

Progress Report by Colleges Supported Under DBT Star College Scheme

(2018-19) **Submitted by**



Chikitsak Samuha's Sir Sitaram and Lady Shantabai Patkar College of Arts & Science and V. P. Varde College of Commerce and Economics Goregaon (west) Mumbai 400 062

Department of Biotechnology

<u>Proforma for submission of progress reports by</u> <u>colleges supported under Star College Scheme</u>

- 1. Name of the College :Chikitsak Samuha's Sir Sitaramand Lady Shantabai Patkar College of Arts & Science, and V. P. Varde College of Commerce and economics Goregaon (west) Mumbai 62
- 2. Name of Departments supported :Botany ,Zoology, Physics, Chemistry.

Name of Coordinator, designation, address, phone nos.

Dr. T. J. Palathingal, Associate professor, 9867673240

S.N.	Name of Departments supported	Name of Coordinator	designation,	Address, phone nos.
1.	Botany	Dr Sushmita Negi	Assistant Professor	703/92, Poonam Complex, Shanti Park, Mira Road, Thane Phone no- 9867417071
2.	Zoology	Dr. G. V. Zodape	Associate Professor and Head	Phone no-9819023717, Nagri nivara Goregaon east
3.	Physics	Mrs.sangeeta anilkumar nirmal	Assistant Professor	Flat No. 1,Satguru Apt., Badlapur (W) – 421503, 9967083234
4.	Chemistry	Dr. Ramesh S. Yamgar	Associate Professor	603, Shree Narayan Niwas C.H.S. Ltd.,L. T. Nagar, Road No2, of M. G. Road, Goregaon (West), Mumbai- 400104. 9869619511

3. No. of regular faculty with Ph.D. in each participating department:

S.N.	Name of participating Departments	No & Name of regular faculty	Ph.D. Qualification
1.	Botany	Following four regular faculty- i. Dr Trisa Joseph ii. Mr Sachin Bhagat iii. Dr Sushmita Negi iv. Dr Anil Bhalerao	Ph.D. Pursuing Ph.D. Ph.D.
2.	Zoology	Following six regular faculty- i. Dr. G.V. Zodape ii. Mrs. Nilima Prabhu iii. Mrs. Madhuri Tayade iv. Dr. Shailesh Tawade	Ph.D. Pursuing Pursuing Ph.D.
3.	Physics	Dr. G.S. Shetty	Ph.D.

		Dr. N.G. Durge	Ph.D.
		Dr. S.S. Pimpale	Ph.D.
		Mrs. S.A. Nirmal	Pursuing
		Dr. V.H. Goswami	Ph.D.
4.	Chemistry	Dr. (Mrs.) Arti S. Sawant	Ph.D.
		Dr. (Mrs.) Nilesha G. Nadkarni	Ph.D.
		Dr. Ramesh S. Yamgar	Ph.D.
		Dr. Maj. Rahul R. Wagh	Ph.D.
		Dr. Sharad S. Sankhe	Ph.D.
		Mr. Prashant kamble	Pursuing
		Mr. Sopan Adahav	Pursuing
		Dr. Bhushan S. Mulgaonkar	Ph.D.

4. List of courses (B.Sc./M.Sc./PG Diploma, certificate etc) run by different participating departments:

S.N.	Name of participating Departments	names of courses conducted
1.	Botany	i. B.Sc. ii. M.Sc. iii. Ph.D.
2.	Zoology	i. B.Sc. ii. M.Sc. (By Research) iii. Ph.D.
3.	Physics	i. B.Sc. ii. M.Sc. iii. Ph.D.
4.	Chemistry	i. B.Sc. ii. M.Sc. iii Ph.D.

5. Cut off percentage for admission in different courses in participating departments, positions in university, Percentage of result in 2018-19 academic session :

S.N.	Name of participating	Cut off percentage for admission in	Cut off percentage for admission in M.Sc.	Percentage at final year
	Departments	B.Sc. courses	courses	
1.	Botany	F.Y.B.Sc.(40)	It is on merit allotted from	B.Sc.88.88%
		S.Y.B.Sc.(40)	the University which	M.Sc.100%
		T.Y.B.Sc.(40)	varies from year to year	
2.	Zoology	F.Y.B.Sc. (40)	It is on merit allotted from	B.Sc. 97%
		S.Y.B.Sc.(40)	the University which	
		T.Y.B.Sc.(40)	varies from year to	
			yearfor M.Sc. by	
			Research	
3.	Physics	F.Y.B.Sc. (40)	It is on merit allotted from	B.Sc. 47%
		S.Y.B.Sc.(40)	the University which	M.Sc. 63%
		T.Y.B.Sc.(40)	varies from year to year	
4.	Chemistry	F.Y.B.Sc. (40)	It is on merit allotted from	B.Sc. 75%
		S.Y.B.Sc.(40)	the University which	M.Sc. 70%

