

DEPARTMENT OF CHEMISTRY

Annual Report 2019-20

1) Date of Establishment of the Department

UG- June 1991

PG (Drug Chemistry) - June 2009

PG (Organic Chemistry) - June 2019

2) Built up area of the Department in Sq.Ft.:-

Sr.No	Year	Name of the Lab	Area in square Ft
1	2019-20	Lab-I Organic Lab	755.58 Sq.Ft
		Lab-II Inorganic Lab	755.58 Sq.Ft
		Lab-III Main Lab	1013.84 Sq.Ft
		Lab-IV Instrumental Lab	497.38 Sq.Ft
		Store Room	234.38 Sq.Ft
		HOD Cabin	121.00 Sq.Ft
		Staff Room	238.00 Sq.Ft
		Departmental Library	60.00 Sq.Ft
		Open Space	550.00 Sq.Ft
		Gas Chamber	70.00 Sq.Ft

3) Student Strength 2019-20

UG :-

Sr.No	Class	Male	Female	Total
1)	F.Y.B.Sc.	81	110	191
2)	S.Y.B.Sc.	57	122	179
3)	T.Y.B.Sc.	44	32	76
	Total	182	264	446

PG:-

Sr.No	Class	Male	Female	Total
1)	M.Sc.I Org	12	12	24
2)	M.Sc.I Drug	08	16	24
3)	M.Sc.II Org	08	14	22
4)	M.Sc.II Drug	05	14	19
	Total	33	56	89

4) Number of Teaching Staff

UG :- 09 F.T.

Sr.No	Name of Teacher	Qualification	Experience
1)	Dr.D.D.Patil	M.Sc.(Physical Chem)B.Ed.,M.Phil.,Ph.D.	33 Yrs.
2)	Dr.S.S.Borhade	M.Sc.(Physical Chem),M.Ed.,Ph.D.	27 Yrs.
3)	Prof.S.B.Surve	M.Sc.(Inorganic Chem), B.Ed.	26 Yrs.
4)	Prof.D.C.Pawar	M.Sc.(Physical Chem)	25 Yrs.
5)	Dr.S.C.Dandwate	M.Sc.(Analytical Chem),Ph.D.	26 Yrs.
6)	Prof.R.K.Manjul	M.Sc.(Org.Chem),NET,SET,M.Phil	01 Yrs.
7)	Dr.S.P.Goskulwad	M.Sc.(Org.Chem),NET(JRF),Ph.D	01 Yrs.
8)	Prof.R.C.Kadlag	M.Sc.(Drug Chem),B.Ed.	06 Yrs.
9)	Prof.P.V.Nathe	M.Sc.(Org.Chem)	01 Yrs.

Number of Teaching Staff

PG :- 09 F.T.

Sr.No	Name of Teacher	Qualification	Experience
1	Dr.S.S.Borhade	M.Sc.(Physical Chem),M.Ed.,Ph.D.	08 Yrs.
2	Prof.R.C.Kadlag	M.Sc.(Drug Chem),B.Ed.	06 Yrs.
3	Prof.S.S.Kawade	M.Sc.(Biochemistry)	03 Yrs.
4	Prof.S.A.Khule	M.Sc.(Org.Chem),SET.	03 Yrs.
5	Prof.S.S.Patil	M.Sc.(Org.Chem)	02 Yrs.
6	Prof.S.A.Tambe	M.Sc.(Drug Chem),M.Ed.	01 Yrs.
7	Prof.P.B.Autade	M.Sc.(Org.Chem)	01 Yrs.
8	Prof.S.A.Wagh	M.Sc.(Org.Chem)	01 Yrs.
9	Prof.V.S.Bhangare	M.Sc.(Org.Chem)	01 Yrs.

