the few of the contract the true there the there M-Jin M.J. A Cold Coult Bother Bother Coult County Country Coult Colix Colix Colix Colix Rdik (Refile BLIK A FUEVED ED ED ED ED FOR ED ED FOR FOR Pw (P.W) P.W (P.L) any our A amader aun aun and and the thest and and Blandin Bondin (Acom Pronudni 30 of between to the took wet we soot the trick we the 30 c A 2.N.C 2.N.C R.N.K Sheroly dumi Queri Bury's Dinery County or holle to be to the total t destorm desturm da Torm tombul + deal tonelet Frebyl. Adhi Colifferiali Coliferi Dui Poliferi Chi Poli Coli a Poli Poli Addis Poli Y Y A 11111 11 N 1 1 1 Company of the grant of the state of the sta Thempha (Darkers) Durylland A moball now moderated A read not many many make make make Meday many mely mehy WHEN THE WAR WAS CONTRACTED TO THE WAS CONTRACTED BY THE WAS CONTR (Navoux Mulyer Pupus MyBUX Bord Broad Boart Bernt Ramit Brit Quitariat A Brist Boot 3 wal A Brown A Brown Dist (See A) Romin A Broat Bunil A 1 gament J.S. Front 7. S. France J. Squart A Gunit M.R. (Gumit gamit (Remit (mile) A Curry Cour Cour Cour Cour Bury Court Come (ann) Comit Grans Conwilt want t (Demis mit SN Event Born Bornt Grant Qmit Comit Quit A 00 (1) (A) A A (0) (0) (O) (0)

#### GOVERNMENT SCIENCE COLLEGE,

Class:	Sem	ester:		_	D	ivisio	on:								
Batch	No:			Date	e of I	Pract	icals	take	n				مد		
			70	70							مد	2017/18	70	23/09/18	1
Roll		Group/	श्रीमार	10/7/18	11/7/18	4	13/7/18	16/1/18	17/7/11	शासाक	19/3/18	4	21/7/18	3/0	
No.	Name of the Student	Subject	0	0		12	5	20	뇬						-
			1	2	3	4		6	7	8	9	10	11	12	
121.	Parmar Maya G.	F. y. BSC	PM9.	0199	pmg	prog	png	png	pmq	pmq	prig	pMg	pma	gne	1
122.	Parmar Maya Gr. Patel Bhymika R.	11	Patel	Patel B.A	Patel	ogtel B.R.	ng sy	Pag.	Pule	强发	Poster	guy	Pater	Pare	,
123.	11 Denisha M.	- (1	Denie	Quita	Denish	0	Oo H	Doub	Ocnid	Derth	Conth		Const	Son	1
124.	11 Shefali D.	11 (	Phys.	Th W	WKO!	Make	2 pade	10/10	JOSH JOSH	ishin	10/h	10 yrs	10/m	1000	7
126	Rathed Asmite C.	11	But	3	dien d	Ning?	Dane	A	Varia	Demi	elson	Jun J	Spir	Bris	1
127	Shaikh Fiza S.	0	Esh	A	Egh	Ogh	Och	Bh	Dyn	Egh	CUL	1	Rah	regh	K
128-	Vagava Ajay G.	11	Ajuy	Al	Akiy	A	Ajur	Ajay.	Hay Boar	Ajay	ALM	Ajun	Apr	Ay	1
129.		U	000	Ogo.	(300)	Sparre Contract Contr	Store	400	God!	Book	1300 C	Aje	Bar S	A	1
130.		- 11	<b>B</b>	0	H	0	A sol	08	Nag.	10/2 V	100 M	A Cod	1 mal	Are	1
131.	11 Pinal P.	11 !	Siner	Xina	Arr	11,	Ares	X.	XI.	X 1 /	χ ν.	XV	Α,	7,	1
		-	× V												
							1	1/4							
															-
											_	_			1
-															1
			I I												1
					(6)										
	and the second														
															-
															+
-				1											-
		761	(19)		3. 1										1
														4	
			12	α .						- '!		11		PI	1
					417-2	- 12									-
															+
		100													1
										J. P.	-				
							8.	177	14						
				(a)											
-													-		
-									-						-
25.00	aim or Details of the Practi ercise perfomed on the sa	70											-		
Sig	gn. of Teacher/Lab In-cha	irge	Ö.	Ö	70	100	70	70	0	0	7 0	i.	Ö	0	)