T.Y.B.Sc.(40) varies from year to year
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6. List of projects undertaken by students, industrial visits by students, summer training in last one year :

i. List of projects undertaken

Name of	List / Name of projects undertaken	Class	No of
participating Departments			Beneficiary
Botany	i. A Preliminary Survey of Various Plant Species Across College Campus For foliage Dust Load	S.Y B.Sc.	08
Downy	ii. Evaluation of Cd And Pb Content In The Leafy Vegetables From Mumbai And Virar Markets	S.Y B.Sc.	05
	iii. Effect Of Auto Exhaust On The Pollen Viability Of <i>Catharanthus Roseus</i> (L.)G. Don Growingalong S.V. Road in The 'R' And 'P' South Wards Of Mumbai	S.Y B.Sc.	03
	iv. Studies on Drinking Water Quality At Railway Stations From Borivali To Virar, Mumbai	F.Y B.Sc.	06
	v. Survey Of Different Parts of P South Ward Of Mumbai (Goregaon) For Level Of Noise Pollution	S.Y B.Sc.	04
	vi. Study Of Soil Samples Collected From Different Geographical Location	S.Y B.Sc.	06
	vii. Post Harvest Management Of Leafy Vegetables Collected From Mumbai Suburban Market	S.Y B.Sc.	06
	viii. Effect of Vehicular Pollution of	S.Y B.Sc.	03
	Chlorophyll Pigment and Biomass in Different Plant Species		
Zaalaav	i. Insect Biodiversity at Sanjay Gandhi national park	S.Y.B.Sc	06
Zoology	ii. Estimation of Vitamin C content in packed fruit juices	S.Y.B.Sc	07
	iii. Measurement of sound pollution in dB in different festivals at suburban of Mumbai city	S.Y.B.Sc	05
	iv. Determination of drinking water quality in water collected from schools and colleges of extended suburb (Virar and Nalasopara)	S.Y.B.Sc	05
	v. Determination of drinking water quality in water		
	collected from house tap water of suburb (Jogeshwari to Borivali)	S.Y.B.Sc	05

	vi. Analysis of BMI Index of girls in Patkar college, Goregaon	S.Y.B.Sc	03
	vii. Vermicomposting	S.Y.B.Sc	05
	vii. Determination of quality of hair w. r. t. the tensile strength by using weight method in Human	S.Y.B.Sc	07
	beings(female)	S.Y.B.Sc	05
	viii. Food Adulteration		
	ix. Ecofriendly labs-A initiative to conserve the environment	S.Y.B.Sc	03
	x. Water Pollution Due to Idol Immersion	S.Y.B.Sc	03
	xi. Vitamin Content in Fruit		
		S.Y.B.Sc	06
Di :	Recycling of plastic for environment and sustainable development	S YB.Sc.	03
Physics	ii. "Necessity of sustainable development for ideal society"	S Y B.Sc.	03
	iii. "Conservation of natural resources: energy & water in india	SY B.Sc.	03
	iv. Solar cell: nanotechnology applications & development.	F Y B.Sc.	02
	v. dose of nanotechnology in medicine	FY B.Sc.	02
	vi. Nano-verse: the universe at a nano scale	F Y B.Sc.	02
	vii. Corrosion study of crcn thin film in energy power production application	F Y B.Sc.	03
	viii. Study of ticn coating and its industrial application	F Y B.Sc.	03
	ix. Global warming: effects, causes & prevention	S Y BSc.	02

ii. Industrial visits by students

Name of	Date, & Name of Place and Institutes visited	Class	No of
participating			Beneficiary
Departments			

	i. 13.09.18 - Nasik	S.Y.B.Sc.	76
Botany	-Grape Vineyard, fermentation Plant - Dada Saheb Phalke Udyan		
	ii. 25.09.18 - Talegaon, Pune	F.Y.B.Sc.	93
	 National Institute of Post Harvest Technology Tissue Culture Lab, - A-One Biotech Nursery 	1.1.5.50.	
	iii. 11.12.18 to 17.12.18 - Mangalore, Coorg & Mysore	T.Y.B.Sc.	20
	- Pilikula Nisargdham, Ecological Park, Nisagdham		
	 Coffee & Spice plantation farm CFTRI Central Food Technological Res.Institute 	S.Y.B.Sc. &	62
	iv. 11.02.19 to 13.02.19 - Mahabaleshwer	F.Y.B.Sc.	-
	Wheat Research InstituteMapro Botanical Garden, Apiary Training CentreStrawberry Farm		
	v. 25.09.18 - Talegaon, Pune	F.Y.B.Sc.	52
	- Meher YuSuf Ali Centre - Biodiversity Park		
	vi. Andheri, Mumbai i.Sewage Treatment Plant-		
Zoology	i. 27.09.18- Shirgaon and Satpati in district Palghar- Cold storage factory- Boat building yard	T.Y.B.Sc	42
	ii. 13.10.18- Thane	F.Y.B.Sc	70
	- Field trip to Keshav Srushti		
	iii. 16.12.18 to 22.12.18- Rajesthan	F.Y.B.Sc ,S.Y.B.Sc &	32
	- Ranthambore Fort	T.Y.B.Sc	
	iv. 18.02.19- Andheri, Charkop	T.Y.B.Sc	61
	- Sewage Treatment Plant		
		T.Y.B.Sc	31

