Department of Biotechnology

<u>Proforma for submission of progress reports for Annual Review of Colleges supported under</u> <u>Star College Scheme</u>

(Kindly note that the annual report from S.No. 6 to 10 should not be more than 10 A4 size sheets, with font size 12pt and line spacing 1.5)

1	Name of the College	Shri	Manibhai Virar	ni & Smt. Navalben	Virani S	Science		
		College (Autonomous), Affiliated to Saurashtra University,						
		Rajk	Rajkot.					
2	Name of Coordinator,	Er. R	Ravi S. Tank					
	designation, Address, Phone nos	Head	l, Department o	f Industrial Chemis	stry,			
		Shri Manibhai Virani & Smt. Navalben						
		Vira	ni Science Colle	ge (Autonomous),				
		Yogi	dham Gurukul,					
		Kala	wad Road,					
		Rajk	ot, Gujarat- 36()005 (India)				
		Mob	ile No: 9099076	114, 9825114015				
		Land	lline no: 0281-2	562681 Extn : 2226				
3	Assessment Duration	01/06/2018 to 31/05/2020						
4	Assessment duration in years	02 ye	ars					
5	Details of Departments	S	Name of	Courses	Regula	r Faculty		
	Supported	Ν	Department	(B.Sc./M.Sc./PG)	Me	mbers		
				Offered	Tot	Total = 27		
					With	Without		
					Ph.D.	Ph.D.		
		1	Industrial	B.Sc.	3	6		
			Chemistry	M.Sc.	5	0		
		2 Mathematics B.Sc.		1	9			
				M.Sc.	1			
		3 Biology Allied Course to						
				Life Science	4			
				(Ancillary	-			
				Department)				

		4	Physics	Allied Course to		
		4	Fliysles			
				Chemical Science	3	1
				(Ancillary		
				Department)		
6	Number & Date of Advisory	Date	: 06 th October 2	2018		
	committee meeting:	Minu	ites of the Meeti	ing		
		•	All Dept. Heads	(Coordinators) pres	ented the	eir progress
			before the Mento	oring Committee.		
		•	After presentation	on, constructive sugg	gestions	were given
			by experts fol	lowed by evaluati	ve discu	ussion and
			brainstorming of	n the impact of the	e DBT s	cheme and
			future planning a	activities.		
		• '	The experts appr	reciated the efforts o	f the ent	ire team for
			all activities carr	ried out for achievin	g targete	ed outcome.
			The expert also	gave critical sugg	gestions	for further
			betterment of im	plementation of the	scheme.	It was felt
			that the activities	s of the scheme has j	provided	platform to
			nurture all the sta	akeholders. The activ	vities car	ried out has
			promoted balanc	ed learning, interdisc	ciplinary	learning, &
		learning beyond curriculum. Activities regarding				
		popularization of science also have short of yield results.				
			Expert lectures a	are acting both as a r	means of	motivation
			as well as proc	cess for networking	and ex	pansion of
			facilities.			
7	Qualitative improvements due to	1.	Increased Ac	ademic-Industries	& Ac	ademic –
	DBT support. Please highlight 5		Academic inter	action.		
	salient points (within 500	2.	Increased inte	rdepartmental activ	vities &	awareness
	words).		among staff as	well as students.		
		3.	Creation of rese	earch ambiance at U	G level.	
		4.	More number	of faculty / staff en	nrichmen	t programs
			and student cen	tric activities.		
		5.	Strengthening of	of teaching and learn	ing resou	irces.
		For		the activities cond	-	
			endix-I.			
L						

8	Any Novel aspect introduced or	The college has introduced "Peer Tutoring : Think-Pair-
	planning to introduce during the	Share" aspect to augment learner centric approach under the
	Scheme duration.	support under DBT Star Scheme:
		The conventional teaching learning methods have been
		augmented with peer tutoring & learning methods, in which
		students get opportunity to prepare, deliver & get enriched
		with knowledge of the allotted subject topic. The main goal of
		peer tutoring is "Think-Pair-Share" to help students who have
		not yet mastered a certain subject or skill. However, this
		technique does not exclude others. It does not replace whole-
		class instruction or individual work. Rather, it provides a way
		of helping students when these two things have not been
		enough for them to master the material at hand. It helps online
		students deepen their understanding and clarify the knowledge
		that they have already gained. Typically, a higher performing
		student is paired with a lower performing student to review
		critical academic or behavioral concepts.
		Minor research projects have been given to the students to
		increase the disciplinary, interdisciplinary & multi-
		disciplinary research aptitude among undergraduate students.
		Please refer Appendix-II.
9	Lessons learnt / difficulties	Due to implementation of Star College Scheme the college has
	faced/ suggestions if any, in	gained upliftment in the following areas:
	implementation of the program	Interdepartmental & Interdisciplinary Activities
	and utilization of DBT grant.	Peer Tutoring
	(Max 3 points within 300	Participative Community LearningBotanical Herbarium
	words).	 Learning Commons
		But along with the above, the supported departments of the
		college also faced some of the problems like:
		• Business community hence less interest towards PG
		program.
		 More inclination of students towards professional courses like Engineering, MBBS etc.
		courses into Engineering, hibbs ote.