### VANKAL TA. MANGROL DIST. SURAT

		Ro							_				erm Mor		Yea	or .	- 1
		KU			of Pra					181				7	<u>√</u>		18
de	30	70	ول	35	7	7	7	1	8	٠	7	7	70	30	Whether	20	16 18/18
7	7	7	7	4	7	7	17	118	7	2	00	7	No of extra	8	jounal	1	1
4/12	25/7/18	14/92	शिक्ष र	20	60	-	18	30	318118	41814	61811	शाश्री द	No of extra practicals attended	Total ao. of	certified for the	Remarks	100
		2.002.000		17	18	න 19	20	21	22	23	24	25	attended 26	24	term/	29	30
13	14	15	16	-ini				pmg			om)	1				pmg	Pm
mg	Pater	PM9	pmp	PH THE	pmg raty	Date!	Patel	Ryfel	Pater			party	pars.la	pmg	pmg partel C.R	A	A
	Denis	Don't	Don't	Donis	000	Osal Con	Devil	Dis	Die	Don't	Our	Denis	Dendy	Deusto	Double	Double	De
			Cons			Cost	(Jahr	(Specie	Ent	Spall	Cal	Winds	Patel	Sporte	& parter	(Spart)	Q
200	10A	JOA	Took	West.	Jest	Hools	ted.	YOU	Hed	John	Yex	Hox	Neshar	tehus	John	Herry	70
افعدا	Car.	(الراب	No.	Bour	Mar 8	Your	Var	Wen	1 Ser	No.	Nov	Mar	Mark	Office	Mary	Dan	Br
0,	22	PC)	AN	Osh	ETA	ar	BA	Bh	35	egr	Ph	righ	Esh	19h	CSL	Osh	A
200	Δ1-17	Ajay	ich	Ajay	Alen	Ajer	C	ABOT	AITH	Ajay	Ajay	Ajan	Airy	Ajoy	Alay	Tinu	Aja
201	1000	point	100	Brais	Broth	40 m	GOL	Spir	18 Dur	SON	CO'		Aligy Applied	Alog Alog	Bester	Boite	
A	A	Ø.	A	4	4	Ø	A.	St.	Ø,	SA	124	SA	Ø.	A.	SA	×,	4
al al	Dres	And	And And	V. no	1 mg	AR	Vice	15	Are	NA	X. Lea	Alme	Riner	King	Wind	Musy	AN
Ker	Are	X	1	7	1	4	1	1	/	7	1	1	1	/			1
																	1
															-		1
										1			_				
																	1
																	-
	7	II.		7						19-11							
					4								-				
																	1
																	1
							-	Total .									1
-						Y									-		-
	7					.1		-									-
-												2.1					-
_																	-
-								, 1	1 3		1020						-
																	-
										- 10							+
									G.	-						-	-
					-												-
										*							
					1												-
														i			
														Land of the			
										1 = 1					-		
									-				(S)	10	9	j	100
							200				7-	7'	100	Q.	(())	((1))	1

### **Government Science College, Vankal**

Short term Course: Analytical Instruments in Microbiology Lab

Course Code: STCMB01

Duration: 30 hours (1 hours per lecture)