5) Work-Load :- UG

Sr.No	Class	No.of Students	Theory	Practical	Total
1	F.Y.B.Sc.	Div A- 105 Div B - 86	03 x 02 = 06 03 x 02 = 06	08x4 = 32	12+32 = 44
2	S.Y.B.Sc.	Div A- 119 Div B - 80	04 x 02 = 08 04 x 02 = 08	09x4 = 36	16+36 = 52
3	T.Y.B.Sc.	76	06 x 04 = 24	Physical 04 x 04 = 16 Inorganic 04 x 04 = 16 Organic 04 x 04 = 16	24+48 = 72
				Total Workload	168

6) Distribution of Workload UG :-

Sr.No	Name of the Teacher	Class	Work-Load		Total
			Theo.	Pract.	
1)	Dr.S.S.Borhade	F.Y.B.Sc.	03	---	03
		S.Y.B.Sc.	---	08	08
		T.Y.B.Sc	04	04	08
		Total	07	12	19
2)	Prof.S.B.Surve	F.Y.B.Sc.	---	---	---
		S.Y.B.Sc.	04	04	07
		T.Y.B.Sc	04	08	08
		Total	08	12	20
3)	Prof.D.C.Pawar	F.Y.B.Sc.	03	04	07
		S.Y.B.Sc.	---	---	---
		T.Y.B.Sc	04	10	14
		Total	07	14	21
4)	Dr.S.C.Dandwate	F.Y.B.Sc.	---	04	04
		S.Y.B.Sc.	04	04	07
		T.Y.B.Sc	04	04	08
		Total	08	12	20
5)	Prof.R.K.Manjul	F.Y.B.Sc.	03	04	04
		S.Y.B.Sc.	04	08	11
		T.Y.B.Sc	02	---	02
		Total	09	12	21
6)	Dr.S.P.Goskulwad	F.Y.B.Sc.	---	04	04
		S.Y.B.Sc.	04	12	11
		T.Y.B.Sc	02	04	06
		Total	06	20	26
7)	Prof.R.C.Kadlag	F.Y.B.Sc.	---	12	12
		S.Y.B.Sc.	---	---	---
		T.Y.B.Sc	02	04	06
		Total	02	16	18
8)	Prof.P.V.Nathe	F.Y.B.Sc.	03	04	04
		S.Y.B.Sc.	---	---	02
		T.Y.B.Sc	02	14	16
		Total	05	18	23
	Total Work-Load		52	116	52+116 = 168
				Total	= 168

Distribution of Workload PG :-

Sr. No	Name of the Teacher	M.Sc.I Drug/Org.		M.Sc.II (Drug)		M.Sc.II (Org)		Total
		Theo	Pract.	Theo	Pract.	Theo	Pract.	
1	Dr.D.D.Patil	02	-	-	-	-	-	02
2	Dr.S.S.Borhade	-	-	-	09	-	-	09
3	Prof.R.C.Kadlag	-	-	-	09	-	-	09
4	Prof.R.K.Manjul	-	-	-	-	02	-	02
5	Prof.S.S.Kawade	02	10	06	15	-	-	33
6	Prof.S.A.Khule	02	12	-	-	04	15	33
7	Prof.S.S.Patil	02	10	04	06	-	09	31
8	Prof.S.A.Tambe	04	14	04	09	-	-	31
9	Prof.P.B.Autade	02	08	-	06	04	09	29
10	Prof.V.S.Bhangare	02	12	-	-	04	15	33
11	Prof.S.A.Wagh	02	18	02	-	02	06	30
	Total	18	84	16	54	16	54	242

7) Paper / Course taught during this year UG:-

Sr.No.	Class	Semester	Course No.	Name of the Course/ Paper
1)	F.Y.B.Sc	I	Paper – I Paper – II Paper – III	CH-101 :Physical Chemistry CH-102 :Organic Chemistry CH-103 : Chemistry Practical-I
2)	F.Y.B.Sc	II	Paper – I Paper – II Paper – III	CH-201 : Inorganic Chemistry CH-202 : Analytical Chemistry CH-203 : Chemistry Practical-II
3)	S.Y.B.Sc.	I & II	Paper – I Paper – II	Physical & Analytical Chemistry Organic & Inorganic Chemistry

			Paper – III	Practical
4)	T.Y.B.Sc.		Paper – I Paper – II Paper – III Paper – IV Paper – V Paper – VI Practical Paper – I Paper – II Paper – III	Physical Chemistry Inorganic Chemistry Organic Chemistry Analytical Chemistry Industrial Chemistry Environmental Chemistry Physical Chemistry Inorganic Chemistry Organic Chemistry