	v. 25.02.19 to 02.03.19 – Madhya Pradesh		
	- Kanha National Park		
	. 14 1 .	EVDC	00
	i. <i>Mumbai</i> 13 .09.18	F.Y.B.Sc., T.Y.B.Sc	80
Physics	-NEHRU SCIENCE CENTER	1.1.0.50	
	ii. <i>Mumbai</i> 25.09.18		
	-NEHRU SCIENCE CENTER	S.Y.B.Sc	60
	iii. Khopoli		
		S.Y.B.Sc.,	60
Chemistry	i. Bombay Rayon Fashion Ltd.	T.Y.B.Sc S.Y.B.Sc.	69 66
Chemistry	Nipra Packaging Pvt. Ltd.	& 1.B.Sc.	00
	RHJ Metals Pvt. Ltd.	T.Y.B.Sc.	
	U.T of D. & N. H.		
	14-15 th December 2019Silvassa		
	ii. Coca-cola Industry	F.Y.B.Sc.,	95
	Wada	S.Y.B.Sc.	
	16 th February 2019	& T.Y.B.Sc	

iii. Summer training

Training received by students from participating departments:

S.N.	Name of Departments	Name of the institute where training received	Name and details of training course
1.	Botany	Central Institute Of Fisheries Science,	Spirulina culture at CIFE, Mumbai
		Versova, Mumbai 2. National Institute of Post Harvest Technology, Talegaon	2. Greenhouse Training, at NIPHT, Pune
		Dabhade, Pune	
2.	Zoology	Central Research Laboratory, Ruparel college, Mumbai	1. Seven days ATC workshop
3.	Physics	Kalsa college Surface Modification PVT. LTD, Vasai.	 Study of Microprocessor, Thin film coating Technology,

7. Training received by faculty from participating departments:

S.N. Name of Name of Faculty Name and details of training course
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	Departments	who received training	
1.	Botany	Mr Sachin Bhagat	Training program on Green House Management Five days course organized by National Institute of Post Harvest Management, Talegaon, Pune, 25-29 March 2019
2.	Zoology	Dr. Shailesh Tawade	Seven days ATC workshop by Central Research Laboratory, Ruparel college, Mumbai. 04-10 June 2018
3.	Physics	Dr. V. H. Goswami	Two days training program on Thin film coating Technology inSurface Modification PVT. LTD on 9 and 10 Feb. 2019

- 8. List of exhibitions/seminars/training courses conducted by the college:
- (1) Conference Organized

"Challenges in Environmental Management" Interdisciplinary Conference was Jointly organized by Departments of Botany, Chemistry, Physics & Zoology Invited speakers

- 1. Dr. Rajendra Singh: 'Jalpurush' Stockholm water prize 2015 and Magsaysay award 2001
- 2. Samuel Labudde: Goldman Environment Prize USA, 1991,
- 3. Dr. A.D Sawant: Former vice Chancellor, Rajasthan University.

Participation

- •250 participants registered for the conference
- 150 UG students from various Colleges participated
- •81 **UG** students from Patkar College participated

Presentation

- 65 Oral Presentations, 16UG & 49 research Scholar and academician
- •48 Poster Presentations, 23UG & 25 research Scholar and academician

UG Presentations

- •07 Oral Presentations from Patkar College UG Category
- •12 Poster Presentations from Patkar colleges
- •09 Oral Presentations from other College
- •11 Poster Presentations from other colleges

(2) Workshops Organized

Sr. No.	Department	Workshop with date	Resource Person	Students Class &Beneficiaries
1.	Botany	Electrophoresis, 4/12/2018	Ms. Yogita Berde Director Technocraft	S. Y. B.Sc.: 26
2.		Laboratory Disaster Management, 05/03/2019	Mr. Sachin Khedekar, Regional Officer, Mah. Disaster, Management cell, Mumbai	Laboratory staff and UG students: 45
3.		Colorimetry, 09/03/2019	Dr. Sangita Godbole, HOD Botany ,Associate Professor Jai Hind College	First year B.Sc.; 20
1.	Chemistry	Handling Hazardous Chemicals and Execution during	Mr. Sachin Khedekar, Regional Officer, Mah. Disaster, Management cell,	Laboratory staff and UG students: 45