Syllabus covered

Day	Module	Topic	Hours
1	Module 1: Introduction to Analytical Instruments in Microbiology	Overview of analytical techniques in microbiology	1
2	Module 1: Introduction to Analytical Instruments in Microbiology	Importance and applications of analytical instruments	1
3	Module 2: Spectroscopy	Principles of spectroscopy	1
4	Module 2: Spectroscopy	UV-Vis spectroscopy	1
5	Module 2: Spectroscopy	Infrared (IR) spectroscopy	1
6	Module 2: Spectroscopy	Fluorescence spectroscopy	1
7	Module 2: Spectroscopy	Applications in microbiology (e.g., detection of biomolecules, quantification of microbial growth)	1
8	Module 2: Spectroscopy	Hands-on session: Operating a UV-Vis spectrophotometer	1
9	Module 3: Chromatography	Principles of chromatography	1
10	Module 3: Chromatography	High-Performance Liquid Chromatography (HPLC)	1
11	Module 3: Chromatography	Gas Chromatography (GC)	1
12	Module 3: Chromatography	Thin Layer Chromatography (TLC)	1
13	Module 3: Chromatography	Applications in microbiology (e.g., analysis of microbial metabolites)	1
14	Module 3: Chromatography	Hands-on session: Performing TLC analysis	1
15	Module 4: Electrophoresis	Principles of electrophoresis	1
16	Module 4: Electrophoresis	Gel electrophoresis	1
17	Module 4: Electrophoresis	Capillary electrophoresis	1
18	Module 4: Electrophoresis	Applications in microbiology (e.g., DNA, RNA, and protein analysis)	1
19	Module 4: Electrophoresis	Hands-on session: Running and analyzing gel electrophoresis	1
20	Module 5: Centrifugation	Principles of centrifugation	1
21	Module 5: Centrifugation	Differential centrifugation	1

Day	Module	Topic	Hours
22	Module 5: Centrifugation	Density gradient centrifugation	1
23	Module 5: Centrifugation	Ultracentrifugation	1
24	Module 5: Centrifugation	Applications in microbiology (e.g., cell fractionation, isolation of subcellular components)	1
25	Module 5: Centrifugation	Hands-on session: Using a centrifuge for cell separation	1
26	Module 6: Microscopy	Principles of microscopy	1
27	Module 6: Microscopy	Light microscopy	1
28	Module 6: Microscopy	Phase contrast microscopy	1
29	Module 6: Microscopy	Fluorescence microscopy	1
30	Module 6: Microscopy	Hands-on session: Using light microscopes	1

#### **Government Science College, Vankal**

Short term Course: Analytical Instruments in Microbiology Lab

Course Code: STCMB01

Duration: 30 hours (1 hours per lecture)
Time Table

Day	<b>Module</b>	Topic	Hours
1	Module 1: Introduction to Analytical Instruments in Microbiology	Overview of analytical techniques in microbiology	1
2	Module 1: Introduction to Analytical Instruments in Microbiology	Importance and applications of analytical instruments	1
3	Module 2: Spectroscopy	Principles of spectroscopy	1
4	Module 2: Spectroscopy	UV-Vis spectroscopy	1
5	Module 2: Spectroscopy	Infrared (IR) spectroscopy	1
6	Module 2: Spectroscopy	Fluorescence spectroscopy	1
7	Module 2: Spectroscopy	Applications in microbiology (e.g., detection of biomolecules, quantification of microbial growth)	1
8	Module 2: Spectroscopy	Hands-on session: Operating a UV-Vis spectrophotometer	1
9	Module 3: Chromatography	Principles of chromatography	1
10	Module 3: Chromatography	High-Performance Liquid Chromatography (HPLC)	1
11	Module 3: Chromatography	Gas Chromatography (GC)	1
12	Module 3: Chromatography	Thin Layer Chromatography (TLC)	1
13	Module 3: Chromatography	Applications in microbiology (e.g., analysis of microbial metabolites)	1
14	Module 3: Chromatography	Hands-on session: Performing TLC analysis	1
15	Module 4: Electrophoresis	Principles of electrophoresis	1
16	Module 4: Electrophoresis	Gel electrophoresis	1
<b>17</b>	Module 4: Electrophoresis	Capillary electrophoresis	1
18	Module 4: Electrophoresis	Applications in microbiology (e.g., DNA, RNA, and protein analysis)	1
19	Module 4: Electrophoresis	Hands-on session: Running and analyzing gel electrophoresis	1
20	Module 5: Centrifugation	Principles of centrifugation	1
21	Module 5: Centrifugation	Differential centrifugation	1