Paper / Course taught during this year PG:-

Sr.No.	Class	Semester	Course No.	Name of the Course / Paper
1)	M.Sc.I (Drug & Organic Chem)	I	CHP 110 CHI 130 CHO 150 CHG 190 CHP-107	Physical Chemistry-I Inorganic Chemistry-I Organic Chemistry-I General Chemistry-I Theory & Practical Basic Practical Chemistry- I
2)	M.Sc.I (Drug & Organic Chem)	II	CHP 210 CHI 230 CHO 250 CHG 290 CHI-227	Physical Chemistry-II Inorganic Chemistry-II Organic Chemistry-II General Chemistry-II Theory & Practical Basic Practical Chemistry- II
3)	M.Sc.II (Organic Chem)	III	CHO 350 CHO 351 CHO 352 CHO 353	Organic Reaction Mechanism Spectroscopic Methods in Structure Determination Organic Stereochemistry Free Radical,Photochemistry,Pericyclic Reaction and their applications
4)	M.Sc.II (Organic Chem)	IV	CHO 450 CHO 451 CHO 452	Chemistry of Natural Products Synthetic Methods in Organic Chemistry Carbohydrate Chemistry,Chiron Approach,Chiral Drugs & Medicinal Chemistry

			CHO 453 Practical CHO 347 CHO 447 CHO 448	Heterocyclic Chemistry & Assymmetric Synthesis Single Stage Preparation Double Stage Preparation Green Chemistry Practicals
5)	M.Sc.II (Drug Chem)	III	CHD 361 CHD 362 CHD 363 CHD 364 A CHD 364 B Practical CHD 367	Chemistry of Heterocycles and Biologically Active Compounds Advanced Analytical Techniques Drug Development Stereochemistry & Assymmetric Synthesis Pericyclic Reactions Practical Course - I
6)	M.Sc.II (Drug Chem)	IV	CHD 461 CHD 462 CHD 463 CHD 464 A CHD 464 B Practical CHD 468 CHD 469	Synthetic Organic Chemistry Chemotherapy Drug Design Organic Chemistry Organic Chemistry Practical Course – II Practical Course - III

8) Result :- UG (Previous Year 2018-19)

Sr.No.	Class	Adm.	App.	Pass	Fail	Abs.	%
1)	F.Y.B.Sc						
	CH-I	246	232	158	69	05	69.06
	CH-II	246	232	183	44	05	80.62
	CH-III	246	232	227	00	05	97.84
2)	S.Y.B.Sc						
	CH-I	120	116	75	41	00	64.21
	CH-II	120	116	66	50	00	56.89

	CH-III	120	116	114	02	00	98.27
3)	T.Y.B.Sc						
	CH-I	67	63	63	00	00	100
	CH-II	67	63	60	03	00	95.23
	CH-III	67	63	53	10	00	84.12
	CH-IV	67	63	58	05	00	92.06
	CH-V	67	63	56	06	00	88.88
	CH-VI	67	63	54	09	00	85.71
	Practical						
	CH-I	67	63	63	00	00	100
	CH-II	67	63	63	00	00	100
	CH-III	67	63	63	00	00	100

Rank Holders

Class	Rank No.	Name of the Student	Total Marks	Percentage (%)
T.Y.B.Sc	1	Yewale Sushama Prabhakar	903	75.25 %
T.Y.B.Sc	2	Ghuge Akshay Changdev	884	73.66 %
T.Y.B.Sc	3	Thorat Dipali Dattatreya	869	72.41 %

10) Result :- PG (Previous Year 2018-19)

Sr.No.	Class	Adm.	App.	Pass	Fail	Abs.	%
1)	M.Sc.I (Organic Chem) Sem - I						
	CHP 110	24	24	17	06	01	73.91
	CHI 130	24	24	14	09	01	60.86
	CHO 150	24	24	20	03	01	86.95
	CHA 190	24	24	23	00	01	100
	M.Sc.I (Organic Chem) Sem - II						
	CHP 107 Prac.	24	23	23	00	00	100
	CHI 147 Prac.	24	23	23	00	00	100
	CHP 210	24	23	20	03	00	86.95
	CHI 230	24	23	22	01	00	95.65
	CHO 250	24	23	23	00	00	100