1. Key performance indicators

SN	Indicator	Pre-support		During /After											
									Support						
1	No. of students admitted		Tota	l = 2	223			Total = 236							
		M	M=152 F=71			M	=100)		F=	-136				
		SC ST 3 0	OBC G		ST 1		BC G 18 51	SC 5	ST 4	0BC 38	G 53	SC 3	ST 0	0BC 20	G 113
2	No. of students passing out		91-	100	%	1					93-1	00%		1	1
	(%) Students Admitted/														
	passing out (pass %)														
3	Drop-out rates		0	-1%							<1	%			
4	No. of students opting for			51							7	7			
	M.Sc.														
5	Average marks		50 t	o 80	%						50 to	90%	ó		
6	No. of hands-on experiments			30							10	55			
	being conducted														
7	No. of new experiments		NIL		59										
	introduced								Pl	ease	refer	Anr	nexu	re-I	
8	Publications (scopus			01							0	6			
	indexed) /patents, if any.								Ple	ease	refer	Ann	exu	re-II	
9	Training received by faculty			45							1	10			
									Ple	ease 1	refer	Anne	exur	e-III	
10	Exhibitions/seminars/training	02					0	6							
	courses conducted								Ple	ease 1	efer .	Anne	exur	e-IV	
11	Books/ journals subscribed	Nil			Ple	ease	refer	Ann	exui	re-V					
	from grants														
12	Outreach activities (Popular	01 15													
	lectures)														
13	Colleges mentored to apply		1	NA							N	A			
	for DBT Star College grants														
14	Invited lectures			05							09				
								Please refer Annexure-VI							

2. <u>Self Evaluation</u>

Department	*Objective (as stated in proposal)	% achieved	Reasons for underachievement / If achieved, state in quantitative metrics
Industrial	1. To enhance the relevant knowledge base	100%	Kindly refer to the key
Chemistry,	and skills of the students & teachers.		performance indicators
	2. To encourage students/teachers to undergo		above.
	specialized skill based trainings.		
Mathematics,	3. To enhance students creativity leading to original / live research projects and		
	publications.		
Biology,	4. To enhance global competence to face / meet the global challenges.		
	5. To promote linkages / collaboration with		
Physics	industries / national laboratories / institutions.		
	6. To encourage interdisciplinary approach in teaching, learning and research.		
	7. To strengthened physical infrastructure leading to enhanced academic ambience		
	and updated facilities.		
	8. To enhance library and ICT resources		

• For quantitative analysis you may fix five objective (max) each having 2 marks and accordingly can calculate the matrix.

ann Er. Ravi S. Tank

Course Coordinator



Ladva D

Principal Shri Manibhai Virani and Smt. Navalben Virani Science College (Autonomous) Rajkot.

Annexure-I

New Practicals Introduced

Sr. No.	Aim of Experiments(UG-2018-19)
1	To determine the specific gravity of given kerosene liquid sample.
2	To determine co efficient of discharge for a flow meter using closed circuit orifice meter.
3	To determine co efficient of discharge for a flow meter using closed circuit venturi meter.
4	To determine kinematic viscosity of kerosene using Saybolt viscometer
5	To prepare cellulose nitrate from raw cellulose.
6	To prepare biodegradable polymer film from starch without additives.
7	To prepare biodegradable polymer film from starch using addtives.
8	To determine pressure drop of ring main system.
9	To find moisture content of petroleum product by Karl-Fischer manual method.
10	To prepare paper from pulp by caustic soda process.
11	To examine the effect of decolorization of methylene blue using activated charcoal.
12	To electroplate copper on given object.
13	To scan the absorption spectrum of clay and to determine the wave length of maximum absorption by spectrophotometry.
14	To determine chlorine content in given common salt sample.
15	To determine calcium content in given gypsum sample.
16	To determine the % of baking soda using NaHCO3 powder.
17	To determine the unknown concentration of citric acid in given sample using washing soda solution.