Day	Module	Topic	Hours
22	Module 5: Centrifugation	Density gradient centrifugation	1
23	Module 5: Centrifugation	Ultracentrifugation	1
24	Module 5: Centrifugation	Applications in microbiology (e.g., cell fractionation, isolation of subcellular components)	1
25	Module 5: Centrifugation	Hands-on session: Using a centrifuge for cell separation	1
26	Module 6: Microscopy	Principles of microscopy	1
27	Module 6: Microscopy	Light microscopy	1
28	Module 6: Microscopy	Phase contrast microscopy	1
29	Module 6: Microscopy	Fluorescence microscopy	1
30	Module 6: Microscopy	Hands-on session: Using light microscopes	1



#### DEPARTMENT OF MICROBIOLOGY



Date: 20/08/2018

Sr. No. SCTMB01/2018-19/20

This is to certify that Mr. / Ms. Monya Shivani S. has successfully completed Short Term Certificate Course of 30 hours on STCMB01:Analytical Instruments in Microbiology Lab offered by Department of Microbiology from 09/07/2018 to 16/08/2018 and secured "A" grade during performance evaluation.

Principal

**Course Coordinator** 

**Head of the Department** 

HJumarkur



### DEPARTMENT OF MICROBIOLOGY



Date: 20/08/2018

Sr. No. SCTMB01/2018-19/54

This is to certify that Mr. / Ms. <u>Chaudhari Priyanka V.</u> has successfully completed **Short Term** Certificate Course of 30 hours on <u>STCMB01:Analytical Instruments in Microbiology Lab</u> offered by Department of Microbiology from <u>09/07/2018 to 16/08/2018</u> and secured "<u>A"</u> grade during performance evaluation.

**Principal** 

**Course Coordinator** 

Munnarkur

**Head of the Department** 

HJunarkur



#### DEPARTMENT OF MICROBIOLOGY



Date: 20/08/2018

Sr. No. SCTMB01/2018-19/113

This is to certify that Mr. / Ms. <u>Gamit Bintika M.</u> has successfully completed **Short Term** Certificate Course of 30 hours on <u>STCMB01:Analytical Instruments in Microbiology Lab</u> offered by Department of Microbiology from <u>09/07/2018 to 16/08/2018</u> and secured "<u>A"</u> grade during performance evaluation.

Principal

**Course Coordinator** 

**Head of the Department** 

MJunarkur



### DEPARTMENT OF MICROBIOLOGY



Date: 20/08/2018

Sr. No. SCTMB01/2018-19/66

This is to certify that Mr. / Ms. <u>Kesrola Digvijaysinh N.</u> has successfully completed **Short Term** Certificate Course of 30 hours on <u>STCMB01:Analytical Instruments in Microbiology Lab</u> offered by Department of Microbiology from <u>09/07/2018 to 16/08/2018</u> and secured "<u>A"</u> grade during performance evaluation.

Principal

**Course Coordinator** 

**Head of the Department** 

MJunarkur



### DEPARTMENT OF MICROBIOLOGY



Date: 20/08/2018

Sr. No. SCTMB01/2018-19/32

This is to certify that Mr. / Ms. Rana Bhavisha M. has successfully completed Short Term Certificate Course of 30 hours on STCMB01:Analytical Instruments in Microbiology Lab offered by Department of Microbiology from 09/07/2018 to 16/08/2018 and secured "A" grade during performance evaluation.