	CHA 290	24	23	23	00	00	100
	CHO 247 Prac.	24	23	23	00	00	100
	M.Sc.I (Drug Chem Sem - I						
	CHP 110	23	21	05	16	00	23.80
	CHI 130	23	21	19	01	01	95.00
	CHO 150	23	21	12	08	01	60.00
	CHA 190	23	21	20	00	01	100.0
	CHP-108 Prac.	23	20	20	00	00	100.0
	M.Sc.I (Drug Chem Sem - II						
	CHP 210	23	20	17	03	00	85.00
	CHI 230	23	20	18	02	00	90.00
	CHO 250	23	20	14	06	00	70.00
	CHA 290	23	20	19	01	00	95.00
	CHD-248 Prac.	23	20	20	00	00	100.0
	CHD-128 Prac.	23	20	20	00	00	100.0
	M.Sc.II (Drug Chem) Sem - III						
	CHD 361	22	21	13	07	01	65.00
	CHD 362	22	21	06	15	00	30.00
	CHD 363	22	21	20	01	00	95.23
	CHD 364 A&B	22	21	08	13	00	38.09
	CHD 367	22	21	21	00	00	100
	M.Sc.II (Drug Chem) Sem - IV						
	CHD 461	22	21	18	03	00	85.71
	CHD 462	22	21	21	00	00	100
	CHD 463	22	21	13	08	00	61.90
	CHD 464 A & B	22	21	18	03	00	95.23
	CHD 468	22	21	21	00	00	100
	CHD 469	22	21	21	00	00	100

Rank Holders

Class	Rank No.	Name of the Student	Total Marks	Percentage (%)	Grade
M.Sc.II (Drug Chem)	01	Shinde Jyoti Raju	9.29	71.08	A ⁺
	02	Pawar Swapnali Balu	8.76	68.02	A
	03	Hase Aarti Sudam	8.88	66.00	A

11) **Aptitude Test-** Beginning of the academic year 2019-2020 , 48 students have applied for the M.Sc.I (Drug & Organic Chemistry) .We have conducted aptitude test of these students and 48 students selected for the said Examination

10) **Enrichment Program For Advanced Learner :** We have selected advanced learner students by Tutorials & 06 students selected from T.Y. B.Sc. Chemistry M. Sc. I & II Class. We have delivered the extra lectures to enrich their knowledge & score. We have also provided reference books them by library & We have also conducted extra class for solving reactions.

11) **Remedial Teaching For Slow Learners:-** The students who have got less marks in the Tutorials & Unit test, are 51 students from T.Y. B.Sc. Chemistry Class .We have conducted extra lectures on organized schedule for Slow learners & taught the same topic which has taught in regular class. We have also tried to develop their basic concepts & skills.

Remedial Teaching & Advanced Learners 2019-20

Statistical Data

Class	Slow Learners	Advanced Learners
F.Y.BSc	21	23
S.Y.BSc	21	28
T.Y.BSc	51	40
M.Sc I(Drug & Organic)	10	03
M.Sc II(Drug & Organic)	08	08
Total	111	102

12) **Student Evaluation:-** During academic year 2019-20 our Department had conducted 04 Tutorials , 02 Unit tests & 01 Terminal examinations.

13) **Guest Lectures :-** Our department has been organized guest lecture under Quality improvement scheme is as under.

Sr.No.	Date	Time	Class	Name of the Guest Lecturer	Topic
1)	02/02/2020	11.00 am to 04.30 pm	M.Sc I (Drug & Org Chem)	Dr. Ashok Borhade	Nuclear Chemistry
2)	11/01/2020	10.00 am to 12 .00 pm	T.Y.BSc Chemistry & M.Sc I & II	Dr. Bharat Kale	Research Methodology
3)	29/12/2019	10.00 am to 12 .00 pm	T.Y.BSc Chemistry & M.Sc I & II	Dr.Avinash Kumbhar	Applied Chemistry
4)	26/12/2019	10.00 am to 12 .00 pm	M.Sc I & II (Drug & Org Chem)	Dr.B.R.Thorat	Problem Solving Methodology
5)	23/10/2019	09.00 am to 12.00 pm	M.Sc II (Drug & Org Chem)	Dr.S.J.Takate	Spectroscopy
6)	23/10/2019	01.00 pm to 04.00 pm	M.Sc II (Drug Chem)	Prof.V.W.Godas e	Drug Developement
7)	23/10/2019	09.00 am to 12.00 pm	M.Sc I (Drug & Org Chem)	Prof.M.J.Gavand e	Symmetry
8)	24/10/2019	09.00 am to 04.00 pm	M.Sc II (Drug & Org Chem)	Prof.H.A.Dabha ne	Pericyclic Reactions
9)	23/10/2019 & 24/10/2019	01.00 am to 04.00 pm	M.Sc I (Drug & Org Chem)	Prof.S.R.Kshirsa gar	Thermodynami cs