Sr.	Aim of Experiments(UG-2019-20)
No.	
1	To study measurement of flow using rotameter.
2	To determine kinematic viscosity of kerosene using Redwood viscometer
3	To determine polymeric properties of cellulose acetate.
4	To determine polymeric properties of biodegradable polymer.
5	To determine polymeric properties of Dacron.
6	To determine element in polymer sample.
7	To determine the amount of copper in copper plating bath by gravimetry analysis.
8	To determine the amount of copper sulphate in copper plating bath.
	To scan the absorption spectrum of clay and to determine % transmission of different
9	concentrated sloution by spectrophotometry.
10	To determine the copper content in given sample.
11	To determine the zinc content in given sample.
12	To determine the Magnesium content in given sample.
13	To determine the chlorine content in given Hydrochloric acid.

Sr. No.	Aim of Experiments(UG-2019-20)
14	To crystallize common salt by heating process.
15	To separate acetic acid-water mixture using simple distillation.
16	To prepare phthalic anhydride from phthalic acid.
17	To prepare benzoic acid from toluene.
18	To prepare benzanilide from aniline.
19	To prepare phenyl benzoate from phenol.
20	To prepare iodoform from ethanol.
21	To prepare iodoform from acetone.
22	To prepare m-dinitrobenzene from benzene.
23	To prepare p-nitroacetanilide from acetanilide.
24	To prepare p-bromoacetanilide from acetanilide.
25	To prepare 2,4,6-tribromophenol from phenol.
26	To prepare 2,4,6-tribromoaniline from aniline.
27	To prepare aniline from dinitrobenzene.
28	To determine the smoke point of petrol.
29	To determine the flash and fire point of petrol.
30	To estimate Cephalaxin in the given sample.
31	To determine the Aspirin content in the given sample.

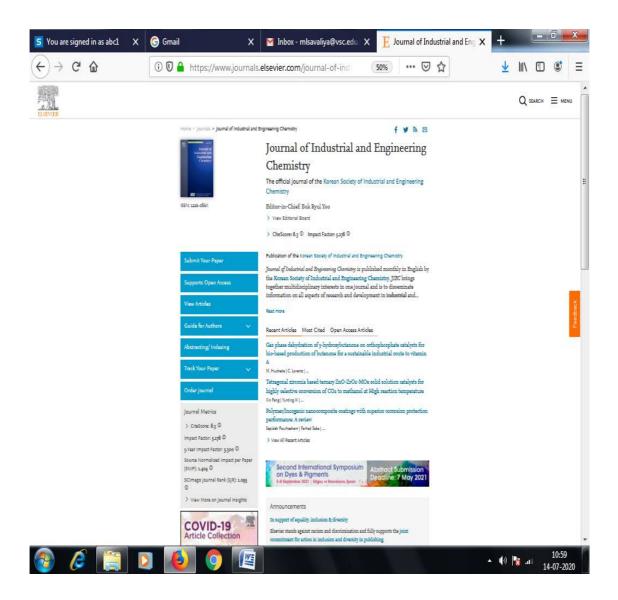
Annexure-II

Research Publication Details

Sr. No	Name of faculty	Title of the paper	Year
1.		Eco-friendly process for the preparation	2018-19
	Dr. Mehul L.	of biodiesel from WFO over reusable	
	Savaliya	MTSA-Si catalyst: A promising approach	
		for the utilization of side product,	
		Journal of Industrial and Engineering	
		Chemistry, 64, 352-366 DOI:	
		https://doi.org/10.1016/j.jiec.2018.03.036.	
2.	Mr. Anand V.	Dynamic Behaviors of Water Droplet	2018-19
	Khistariya	Impacting Antiwetting Plant Leaves.	
		Research Journal of Chemical Sciences,	
		Volume 9(2), 2019, pp 16-23.	
3.	Dr. Pankaj M. Akbari	"Synthesis and Biological Screening of	2018-19
		N-(4-(6-	
		Amino-5-cyano-4-aryl-pyridin-2-	
		yl)phenyl)	
		cyclopropane Carboxamide''	
4.	Dr. Pankaj M. Akbari	"Synthesis and Biological Evaluation of	2018-19
		N-(4-(5-	
		Aryl-4, 5-Dihydro-1H-Pyrazol-3-	
		yl)Phenyl)	
		Cyclopropane Carboxamide''	