Principal

**Course Coordinator** 

**Head of the Department** 

MJunarkur

#### Government Science College, Vankal Department of Microbiology Short term course (2018-19)

Course Name: Analytical instruments in Microbiology Laboratory

Roll No:

Date: 16/08/2018

1. Which technique is o	commonly used to meas	sure the absorban	nce of light by	y microbial cultu	res?
A) Gas Chrom	atography B) Spect	rophotometry	C) Mass S	pectrometry	D) Fluorescence Microscopy
2. What analytical met	hod is used to separate	and analyze prote	eins based oi	n their size?	
A) Gas Chrom	atography		B) High-Pe	erformance Liqui	id Chromatography
C) Gel Electro	ohoresis		D) Atomic	Absorption Spec	ctroscopy
3. Which technique inv	olves the use of specific	c antibodies to de	tect and qua	ntify antigens?	
A) ELISA (Enzy	me-Linked Immunosork	pent Assay)	B) PCR (Po	olymerase Chain	Reaction)
C) Mass Spect	rometry		D) Spectro	photometry	
4. Which of the followi	ng methods is used for	the quantitative a	analysis of nu	cleic acids?	
A) Fluorescen	ce Microscopy		B) PCR (Po	lymerase Chain F	Reaction)
C) Atomic Abs	orption Spectroscopy		D) Gel Elec	trophoresis	
5. Which analytical tec	nnique is employed to c	detect microorgan	isms by thei	r interaction with	n specific fluorescent dyes?
A) Flow Cyton	netry		B) Spectro	photometry	
C) Mass Spect	rometry		D) Gas Chr	omatography	
6. What is the primary	purpose of using a cent	rifuge in microbio	ology?		
A) To measure	e light absorption		B) To identi	fy bacterial spec	ies
C) To quantify	nucleic acids		D) To separa	ate microbial cell	ls from a liquid medium
7. Which of the followi	ng instruments is used 1	for the high-resol	ution imagin	g of bacterial cel	l structures?
A) Scanning El	ectron Microscope		B) Bright-Fie	eld Microscope	
C) Phase Cont	rast Microscope		D) Atomic Fo	orce Microscope	
8. Which technique is u	used to measure the cor	ncentration of me	etal ions in m	icrobial samples	?
A) Gas Chrom	atography		B) Mass Spe	ctrometry	
C) Atomic Abs	orption Spectroscopy		D) High-Perf	ormance Liquid	Chromatography
9. Which of the followi	ng methods involves the	e use of electrom	agnetic radia	tion to identify o	chemical compounds in a sample
A) Infrared Sp	ectroscopy B) Flow C	cytometry C)	Gel Electropl	noresis D) P(	CR (Polymerase Chain Reaction)
10. Which technique is	used to detect specific	proteins by utilizi	ing antibodie	s labelled with a	detectable marker?
A) ELISA (Enzy	me-Linked Immunosork	pent Assay)	B) Western	Blotting	
C) Mass Spect	rometry		D) Spectroph	notometry	
11. What is the primary	y application of gas chro	omatography in m	nicrobiology?		
A) Identification	on of microbial species l	based on metabo	lic products	B) Quantificatio	n of nucleic acids
C) Separation	of proteins by size			D) Detection of	bacterial cell wall components
12. Which technique is	used to observe living i	microbial cells in t	their natural	state without sta	aining?
A) Phase Cont	rast Microscopy	B) Fluorescence	Microscopy		
C) Bright-Field	Microscopy	D) Electron Micro	oscopy		
13. What is the purpos	e of using a fluoromete	r in microbiology?	?		
A) To measure	e fluorescence emitted b	oy samples	B) To separa	te proteins base	d on size
C) To quantify	metal ions		D) To visuali	ze cell morpholo	gv