		Disiater 05/03/2019	Mumbai	
1.	Physics	Wonders of physics & Fun with physics	Dr. B.D.Chakroade	UG student :150
2.		PCB Designing,6-7/08/2019	Mr. Yadnesh (Techcryptors)	UG student : 30
3.		Workshop cum Training Programme conducted on Robotics, 1-/03/2019	Mr. Yadnesh (Techcryptors)	UG student : 31
4.		PC Simulation Graph Plotting and Slop	Mr. Tirup Parmar, Assistant Professor, NM College	T.Y. B.Sc. 28
1.	Zoology	Workshop and hands on training on bioinformatics 11-13 March 2019	Dr. Kiran Pariya, Associate Professor, Dept. of Zoology, Bandodkar College, Thane	T.Y. B.Sc. 38
2.		Hematological technique, 25-29 March	Dr. Roshan D'Souza Associate Professor Sofia College, Mumbai	F.Y. &S.Y. B.Sc. 19

9. Name, designation, host instituteof guest faculty invited:

S.N.	Name of			
	Departm ents	Name & designation of guest faculty invited	host institute	Topic of Guest Lecture
1.	Botany	i.Dr. Sunita Chahar Associate Professor, HoD Botany,	Ratnam College, Bhandup, Thane	Spices and Condiments New Horizons in the
		ii. Mr Sushil Shinde, Assistant Professor	ThakurCollege, Kandivali, Mumbai	field of Botany
		iii. Dr. Ambika Joshi Associate Professor, HoD Botany	Jai Hind College, Churchgate, Mumbai	Degraded Environment
2.	Zoology	i. Mr. Pratik Tambe Associate, Operation and Hospitality	Grassroutes journey	Amazing Animals
		ii. Miss. Kirti Kumari Dube SERB-National post doctoral fellow	Department of Food engineering and Technology,	Role of food technology in recent times: Its significance and scope for research
		iii. K.Guruvayurappan Ex-director iv. Prof. B.G. Kulkarni Former director	Institute of Chemical Technology LIVANOVA Institute of Science, Mumbai	E-mailing and basic corporate etiquette Ocean literacy & Marine Biotechnology
		v. Mr. Sachin Jivan Khedekar Regional officer	Maharashtra Disaster Management Cell	First Aid and Cardio- Pulmonary Resuscitation
3.	Physics	i. Mr. Tirup Parmar, Assistant Professor,	N.M. College	Introduction to C++ – Followed by practical session.
		ii. Dr. Umesh Mhatre, Director,	Surface Modification Pvt.Ltd.	PVD Coating
		iii. Mr. Kartikyan Subbu, Assistant Prof.,	Mithibai College	Nanotechnology and its applications,
		iv. Mr.Harish Rao- Retd. Associate Professor	Patkar college	Career Guidance in physics-
		v. Dr. R. R Deshmukh, HoD Physics Department,	ICT	Plasma: The 4th State Of Matter & It's Application In Material Science
		vi. Dr. Mayank vahia,		

		Dean,	NMIMS	India's space programme
		vii. Mr. Kaushik, Director,	Magnetic Brains	Astronomy and electronics as hobbies-10.01.19
		viii. Mr. Rajesh Mudaliyar– Assistant prof. ix. Mr. Mahesh Naik-	Bhavan's college	Simulation of Expt. in Physics 10.01.19
		Assist. Prof. x. Dr. Pradeep Sarawade,	SVKM's NMIMS Mukesh Patel School of Technology	Pure Science-11.01.19 Nanomaterials for
		Assist. Prof.,	Management & Engineering	energy & environmental applications-11.01.19
4.	Chemistr y	Dr. Sudhir Sawant Assistant Manager R & D	FDC	Intellectual Property Rights
		Mr. Aditya Pratap Singh	IIT Bombay	Preparation for Competitive Exam
		Mr. Kailash Chavan Counselor	NIIT	Carrier Guidance
		Dr. Purav Badani Assistant Professor	Department of Chemistry University of Mumbai	Introduction to Quantum Mechanics
		Mr. Sainath N. Bhavsar Research Student	University of Mumbai	Practical Aspects of Spectrophotometer
_		Mrs. Farhana Khalidwali Associate Professor	Department of Chemistry Rizvi College	Problem Solving in Organic Spectroscopy
		Dr. Rajesh Masurkar Associate Professor	Department of Chemistry Rizvi College	Orientation in Practical Chemistry

- 10. Date of Advisory committee meeting: The advisory committee meeting with the DBT Experts was not held However, a meeting with the external experts on our Advisory committeewas heldon 8/8/18
- 11. List of New Practical/demonstrations introduced in different departments in last one year :