Sr. No	Name of faculty	Title of the paper	Year
1	Er. Ravi S. Tank	Proceeding of two	2019-20
		days national	
		conference on	
		PANCHATATVA in	
		civil engineering –	
		Integrating five	
		element s of nature	
		for sustainable	
		development	
		sponsored by	
		Savitribai Phule Pune	
		University, Pune.	
		Entitled "Energy	
		from industrial waste	
		as a substitute for	
		fuel-coal &	
		utilitzation of	
		pollutant: CO2 for	
		algae formation"	
2	Dr. Mehul L. Savaliya	Non-traditional	2019-20
		insights into the	
		cleaner production of	
		biodiesel from lower	

		cost feedstock using	
		novel reusable	
		mesostructured	
		catalyst, Journal of	
		Cleaner Production.	
		(Communicated,	
		JCLEPRO-S-20-	
		06446).	
		(Communicated)	
3	Dr. Govind V Vagadiya	Synthesis and	2019-20
5	Di. Govina v vagadiya	Antimicrobial	2017-20
		Activity of $2 - \{[(4' - 4)^2 + 4)^2\}$	
		Arylidine-5'oxo-2'	
		phenyl)	
		Imidazolyl]-1'-Yl}-	
		3-Keto-1,5-	
		Dimethyl-2-Phenyl	
		Pyrazole	
		Journal of Applicable	
		Chemistry	
		2019, 8 (1): 107-111	
		(International Peer	
		Reviewed Journal)	
		ISSN: 2278-1862	
4	Dr. Govind V Vagadiya	Synthesis and	2019-20
		Antimicrobial	
		Activity of 2-{[(4'-	
		Arylidine-5'-Oxo-2'-	
		Phenyl)	
		Imidazolyl]-1'-Yl}-3-	
		(4-Hydroxyphenyl)	
		Propanoic Acids	
		-	
		Journal of Applicable	
		Chemistry	
		2019, 8 (2): 680-684	
		(International Peer	
		Reviewed Journal)	
		ISSN: 2278-1862	
5	Dr. Pankaj M. Akbari	Synthesis,	2019-20
		Characterization and	
		Biological	
		Evaluation of Ethyl-	
		4'-(cyclopropane	
		carboxamido-N-yl)-	
		5-ary-3-oxo-3,4,5,6-	
		tetrahydro-biphenyl-	
		4-carboxylate	
		4-carboxyrate	



Department of Mathematics

pers

Sr. No	Name of faculty	Title of the paper	Year
1.	Dr.Parag Ajani	On Restrained Domination Number	2018-19
		of Graphs" in International Journal of	
		Mathematics and Soft Computing,	
		Vol.8, No.1 (2018), 17 – 23 with ISSN:	
		2319-5215.	
2.	Dr.Parag Ajani	Parag Ajani :Published paper entitled	
		"On Restrained Domination Number	
		of Some Wheel Related Graphs" in	2018-19
		Malaya Journal of Matetatik, Vol.7,	
		No.1 (2019), 104 – 107 with ISSN:	
		2321-5666	
3	Dr.Parag Ajani	Parag Ajani :Published paper entitled	2019-20
		"On Restrained Edge Dominating	
		Set of Graphs" in Malaya Journal of	
		Matetatik, Vol.8, No.1 (2020), 28-31	
		with ISSN: 2321-5666.	

Annexure-III

Training Received by Faculty

- Online FDP series Phase-I, II and III on "Rubrics as an assessment tool"
- FDP/Training of Microsoft Teams for Online Teaching
- Teachers Enrichment Workshop (**TEW**) on *Galois Theory and Complex Analysis* organized by National Centre for Mathematics and TIFR held at St. Berchman's College (Autonomous), Changanacherry, Kerala
- Smart Learning DBT-STAR scheme college, Bengaluru
- Faculty Awareness Program Mechanical Engineering Department, JSPM's Jayawantrao Sawant College of Engineering Hadapsar Pune -028
- Training on LaTex, Sheth P.T. Mahila College of Arts & Home science, Surat (gujarat)
- Training on Python 3.4.3 , Anand International College of Engineering
- The winter training programme was conducted by Shree M & N Virani Science College (Autonomous), Rajkot from 27th November, 2019 to 31st November, 2019 for preparation of different remedial botanical products by F. Y. B. Sc. Students (45).