14. Whi	ich analytical method is used to determine the sequer	nce of nucleic acids?
	A) PCR (Polymerase Chain Reaction) B) Sequencing	ng C) Mass Spectrometry D) Gel Electrophoresis
15. Whi	ich instrument is used for real-time monitoring of mic	robial growth in a culture?
	A) Spectrophotometer B) Microplate Reader C	Flow Cytometer D) Centrifuge
16. Whi	ich technique is used to measure the amount of a spe	cific DNA sequence in a sample?
	A) Gel Electrophoresi	s B) Western Blotting
	c) RT-PCR (Reverse Transcription Polymerase Chain F	Reaction) D) Mass Spectrometry
17. Whi	ich technique is employed to visualize the distribution	of specific RNA molecules in cells?
	A) In Situ Hybridization (ISH) B) Flow Cytometry	C) Spectrophotometry D) Gas Chromatography
18. Whi	ich of the following instruments measures the intensit	y of light scattering to determine cell size and complexity?
	A) Flow Cytometer B) Spectrophotometer C) A	tomic Absorption Spectrometer D) Mass Spectrometer
19. Wh	at is the main use of a transmission electron microsco	pe (TEM) in microbiology?
	A) To measure the concentration of microbial culture	es
	B) To separate proteins by size	
	C) To obtain high-resolution images of internal cell st	cructures
	D) To identify bacterial species based on metabolic b	yproducts
20. Whi	ich analytical method is used for the rapid identification	on of bacterial pathogens by comparing their protein profiles?
	A) MALDI-TOF Mass Spectrometry	B) Gel Electrophoresis
	C) High-Performance Liquid Chromatography	D) Atomic Absorption Spectroscopy
21. Wh	at technique is used to determine the binding affinity	of a ligand to a target protein?
	A) ELISA (Enzyme-Linked Immunosorbent Assay)	B) Western Blotting
	C) Gas Chromatography	D) Surface Plasmon Resonance
22. Whi	ich method is used to identify bacterial strains by anal	ysing their metabolic byproducts?
	A) Mass Spectrometry	B) Biochemical Testing
	C) PCR (Polymerase Chain Reaction)	D) Fluorescence In Situ Hybridization (FISH)
23. Whi	ichh of the following is used to observe the surface fe	atures of microorganisms at high magnification?
	A) Confocal Microscope	B) Bright-Field Microscope
	C) Scanning Electron Microscope (SEM)	D) Transmission Electron Microscope (TEM)
24. Whi	ich analytical method provides information on the mo	lecular weight of compounds in a sample?
	A) Mass Spectrometry	B) Infrared Spectroscopy
	C) High-Performance Liquid Chromatography	D) Spectrophotometry
25. Whi	ich technique is used to visualize specific cellular comp	ponents using fluorescent dyes?
	A) Bright-Field Microscopy	B) Phase Contrast Microscopy
	C) Transmission Electron Microscopy	D) Fluorescence Microscopy

#### OMR ANSWER SHEET

EXAMINATION: Shoot term cource 2018-19 (STC-1)

EXAMCENTER GOVERNMENT Science college Vankal

Name: Moniza shi vami s.

1						
1	,	Q. ANSWER	Q. ANSWER	Q. ANSWER	Q. ANSWER	Q. ANSWER
	1	<b>/</b> (A ● (C) (D)	11/●®©®.	21 A B C •	31 (A) (B) (C) (D)	41 (A) (B) (C) (D)
	-	2 A B ● D	J7 ● 3 © 0	27 (A) ● (C) (D)	32 A B C D	42 A B C D
	4	1 ● ® © ®	<b>₩</b> • ®©®.	23/A B • D	33 (A) (B) (C) (D)	43 A B C D
	<u>\</u>	4 ⊗ ● © ®	11 (0 B ● D N		34 (A) (B) (C) (D)	44 A B C D
	~	5 <b>●</b> ® © ®	15 ( ) ● © ® N		35 (A) (B) (C) (D)	45 A D C D
	4	(Ø®©●,	16⁄(A) (B) ● (D)	26 ABCD	36 A B C D	46 A B C D
	V	/ ●®©®,	y ● ® © ®	27 A B C D	37 A B C O	47 (A) (B) (C) (D)
	X	8 <b>0</b> 0 0 0 <b>0</b>	19∕ ● ® © ®	28 (A (B) (C) (D)	38 A B C D	48 A B C O
1	4	• (0 (C) (C)	19 (A) (B) (B)	29 ABCO	39 A B C O	49 A B C D
	10	(A) ● (C) (D)	<b>€</b> ● ® © ®	30 0 0 C O	40 ABOD	50 A 9 C 10