S.N.	Name of Departments	Title / Name of Extra practical	Class	Number of beneficiary
1.	Botany	i. Vitamin C estimation from various commercially available juices and	First Year B.Sc.	70

		natural fruit juices		
		ii. Study of activity of enzyme Amylase	First Year B.Sc.	35
		iii. Estimation of Pectin from two different varieties of apples	Second Year B.Sc.	40
		iv. Encapsulation of axillary buds (Synthetic seed)	Second Year B.Sc.	45
		v. Study of fresh water algae from pond ecosystem and evaluation of the water status	Third Year B.Sc.	22
2.	Zoology	i. Extraction of Fruit juice by using Pectinase	First Year B.Sc.	75
		ii. Separation of lipids by TLC	First Year B.Sc.	50
		iii. Determination of Salinity by refractometer	Second Year B.Sc.	45
3.	Physics	i. Geiger Muller (GM) COUNTER	F.Y.BSc., S.Y.BSc., T.Y.BSc.	50
		ii. Four Probe Method	F.Y.BSc., S.Y.BSc., T.Y.BSc	35
		iii. Optical Fiber communication System	F.Y.BSc., S.Y.BSc., T.Y.BSc	35
4.	Chemistry	Calibration of Glasswares Analysis of Talcum Powder	F.Y. & SY T.Y. B.Sc	30 30
		Analysis of Talculii Fowder Analysis of Saline Water	1.1.0.30	30

12. Details of equipment purchased in each department from DBT grant. (item, no., cost, date of order placed, purchase/installation)-

Sr.No.	Department	Amount
i.	Botany	802775
ii.	Zoology	782010
iii.	Physics	990594
iv.	Chemistry	435937
	Total	3011316

Department of Botany

Sr. No.	Name of the instrument	Quantity Received during the year	Total Cost	Date of Order Placed	Date of Purchase/Installation
1	Turbidity Meter	2	38,940	18/09/2018	26/10/2018
2	Micropipettee – 05 t0 10	4			
3	Micropipettee – 10 t0 100	4			
4	Micropipettee – 100 t0 1000	4			
5	Horizontal apparatus – 4 well (Electrophoresis)	10	166,097	18/09/2018	23/10/2018
6	Vertical apparatus -4 Well (Electrophoresis)	10			
7	Power pack Single sided (Electrophoresis)	10			
8	Soil test kit	6	24,865	18/09/2018	26/11/2018
9	Heating mantle	10	84,370	30/10/2018	03/01/2019
10	pH Meter	4			
11	Conductivity Meter	4			
12	Computer	1	34,397	02/11/2018	28/11/2018
13	Sound Level Meter	3	26,550	18/09/2018	17/01/2019
14	Printer	1	18,880	29/11/2018	26/02/2019
15	Colorimeter	5	49,236	18/09/2018	09/02/2019
16	Pocket pH Meter	2	27,848	18/09/2018	11/02/2019
17	TLC Plates	5			
18	Led Microscope	20	204,034	20/02/2018	09/03/2019
19	Digital Balance	1			
20	Centrifuge Machine	1			
21	Micro centrifuge Machine	1			
22	Water testing kit	1			
23	Compound Microscope	20	82,600	20/02/2019	23/03/2019
24	Water Still	1	10,620	05/03/3019	26/03/2019
25	Spectrophotometer	1	34,338	20/02/2019	12/03/2019
		Total	802,775		

Department of Zoology-

Sr. No.	Name of the instrument	Quantity Received during the year	Gross Total	Date of Order Placed	Date of Purchase/Installation
1	Pocket pH Meter	5		.19/9/2018	23/10/2018
2	TLC Plate	5	32,450		
3	Turbidity Meter	2		26-10-18	5/11/2018
4	Micropipettee – 05 t0 10	4	38,940		
5	Micropipettee – 10 t0 100	4			
6	Micropipettee – 100 t0 1000	4			
7	Haemocytometer	20		19/9/2018	26/11/2018
8	Sahils Pipette	20	38,704		
9	Haemometer	15			
10	Hand Refractometer –(0-32%)	4			
11	BOD Incubator	1		30/10/2018	15/12/2018
12	pH Meter	2	76,110		
13	Computer	1	34,397	2/11/2018	28/11/2018
14	Printer	1	18,880	29/2/2018	26/02/2019
15	Led Microscope	20		20/2/2019	09/03/2019
16	Digital Balance	1	204,034		
17	Centrifuge Machine	1			
18	Micro centrifuge Machine	1			
19	Water testing kit	1			
20	Horizontal apparatus – 4 well(Electrophoresis)	10	166,097	20/2/2019	14/03/2019
21	Vertical apparatus -4 Well (Electrophoresis)	10			
22	Power pack Single sided (Electrophoresis)	10			
23	Compound Microscope	20	82,600	.20/2/2019	23/03/2019
24	Microtome	2	55,460	3/3/2019	31/03/2019
25	Spectrophotometer	1	34,338	20/2/2019	12/03/2019
		Total	-00.010		
			782,010		