Seminar/Workshop/FDP Details

Seminar/conference attended

DEPARTMENT OF MATHEMATICS

Sr. No.	TOPIC OF THE SEMINAR/ WORKSHOP/ TRAINING/FDP	CLASS	Number of Participants	DATE
1.	Lecture on Higher Mathematical Dimension and it's impact and interpretation in real life	F.Y. & T.Y. B.Sc.	200	06/01/2017
2.	Lecture on Introduction to GeoGebra	F.Y. B.Sc.	74	07/01/2017
3.	Lecture on Introduction to SAGE	T.Y. B.Sc.	61	12/01/2017
4.	Workshop on Goal setting and career planning	F.Y. M.Sc. & T.Y. B.Sc.	57	14/06/2017 to 21/06/2017
5.	Lecture on Review Article writing in Mathematics	S.Y. & T.Y. B.Sc.	50	23/06/2017
6.	Seminar on Introduction to GeoGebra	S.Y. B.Sc.	71	24/06/2017
7.	Workshop on Problem solving strategies in mathematics competitions	S.Y. & T.Y. B.Sc.	108	01/09/2017
8.	Guest lecture on Applications of mathematics in computer science	S.Y. & T.Y. B.Sc.	122	13/09/2017
9.	Seminar on Introduction to SAGE	T.Y B.Sc.	58	15/12/2017
10.	Seminar on Introduction to GeoGebra	F.Y B.Sc.	82	16/12/2017
11.	Guest Lecture on Problem Solving Strategies	T.Y B.Sc. & M.Sc.	81	22/12/2017
12.	Guest Lecture on Life and Work of Srinivasa Ramanujan	T.Y B.Sc. & M.Sc.	82	22/12/2017
13.	Poster Presentation Competition	UG & PG Students	74	24/03/2018
14.	Review Article Writing in Mathematics	T.Y. B.Sc.	88	05/07/2018
15.	Awareness Seminar on Stand-alone Solar Power System	F.Y. & T.Y. B.Sc.	73	19/09/2018
16.	State Level Workshop on Introduction to GeoGebra	Faculties from Various Colleges	35	14/10/2018
17.	Regional Level Workshop on Introduction to GeoGebra	F.Y. B.Sc.(VSC + AU)	102	19/12/2018 to 20/12/2018
18.	Rangoli Competition on Mathematical Concepts (Celebration of National Mathematics Day-2018)	B.Sc. (VSC+AU+GY)	49	22/10/2018
19.	Workshop on Study of Mathematics as a Career	T.Y. B.Sc.	66	02/03/2019

20.	Seminar on Career Counseling & Goal Setting	T.Y. B.Sc.	37	28/2/2019
21.	Seminar on Introduction to SCILAB	S.Y. B.Sc.	49	3/7/2019
22.	Seminar on Review Article Writing	T.Y. B.Sc.	64	18/7/2019
	In Mathematics	(VSC+GY)		16/7/2019
23.	Mathematics Quiz Competition	F.Y.+S.Y.+T.Y	33	
		.B.Sc.(5/9/2019
		VSC+AU+GY)		
24.	Celebration of National Mathematics Day-2019	VSC+AU	259	21/12/2019

List of FDPs Organized by DEPARTMENT OF MATHEMATICS

Sr. No.	TOPIC OF THE SEMINAR/ WORKSHOP/ TRAINING/FDP	CLASS	Number of Participa nts	DATE
1	State Level Workshop/FDP on	Faculties from	35	14/10/20
	Introduction to GeoGebra	Various		14/10/20
		Colleges		10
2	FDP/Training of Microsoft Teams for	College	29	27/6/202
	Online Teaching	Faculties		0

DEPARTMENT OF INDUSTRIAL CHEMISTRY

Sr. No	Name of faculty	Title of seminar	Date
1.	Dr. Mehul L. Savaliya	International	13 th & 14 th August,
		Lecture Workshop	2019
		organized on 13 th &	
		14 th August, 2019, in	
		joint collaboration of	
		Atmiya University,	
		Rajkot and	
		University of	
		Miyazaki, Japan.	
2.	Dr. Mehul L. Savaliya	e-FACULTY	11th May 2020 to
		DEVELOPMENT	16th May 2020
		PROGRAMME (e-	
		FDP) On	
		"Redefining the role	
		of Educator in	
		Covid-19 outbreak	
		era "Jointly	
		organized by Anand	
		pharmacy college &	
		GTU Ahmedabad.	

2			00.04/05/2020
3.	Dr. Mehul L. Savaliya	Two days state level	23-24/05/2020.
		webinar on HPLC	
		Instrumentation	
		Technique & Mass	
		Spectrometry in the	
		subject of chemistry,	
		organized by	
		Department of	
		Chemistry, C.B Patel	
		Computer College	
		and J.N.M Patel	
		Science College,	
		Surat.	
4.	Dr. Mehul L. Savaliya	STEM, STEAM, and	14/05/2020
		STREAM What Do	
		They Have in	
		Common? Science,	
		Technology,	
		Engineering and	
		Mathematics.,	
		edweb.net- a	
		professional learning	
		network.	
5.	Dr. Mehul L. Savaliya	An International Web	15-16, May, 2020.
		Conference on	
		Science, Engineering	
		& Technology	
		(IWCSET-2020),	
		organized by Society	
		for Technologically	
		Advanced Material	
6	Mr. Arond V. Khistorius	of India (STAMI). 26 th International	18 th to 21 st February,
6.	Mr. Anand V. Khistariya		•
		Conference & Maating of Magnetia	2020
		Meeting of Magnetic	
		Resonance Society on NMR from	
		Molecules to Human	
		Behavior and Beyond	
		•	
		organized by Department of	
		Chemistry,	
		Saurashtra	
		University, Rajkot,	
		•	
		India	