**14) Completed Refresher Courses during academic Year 2019-20
(Short Term Course)**

Sr.No.	Name of the Teacher	Place	Period	Subject
1)	Dr. S.S. Borhade	Online	28 th to 04 th May 2020	National Level One Week Online Development Program
2)	Dr. S.S. Borhade	Online	15 th to 21 st April 2020	One Week Online FDP
3)	Dr.S.C.Dandwate	Online	23 rd to 28 th May 2020	ERUDITION 2020 Short term Faculty development Program
4)	Dr.S.P.Goskulwad	Online	15 th May 2020 to 21 st May 2020	Advanced Topics in Chemical Sciences
5)	Prof. R.K. Manjul	Online	20 th April to 17 th May 2020	Tools for online Teaching & Learning
6)	Prof. R.K. Manjul	Online	13 May to 20 May 2020	Research & Development Cell of Vivekananda College of Engineering for woman

15) Conducted any Seminar, Workshop, Conference during the academic year 2019-20

Sr.No.	Name of the Teacher	Place	Period	Subject
-	-	-	-	-

16) Attended any Seminar, Workshop, Conference etc by our Departmental Staff during academic year 2019-20

Sr. No.	Name of the Teacher	Name of Conference	Organized by	Date	Place
	Dr. S.S Borhade	Post Covid-19 Lockdown opportunities & challenges for Education ,	Sangamner College	16 th May 2020	Online

		Industry & Economy			
		International webinar on Mathematics : Tracing & Curve	Bharati Vidyapeeth College of Engineering Lvale Pune	9 th May 2020	Online
		Webinar Biodiversity Conversation Why & How	Somaiya Vidyavihar	28 th May 2020	Online
		Faculty awareness program on outcome Based Education NBA Accreditation	Sinhgad Institute of Technology & Science Narhe Pune	13 rd May 2020	Online
	Dr.S.C.Dandwate	Two days National conference on Revised Accreditation Framework : Issue & Perspectives	KJSC College , Kopergaon	9 th & 10 th August 2019	Kopergaon
		A cotemporary approach towards teaching learning medicinal chemistry	Bhratiya Jain Sanghatana's Arts, Science and Comm.College Wagholi, Pune	19,20, 21 Dec. 2019	Wagholi , Pune
	Prof. D.C. Pawar	Two days National conference on Revised Accreditation Framework : Issue & Perspectives	KJSC College , Kopergaon	9 th & 10 th August 2019	Kopergaon
	Dr.S.P. Goskulwad	International online Workshop on Nanomaterial Synthesis is Emerging Facet of the world	Late Pushpadevi Patil Arts and Science College Risod Dist.Washim(M.S.)	20 th May 2020	Online
	Prof. R.K. Manjul	International Webinar on Patent Filling & Prosecution	KPR Institute of Engineering & Technology Arasur, Coimbatore-641407	23 rd May 2020	Online

		International Webinar on E-learning/ICT based education	Jawaharlal Institute of Technology , Borawan (M.P)	24 th May 2020	Online
		National webinar on NAAC Accreditation & College Libraries	Sadguru Gadage Maharaj College Karad & Sharadchandra Pawar College Lonad	27 th May 2020	Online
		National webinar on Electronic Journals : From dusk to dawn	Lalbahaddur Shashri College, Satara	28 th May 2020	Online
	Prof. S. A. Khule	One-Day Workshop on " F.Y.B.Sc & M.Sc. Part-I Chemistry CBCS-Pattern "	S.A.G.M. College Kopergaon	16 th Sept. 2019	Kopergaon
		Three Days National Program of Teaching Learning and Capacity Building (TLC)	Dadasaheb Bidgar Arts,Science and Comm. College ,Peth	26 th to 28 Dec. 2019	Peth
	Prof. P.B.Autade	Three Days National Program of Teaching Learning and Capacity Building (TLC)	Dadasaheb Bidgar Arts,Science and Comm. College ,Peth	26 th to 28 Dec. 2019	Peth
	Prof. P.V. Nathe	Three Days National Program of Teaching Learning and Capacity Building (TLC)	Dadasaheb Bidgar Arts,Science and Comm. College ,Peth	26 th to 28 Dec. 2019	Peth