Department of Physics -

Sr.	Item	Qty.	Cost	Date of	Date of
No.				Order	Purchase/Installation
				Placed	
1	Four Probe Method	1			
2	E/M by Thomson's method	1	66552	20.10.2018	10.12.2018
3	Four Probe Method	1			
4	E/M by Thomson's method	1	66552	06.03.2019	20.03.2019
5	Digital Storage Oscilloscope	1	31860		08.12.2018
6	Hall Effect Kit	1	30916		10.12.2018
7	Tina Design suit	1	64900		12.12.2018
8	Young Modulus of metal rod	1	11682	20.10.2018	12.12.2018
	Pic Kit 3 only Microchip				
9	Programmer/ Debugger	2			
	Pic Kit 3 only Microchip				
1.0	Programmer/				
10	Debugger/Evaluation kit	2			
11	Digital IC Trainer kit	5	63720	20.10.2018	24.12.2018
12	G. M. Counter Apparatus	1	75225	20.10.2018	31.12.2018
	Optical fiber kit	1			
13	Op-Amp Mini Trainer kit	5	41300	20.10.2018	26.02.2019
14	Optical fiber kit	1	29500	06.03.2019	22.03.2019
	Young Modulus of metal rod by				
15	interference method Besto model 2385	1			
13	Hall Effect Kit Mark control	1			
16	systems make	1	42598	06.03.2019	25.03.2019
17	CRO 20 Mhz Dual trace Digital				
	Scientech	3	77880	15.03.2019	23.03.2019
18	Microcontroller 8051				
	Anshuman kit	3			
19	Spectrometer	2			
20	Travelling microscope 3				
	Motion superior quality	2	87320	15.03.2019	24.03.2019
21	CRO 20 Mhz Dual trace Digital	0			
	Scientech	2			
22	Digital Storage Oscilloscope 50		00000	45.00.0010	06.00.0040
	Mhz Keysight make	1	80830	15.03.2019	26.03.2019

Sr. No.	Item	Qty.	Cost	Date of Order Placed	Date of Purchase/Installation
23	Newton's ring Apparatus Acrylic	3			
24	Analyser & Polariser Plastic	2			
25	Hysterisys Apparatus with Compass	1			
26	Copper boiler 2 Ltr	2			
27	Ultrasonic Interferometer	1			
28	Sodium source 35 W Bulb	2			
29	Sodium source 35 W choke	2	77880	15.03.2019	28.03.2019
30	Mercury source lamp+ choke 80 watts+ 80 watt Lamp+				
	wooden box	3			
31	Calorimeter full set	6			
32	Tunning Fork Set Best Quality	2			
33	Lees method full set	2			
34	Mercury source lamp+ choke 80 watts+ 80 watt Lamp+				
	wooden box	3	28599	15.03.2019	25.03.2019
35	LVDT Kit full set	2			
36	JFET as Switch Kit	3			
37	JFET as Amplifier Kit	3	48380	15.03.2019	25.03.2019
38	Logic Circuit Trainer DL-01	5			
39	Microprocessor Dynalog				
	Model Dyna-85 with SMPS	5	64900	15.03.2019	25.03.2019
		Total	990594		

Department of Chemistry-

S.No	Name of Equipment	Qty.	Item wise cost	Date of Order Placed	Date of purchase of equipment
1	Soxhlet Extraction	1	28,910	29/01/2019	09/02/2019
2	Hot air oven	1	27,730	19/03/2019	22/03/2019
3	Flame Photometer	1	52,156	19/03/2019	22/03/2019
4	Double stage Vacuum Pump with oil sealed –	1	49,430	19/03/2019	22/03/2019
5	PH meter	1	7,080	19/03/2019	22/03/2019
6	Turbidity meter	1	9,440	19/03/2019	22/03/2019
7	Thermometer, Beckmann	1	8,260	19/03/2019	22/03/2019
8	Microwave Oven	1	15,930	19/03/2019	22/03/2019
9	Analytical Balance	1	57,584	19/03/2019	22/03/2019
10	Visible Spectrophotometer	1	33,734	19/03/2019	22/03/2019
11	Polari Meter	1	53,383	19/03/2019	22/03/2019
12	Multimeter Digital	1	2,832	19/03/2019	22/03/2019
13	Abbe Refractometer	1	89,468	19/03/2019	22/03/2019
		Total	435,937		