			List of	f Book Procured (A	nnexure	•V)			
ISBN			Author	Title	Edition	Publisher	Year of Pub.	Budget Year	Cost
	570	AGG/Cor	Aggarwal, S.K.	Core science biology: for class 9 with CD		Goyal brothers prakashan	2011	2018- 2019	148.00
978-81- 8989-349- 1	570	SET/Bio	Seth, C.K.; Goel, Mamta; Chauhan, Arti	Biology: formative & summative assessment approach in science	1st rev. ed.	Prachi [India] Pvt.Ltd.	2007 (2012-13)	2018- 2019	200.00
978-93- 525-3527- 9	580	PAN/Bot	Pandey, B.P.	Botany for degree students: biodiversity B.Sc.Sem I	1st ed.	S.Chand and Company Ltd	2017 (2018)	2018- 2019	365.00
978-93- 525-3528- 6	580	PAN/Bot	Pandey, B.P.	Botany for degree students: Plant ecology and taxonomy B.Sc.Sem. II	1st ed.	S.Chand and Company Ltd	2018	2018- 2019	300.00
978-93- 525-3529- 3	580	PAN/Bot	Pandey, B.P.	Botany for degree students: Plant anatomy and Embryology B.Sc.Sem III	1st ed.	S.Chand and Company Ltd	2018	2018- 2019	300.00
978-93- 525-3411- 1	590	AGA/Zoo	Agarwal, V.K.	Zoology for degree students: Ecology B.Sc.(Hons.) Sem I	1st ed.	S.Chand and Company Ltd	2017 (2018)	2018- 2019	425.00
978-93- 525-3438- 8	590	AGA/Zoo	Agarwal, V.K.	Zoology for degree students: Cell biology B.Sc.(Hons.) Sem II	1st ed.	S.Chand and Company Ltd	2018	2018- 2019	495.00
978-81- 219-0367	560	JOR-VER	Jordan, E. L.; Verma, P. S.	Invertebrate zoology	1st.rev.ed.	S.Chand & Company Ltd.	1963 (2018)	2018- 2019	825.00
978-93- 5134-016- 4	363.73	ARO/Ref	Arora, C.A.	Refrigeration and air conditioning	3rd ed.	McGraw Hill Education(India) Private Limited	2016	2018- 2019	715.00
978-93- 5134-016- 4	363.73	ARO/Ref	Arora, C.A.	Refrigeration and air conditioning	3rd ed.	McGraw Hill Education(India) Private Limited	2016	2018- 2019	715.00
978-93- 5134-016- 4	363.73	ARO/Ref	Arora, C.A.	Refrigeration and air conditioning	3rd ed.	McGraw Hill Education(India) Private Limited	2016	2018- 2019	715.00
978-93- 5134-016- 4	363.73	ARO/Ref	Arora, C.A.	Refrigeration and air conditioning	3rd ed.	McGraw Hill Education(India) Private Limited	2016	2018- 2019	715.00
978-93- 5134-016- 4	363.73	ARO/Ref	Arora, C.A.	Refrigeration and air conditioning	3rd ed.	McGraw Hill Education(India) Private Limited	2016	2018- 2019	715.00
978-93- 866-0218- 3	334.714	PAL- GHO	Pal, Indrajit; Ghosh,Tuhin	Natural hazards management in aisa	1st ed.	Sage publications india pvt ltd	2018	2018- 2019	1250.00
978-93- 866-0218- 3	334.714	PAL- GHO	Pal, Indrajit; Ghosh,Tuhin	Natural hazards management in aisa	1st ed.	Sage publications india pvt ltd	2018	2018- 2019	1250.00
978-93- 866-0218- 3	334.714	PAL- GHO	Pal, Indrajit; Ghosh,Tuhin	Natural hazards management in aisa	1st ed.	Sage publications india pvt ltd	2018	2018- 2019	1250.00
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978-93- 866-0218- 3	334.714	PAL- GHO	Pal, Indrajit; Ghosh,Tuhin	Natural hazards management in aisa	1st ed.	Sage publications india pvt ltd	2018	2018- 2019	1250.00
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978-81- 7371-656- 0	658.151	SHA-KRI	Shaw, Rajib; Krishnamurthy, R.R.	Disaster management: global challenges and local solutions	1st ed.	Universities Press (India) Private Limited	2009 (2016)	2018- 2019	950.00
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978-0-521- 35732-6	512.943 4	COP/Met	Copson, E.T.	Metric spaces	1st rep. ed.	Cambridge University Press	1968 (2008)	2018- 2019	3586.26
978-0-521- 35732-6	512.943 4	COP/Met	Copson, E.T.	Metric spaces	1st rep. ed.	Cambridge University Press	1968 (2008)	2018- 2019	3586.26
978-0-486- 63829-4	511.322	STO/Set	Stoll, Robert R.	Set theory and logic		Dover publications,Inc.	1979 (2017)	2018- 2019	1654.69
978-0-486- 63829-4	511.322	STO/Set	Stoll, Robert R.	Set theory and logic		Dover publications,Inc.	1979 (2017)	2018- 2019	1654.69
978-0-486- 63829-4	511.322	STO/Set	Stoll, Robert R.	Set theory and logic		Dover publications,Inc.	1979 (2017)	2018- 2019	1654.69
978-0-486- 63829-4	511.322	STO/Set	Stoll, Robert R.	Set theory and logic		Dover publications,Inc.	1979 (2017)	2018- 2019	1675.35
978-0-486- 63829-4	511.322	STO/Set	Stoll, Robert R.	Set theory and logic		Dover publications,Inc.	1979 (2017)	2018- 2019	1675.35
978-81- 7319-269- 2	512	GAL/Con	Gallian, Joseph A.	Contemporary abstract Algebra	4th ed.	Narosa Publishing House	1999	2018- 2019	450.00
978-81- 7319-269- 2	512	GAL/Con	Gallian, Joseph A.	Contemporary abstract Algebra	4th ed.	Narosa Publishing House	1999	2018- 2019	450.00
	512	GAL/Con	Gallian, Joseph A.	Contemporary abstract Algebra	4th ed.	Narosa Publishing House	1999	2018- 2019	450.00
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978-81- 7319-269- 2	512	GAL/Con	Gallian, Joseph A.	Contemporary abstract Algebra	4th ed.	Narosa Publishing House	1999	2018- 2019	450.00
978-81- 219-0281- 6	001.424	GUP-HIR	Gupta, Prem Kumar; Hira, D. S.	Operations Research	7th.ed.	S.Chand & Company Ltd.	1979 (2018)	2018- 2019	650.00
	515	NAR- MIT	Narayan, Shanti; Mittal, P.K.	A Course of Mathematical Analysis	1st.rev.ed.	S.Chand & Company Ltd.	1945 (2018)	2018- 2019	300.00
978-81- 219-0952- 5	512	NAR- MIT	Narayan, Shanti; Mittal, P.K.	Vector Algebra	19th.rev.ed	S.Chand & Company Ltd.	1954 (2016)	2018- 2019	175.00
978-81- 219-0472-	515	NAR- MIT	Narayan, Shanti; Mittal, P.K.	A Course of Mathematical Analysis	1st.rev.ed.	S.Chand & Company Ltd.	1945 (2018)	2018- 2019	300.00