# OMR ANSWER SHEET

EXAMINATION Shoot-team coyase 2018-19 (STC-1)
SUBJECT Analytical Instrument in microbiology lab
EXAM CENTER: GIOVERNMENT Science college Vankal

Name:-Chaudhai Paiyanka V.

	Q. ANSWER	Q. ANSWER	Q. ANSWER	Q. ANSWER	Q. ANSWER
0		X a • © 0	27 AB©	31 (A) (B) (C) (D)	41 (A) (B) (C) (D)
~	(A) (B) (D)	12 • B © D	27. (A) <b>(</b> (C) (D)	32 A B C D	42 A B C D
V	1 0 0 0 0	17 • B © D,	23- A ® ● ®	33 A B C O	43 A B C D
~	1 <b>( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (</b>	14- ( ) ( ) ( ) ( ) ( ) ( )	24 6 B C D	34 A B C D	44 A ® © ®
	5 0 B C D	18 (	<b>X</b> A B ● D	35 (A) (B) (C) (D)	45 A B C D
~	6 Ø ® © ● v	\$ (0 (0 € 0)	26 (A) (B) (C) (D)	36 A @ C @	46 (A) (B) (C) (D)
X	7 ⊗●©®,	17 <b>●</b> ® © ®	27 (A) (B) (C) (D)	37 A B O O	47 (A) (B) (C) (D)
4	(B®●®,	15 ● ® © ®	28 (A) (B) (C) (D)	38 (A) (B) (C) (D)	48 (A) (B) (C) (D)
V	( ) ( ) ( ) ( ) ( )	18- (i) (B) ● (b)	29 (1) (B) (C) (D)	39 (A) (B) (C) (U)	49 (A) (B) (C) (D)
10	(A) ● (C) (B)	<b>*</b> • ⊕ © ⊕	30 (N)(D)(C)(D)	40 (A (B) (C) (D)	50 (A) (B) (C) (D)

#### OMR ANSWER SHEET

EXAMINATION Short-team COURSE - 2018 - 19 (STC-I)

EXAMCENTER: Choverment Science College Vunkal

DATE: !

Name: - Gamit Bintika M.

Î		Q. ANSWER	Q. ANSWER	Q. ANSWER	Q. ANSWER	Q. ANSWER
	L	1 A • C D	X1 000	21 ABC •	31 (A) (B) (C) (D)	41 ABCD
-	X	2 <b>0 3 © 0 •</b>	12 • B © 0.		32 A B C D	42 A B C D
	1	3 • (B) (C) (D)	11 • 0 0 0	X 3 ® ● ®	33 A B C D	43 A B C D
	1	( (A) ( (C) (D) (C)	14 ( O O O )	<b>X</b> 4 ① ® © ●	34 (A) (B) (C) (D)	44 A B C D
	4	5 0 8 C DL	15 A B ● B	25 3 ® © ●	35 (A) (B) (C) (D)	45 A D C D
		(@®©●)	<b>X</b> 6 ● @ © @	26 ① ® © ®	36 A U C D	46 A W C D
	1	7 • ® © ©.	11 • @ © @	27 A B C D	37 ABCD	47 (A) (B) (C) (D)
V	1	5 <u>3 © ● ®</u>	18 ●B©®	28 (A) (B) (C) (D)	38 A B C D	48 A B C O
ı	1	9 • (1) (3) (2)	19 (1) (3) ● (1)	29 ABCO	39 (A) (B) (C) (U)	49 A B C D
	X	0 (9 (9 (9 <b>)</b>	20 • W C W	30 (A) (B) (C) (D)	40 A B C D	50 (A) (B) (C) (D)
	. !					