13. Details of books & journals subscribed from DBT grant. i. Department of Botany

S.N.	Department	Title of Book	No of Copies	Author	Publisher	cost
1	Botany	1 Pharmacognosy	One	Kokate, Purohit	Nirali Prakashan	750/-
			_	& Gokhale		= 0 .
		2. iGenetics	Two	Russell	Pearson	1658/-
		3 . Ecology and Environment	One	P.D.Sharma		
		4.Practical Pharmacognosy	Three	Khandelwal& Sethi	Nirali Prakashan	660/-
		5.Microbiology	One	Pelczar, Krig&Chan	Mcgraw-Hill	925/-
		6 Biostatistical Analysis	One	Zar	Pearson	1009/-
		7.Fundamentals of Ecology	One	Odum	Cengage	799/-
		8.Textbook of Biotechnology	One	R C Dubey	S Chand	555/-
		9.Concepts of Ecology	One	Kormondy	Pearson	579/-
		10.Concepts of Genetics	One	Klug etal.	Pearson	839/-
		11.Soil Microbiology	One	Subba Rao N S	Oxford &IBH	580/-
		12. Pteridophyte		Vashishtha	S Chand	550/-
		13.Practical Pharmacognosy	One	Zafar	CBS Publishers	225/-
		14.Biochemical Methods	Five	Sadasivam & Manickam	New Age Intl Publ	1750/-
		15.Biodiversity	One	Krishnbamurthy	Oxford & IBH	452/-
		16.Environmental Science	Two	Santra	New Central Book Agency	1790/-
		17.Gynmosperm	One	Bhatnagar & Moitra	New Age Intl Publ	399/-
2	Zoology	1. Modern textbook of Zoology- Invertebrates	Two	R. L. kotpal	Rastogi Publication	1450/-
		2. Modern textbook of Zoology- Vertebrates	Two	R. L. kotpal	Rastogi Publication	1450/-
		3. Invertebrate Zoology	One	E. L. Jordan, Dr. P.S.Verma	S. Chand Publication	711/-
		4. Chordate Zoology	One	E. L. Jordan, Dr.	S. Chand	595/-

				P.S.Verma	Publication	
		5. Ecology and Environment	Two	P. D. Sharma	Rastogi Publication	1390/-
		6. Molecular Biology of the gene	One	James D. Watson	Pearson Publication	889/-
		7. Essentials of Toxicology	One	Casarett & Doull's	Mc Graw Hill Publication	2968/-
		8. Immunology- Introductory Textbook	One	Nandini shetty	New age international Publication	299/-
		9. BNHS field guides-Butterflies of India	One	Isaac kehimkar	BNHS	2200/-
4	Physics	Carbon Nanotube	One	Peter J.F. Harris	Cambridge University Press	4969/-
		An Introduction to material characterization	One	P.R. Khangaonkar	Penram International Publishing (I) Pvt. Ltd.	350/-
		Molecular structure & Spectroscopy	Two	G. Aruldhas	PHI Learning Private Ltd.	900/-
		Concept of Modern Physics	Two	Arthur Beiser Shobhit Mahajan S Raj Choudhury	Mc Graw Hill Education (India) Pvt. Ltd.	1430/-
		Practical Physics Space Science	Two	D. chattopadhyay P.C. Rakshit	New Central Book Agency (P) Ltd.	990/-
		Elements of X-Ray Diffraction	One	K S Krishna Swamy	New Age International (P) Ltd.	599/-
5	Chemistry	Essentials of Physical chemistry	01	Bahl	S ChandPublishing	765
		Heterocycilc chemistry	01	Bansal	New Age International Publishers	399
		Organic Spectroscopy Principal and Applicatios Second Edition	01	Mohan	Narosa publishing House	420
		march's advanced organic chemistry	01	March's	Willy India Pvt.Ltd	799
		organic chemistry volume -1 sixth edition	01	Finar	Pearson	839
		A Guidebook to mechanism in organic chemistry	01	Sykes	Pearson	520
		organic synthesis	01	Warren	Willy India Pvt.Ltd	504

	01		Trinity Press	
Reaction mechanism in organic chemistry		Mukherji	(An Imprint of Laxmi Publication Pvt Ltd	535
stereochemistry conformation and mechanism	01	Kalsi	New Age International Publishers	380
organic reaction mechanisms fourth edition	01	Ahluwaliya	Narosa publishing House	517
Quantum chemistry	01	Prasad	New Age International Publishers	380
organic chemistry 22 nd Edition	01	Bahl	S ChandPublishing	765
Basic concepts of Analytical chemistry	01	Khopkar	New Age International Publishers	360
Organic chemistry volume -2 Stereochemistry and the Chemistry Natural products Fifth edition	01	Finar	Pearson	799
Vogel's textbook of practical Organic chemistry	01	Furniss	Pearson	895
A textbook of Organic chemistry sixth edition	01	Bansal	New Age International Publishers	399
organic reaction And Their mechanisms	01	Kalsi	New Age International Publishers	319
Skoog and Fundamental of Analitycal chemistry	01		Cengage Learning	780
Spectrometric Identification of Organic chemistry	01	Silverstein	Willy India Pvt.Ltd	624
Principals of Physical chemistry	01	Puri	Vishal Publishing Co.	742
Principals of Inorganic chemistry	01	Puri	Vishal Publishing Co.	680
Polymer Science	01	Gowarikar	New Age International Publishers	320
Organic reaction Mechanisms	01	Bansal	New Age International Publishers	235