Summary :-

Sr. No.	Name of the Teacher	University Level	State Level	National Level	International Level
1)	Dr. S.S Borhade	-	-	01	02
2)	Dr.S.C.Dandwate	-	-	01	-
3)	Prof. D.C. Pawar	-	-	02	-
4)	Dr.S.P. Goskulwad	02	-	-	01
5)	Prof. R.K. Manjul	-	-	02	02
6)	Prof. S. A. Khule	01	-	01	-
7)	Prof. P.B.Autade	-	-	01	-
8)	Prof. P.V. Nathe	-	-	01	-

17) Research Project On going :-

Nil.

18) Ph.D Research (On going)/ Completed :-

03 (On going)

01 Completed

19) Details of Research Students Working in the College :-

Nil

20) Research Paper Publication :-

01 Supramolecular self assembly of naphthalene dimine bolaamphiphile with biological important amines cyclam spermine and melamine

21) Information of Books & Journals Subscribed and their cost :-

Sr. No.	Particulars	Quantity	Amount (Rs.)
1)	Text Books	136	15,677
2)	Reference Books	15	19,315
3)	Journals	---	---
4)	Others	---	---

22) Budget Allocated to the Department :-

Instruments, Glassware, Chemicals Purchased in the Department :-
For UG Department

Total cost of the Purchased Instruments for the Department in 2019-20 :- Nil

Total cost of the Purchased Chemicals for the Department in 2019-20 :- Rs. 1,18,418 /-

Total cost of the Purchased Glassware for the Department in 2019-20 :- Rs. 92,723 /-

For PG Department

Total cost of the Purchased Instruments for the Department in 2019-20 :- Rs. 79,850 /-

Total cost of the Purchased Chemicals for the Department in 2019-20 :- Rs. 1,15,606 /-

Total cost of the Purchased Glassware for the Department in 2019-20 :- Rs. 92,548 /-

Total Cost of the Purchased Books for the Department in 2019-20 Rs. 34,992 /-

Total Cost of the Purchased Journals for the Department in 2019-20 :- Nil

23) Prize Winners of the Department :- Nil

24) Best Practices of the Department :-

Sr. No.	Program
1)	Soil & Water Testing
2)	Industrial Visit
3)	Departmental Staff donated books for Departmental Library
4)	Chem Festival – Rangoli & Poster Presentation Competition

25) Future Plan of the next Academic Year i.e. 2020-2021

- 1) To organize Workshop for farmers on Soil & Water testing
- 2) To organized International Conference
- 3) To organized NET/SET Workshop
- 4) To start Research Center
- 5) To organized Campus Interview for B.Sc. / M.Sc Students

Head of Department

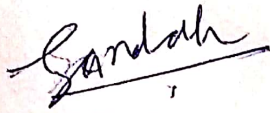
Dr. S. S. Borhade
HOD, Dept. of Chemistry
S.M.B.S.T. College, Sangamner

Mr. S.B. Surve


Principal

Principal
Sahakar Maharshi Bhausaheb Santuji Thorat
College of Art's, Science & Commerce
Sangamner - 422 605

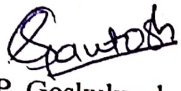
Mr. D.C. Pawar



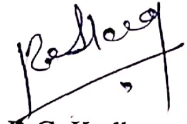
Dr. S.C. Dandwate



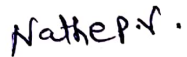
Mr. R. K. Manjul



Dr. S.P. Goskulwad



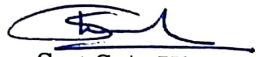
Mr. R.C. Kadlag



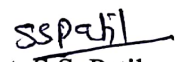
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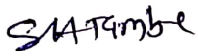
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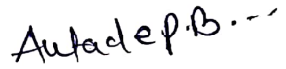
Smt. S.A. Khule



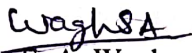
Smt. S.S. Patil



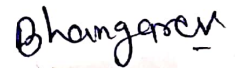
Smt. S.A. Tambe



Smt. P.B. Autade



Mr. S. A. Wagh



Mr. V.S. Bhangare