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978-93- 528-3216- 3	153.43	AGG/Mo d	Aggarwal, R.S.	A Modern approach to verbal & non-verbal reasoning	1st ed.	S Chand And Company Limited	1994 (2018)	2018- 2019	825.00
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978-93- 528-3216- 3	153.43	AGG/Mo d	Aggarwal, R.S.	A Modern approach to verbal & non-verbal reasoning	1st ed.	S Chand And Company Limited	1994 (2018)	2018- 2019	825.00
	530	SAL/Cor	Sally, V.K.	Core science physics: for class 9 with CD		Goyal brothers prakashan	2011	2018- 2019	148.00
978-81- 8989-347- 7	530	SET/Phy	Seth, C.K.; Haridas, G.; Bhawna	Physics: formative & summative assessment approach in science	1st rev. ed.	Prachi [India] Pvt.Ltd.	2007 (2011-12)	2018- 2019	170.00
978-93- 5299-030- 6	621.381 5	TAY/Ele	Tayal, D.C.	Electricity and electronics	8th.rev.ed	Himalaya Publishing House Pvt. Ltd.	1975 (2019)	2018- 2019	875.00
978-93- 5299-386- 4	621.381 5	KAK- BHA	Kakani, S.L.; Bhandari, K.C.	Objective electronics	1st ed.	Himalaya Publishing House Pvt. Ltd.	2019	2018- 2019	475.00
978-93- 5299-385- 7	621.381 5	KAK- BHA	Kakani, S.L.; Bhandari, K.C.	Gate Electronics and communication engineering	2nd.rev.ed	Himalaya Publishing House Pvt. Ltd.	2016 (2019)	2018- 2019	998.00
978- 07069- 9817-7	530	SUB-LAL	Subrahmanyam, N; Lal, Brij	A text book of sound	2nd.rev.ed.	Vikas Publishing House Pvt.Ltd.	1995 (2016)	2018- 2019	340.00