Thermodynamics For Chemists	01	Gastone	East – West Press Pvt Ltd	247
Organic chemistry Seventh Edition	01	Marrisam	Pearson	703

- 14. Qualitative improvements due to DBT support Please highlight (5 salient lines)
 - 1. The Star College Scheme has enabled the departments to procure new equipments in multiple numbers as a result of which the students are able to handle the instruments individually which has increased their confidence level.
 - 2. It was possible to organise an interdisciplinary conference in our college with the help of DBT funds which has enabled 81 undergraduate students of our college to participate in the conference and present their research work in the form of oral and poster presentations.
 - 3. The star college scheme has enabled the departments to purchase books and enrich the departmental library to which the students have an easy access.
 - 4. The scheme enabled our college to invite prominent personalities such as Dr. Rajendra Singh 'Jalpurush', the recipient of Stockholm water prize 2015 and Magsaysay award 2001 and Samuel La Budde the recipient of Goldman Environment Prize USA, 1991, as guest speakers which provided a broad academic exposure for both students and teachers
 - 5. The funds provided by DBT has given the students of our college an opportunity to get training from Research institutes such as CIFE, TECHCRYPTORS and NIPHT in areas such as *Spirulina* culturing, Green house technology and Robotics.
 - 6. Excursions and field visits conducted to various industries and research institutes under this scheme has enabled deserving students from economically poor sections also to attend such field trips and get academic and industrial exposure. Thanks to DBT.
- 15. Problems faced, if any, in implantation of the programme and utilization of DBT grant (intwo-three lines) .Nil

DBT Star College Scheme

Advisory Committee Meeting With External Experts

Minutes of the Advisory committee meeting of DBT Star College Scheme conducted on 08/08/2019.

- A meeting of the DBT Star College Committee members with the Advisory Committee members(External experts) was conducted on 8/8/2018, before the start of the program.
- Principal, Dr Sharmishtha Matkar welcomed Dr Rajendra Shinde, from St. Xavier's College, our Advisory committee member.
- Dr. Samir Theradlkar from Fergussan College, Pune was unable to attend the meeting due to some prior commitments.
- Dr. Shinde gave a short PPT presentation on how to go about the program highlighting the Do's & Don't.
- He emphasized the need to document all the activities.
- To judiciously utilize the funds giving examples of his experiences.
- To conduct all the extra practicals, project work as mentioned in the proposal.
- He emphasized the need to purchase all the instruments on time
- To lay more focus on interdisciplinary activities.
- Some staff members had queries related to the amount to be utilized by the different departments for activities such as field trips. Dr. Shinde answered all the quarries.
- The meeting ended with vote of thanks by the DBT Star College Scheme Co-ordinator. Dr Trisa Joseph



Chikitsak Samuha's Sir Sitaram and Lady Shantabai Patkar College of Arts and Science and V. P. Varde College of Commerce & Economics

S.V. Road, Goregaon (West), Mumbai - 400 062, Maharashtra(India)

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DBT STAR COLLEGE SCHEME

ADVISORY COMMITTEE

a. Principal

Dr. Sharmishtha Matkar

b. DBT Representatives (2)

I.Dr. Arvind Duggal, Adviser, DBT and

2. Dr. Garima Gupta, Programme officer,

Star College Scheme

c. External Experts (2)

Dr. Rajendra Shinde

Dr. Samir Sarfraj Terdalkar

d. Faculty Members (from all participating departments) Dr. Ramesh Yamgar (Chemistry)

Dr. Gautam Zodape (Zoology)

Dr. Sushmita Negi (Botany)

Mrs. Sangeeta Nirmal (Physics)

e. Coordinator

Dr. Trisa Palathingal

(Member-Secretary)



PRINCIPAL

S.S. & L.S. Patkar College of Arts & Science And V. P. Varde College of Commerce & Economics Goregaon (West), Mumbai 400 062.

DBT Star College Scheme

The following members were present at the meeting of the Star College Scheme coordinators with the external experts on the advisory committee on 08/-8/2018 at 11.00 am in Chikitsak Samuha Room.

Name of the Members

1. Dr. Shamishtha Malkan

2. Dr. Rujendra Shirde

3. Dr. Rainesh S. Yauger

4. Ar. L.V. Ladape

5. Mrs. Sargerta Nimal

6. Dr. Suskmite Hege

7. Dr. Shailesh Towade

8. MR. PRASHANT S. KAMBEE

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10. Dr Tros Joseph

Signature

principal

External expert

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