# OMR ANSWER SHEET

EXAMINATION: Shoot term Course 2018-19 (STC-1)

EXAM CENTER: Crovernment Science College Vunkal

DATE: !

Name: - Kesnoly Digvijaysinh N.



1	ę.					
a.,		Q. ANSWER	Q. ANSWER	Q. ANSWER	Q. ANSWER	Q. ANSWER
	_	7 A ● © D(	11 • 3 © Q	21 A B C ●	31 (A) (B) (C) (D)	41 (A) (B) (C) (D)
44, 141, 141, 141	_	2 A B ● Q	12 ●®©®,	22 ③ ® ● D	32 A 9 C D	42 A B C D
-	1	3 • (1) (C (1))	43	23 A B • D	33 A B C D	43 A B C D
	~ ~	1 0 ● © 0 0	14 ( © © Q	24 • (B) (C) (D)	34 A B C D	44 A 3 C D
	~	% ● B © 0,	15 (A ● © (D)	25 A. <b>Q</b> © ®	35 (A) (B) (C) (D)	45 A B C D
	X	6 ● 18 © 10 √	16 A B • D	26 A B C O	36 A B C D	46 A W C D
	1	76 ● ® © © X	17 0 • CO	27 A B C D	37 A B C O	47 (A) (B) (C) (D)
	1	J @ ® ● ®	18 ● ® © ®	28 (A) (B) (C) (D)	38 A B C O	48 A B C O
-	X	· s • ® • @ (		29 ABCO	39 (A) (B) (C) (D)	49 (A) (B) (C) (D)
		M (A) (D) (B) (B)	29- <b>●</b> (()(()()()	30 (A) (B) (C) (D)	40 ABCD	50 A B O O
-	1					*

## OMR ANSWER SHEET

EXAMINATION: Short term Cource 2018-19 (510-1)

SUBJECT: Analytical Instruments in microbiology lab

EXAM CENTER: Government Science collage, Van Kall

DATE:

Name: Rang Bhavisha M.

36

9

Q. ANSWER	Q. ANSWER	Q. ANSWER	Q. ANSWER	Q. ANSWER
	<b>√</b> • ® © (		31 (A) (B) (C) (D)	41 A B C D
✓ A B • D	<b>1</b> ● ® © (		32 A B C D	42 A B C D
<b>♣ Ø © ©</b>	<b>₩</b> • 3 © (	0 ex 30 • 0	33 A B C D	43 A D C D
	V @ • © (	2 A O O O	34 (A) (B) (C) (D)	44 (A) (B) (C) (D)
*@B•0	F (A (B) (C) (	<b></b>	35 ABCD	45 A B C D
1000 •	14 00 • C	26 A B C O	36 A U C D	46 (A) (B) (C) (D)
<b>+</b> ⊕•©®	A ●®©©	27 (1) (1) (1)	37 A B C D	47 (A) (B) (C) (D)
y ⊗ © • ®	+ 0 • © ©	28 A B C U	38 (A) (B) (C) (D)	48 (A) (B) (C) (D)
<b>∮</b> ⊕ ⊕ © ⊕	<b>√</b> (A) (B) <b>⊕</b> (D)	29 ABCD	39 A B C O	49 (A) (B) (C) (D)
1 ( A • C B	<b>₩</b> • • • •	30 0000	40 A B C D	50 (A) (B) (C) (D)