Annexure-VI

Invited Lectures

- Mr. Habeeb Rawther, Human Resource Manager, Mahindra Gears & Transmission, Shapar Veraval Rajkot delivered special lecture to TY B.Sc. Students of Department of Industrial Chemistry.
- Shri H. P. Patel, Regional Officer, GPCB, Rajkot delivered a special lecture on "Keep Cool and Carry on: The Montreal protocol" on 17-09-2018 to all the students of department of industrial chemistry along with invited students of various other institutes of Saurashtra region.
- Shri Somdev Tyagiji deleivered invited lecture in a 3 days workshop on "Happiness & Wellness" for the staff members & students of Shree M. & N. Virani Science College.
- Dr. Mrunal A. Ambasana, Department of Chemistry, Bhakta Kavi Narsinh Mehta University, Junagadh delivered a invited lecture on "Method Validation in High Performance Liquid Chromatography (HPLC)", to all the students of department of industrial chemistry.
- Dr. G.D. Acharya (Principal, AITS) & Mr. Divyang Tiwari (TPO, AITS) jointly delivered lecture on "Job Interview skills" on date 26th July, 2019.
- Punit vadher :Valsad Ganit Mandal Sponsored Two day workshop of "Introduction to GeoGebra"
- Jignasu Chauhan: Valsad Ganit Mandal Sponsored Two day workshop of "Introduction to GeoGebra"
- Jignasu Chauhan:December-2018 . Workshop on GeoGebra,University School of Sciences, Gujarat University, Ahmedabad.
- Jignasu Chauhan:December-2018.5th state level workshop on Problem Solving & Enrichment in Mathematics at St. Xavier's College Ahmedabad.

Appendix-I

PHOTO GALLERY













 A One Day State Level Hands-on Workshop on

 "Advanced Analytical Techniques for Materials Characterization (A²TMC-2018)"

 Date: 23.12.2018
 Venue: CIF Lab of MNVSC

 Time: 09:00 am- 04:30 pm









Emerging Trends in Chemical Science & Tech event-22092018

































A) Student activities

i. Winter Training: Preparation of different remedial botanical products



ii. Industrial Visits: Study tour to the Meteorological Department



iii. List of Projects Undertaken by Students

Herbal products: Preparation of Herbal Moisturizer, Herbal Stir Up, Herb Care Spray and Soothing



Sectioning and anatomy of anomalous secondary growth and cell division



Identification of marine animals of the coast of Narara Island (Gujarat) based using morphological characters



iv. Excursions:

Field Trip to Race course garden



Field trip to Pradhyuman Park



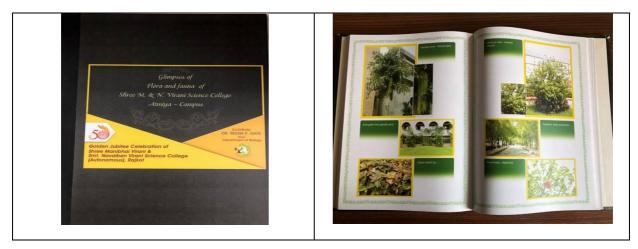
Poster Presentation on Economic importance of Plants by students



Invited lectures



Published Book



Appendix-II

Minor Research Project

Department of Industrial Chemistry

Titles of the projects are as below:

- Study of antimicrobial activity of oil extracted from pongamia pinnata seeds incorporated in hand sanitizer
- Antimicrobial activities of imidazoline derivative
- Antimicrobial activities of chemical derivatives against different microorganism
- Biodegradable polymer preparation & characterisation
- Preparation of highly active solid catalyst from lemon pills and its application to bioenergy production
- Synthesis of novel heterocyclic molecules.
- Synthesis and biological screening of 1, 4 di-hydroxy anthraquinone derivatives as a promising anticancer agents.
- Synthesis of novel 1, 2, 4 triazol and pyridine triazole as a potential anticancer, antibacterial, antifungal and anticorrosive agents
- Synthesis of cyanuric chloride derivatives as antimicrobial agents.
- One pot green MCRs for synthesis of coumarin derivatives as anticancer agents.
- Synthesis & Characterization of Indole and Pyrazole derivatives for Agriculture and Medicinal Application.
- Preparation of novel chalcones.

Department of Biology

- Herbal products: Preparation of Herbal Moisturizer, Herbal Stir Up, Herb Care Spray and Soothing.
- Sectioning and anatomy of anomalous secondary growth of dicot roots and cell division.
- Study of pollen grains of Family Malvaceae.
- Identification of marine animals of the coast of Narara Island (Gujarat) based using morphological characters (55 students).

Department of Physics

- Testing of Analog circuits
- Testing of Digital circuits