



K.L.E. Society's

BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE, CHIKODI

(Accredited at 'A' Grade by NAAC with CGPA of 3.26 in 3rd Cycle)

College with Potential for Excellence (CPE)

DEPARTMENT OF CHEMISTRY

REPORT

ON

INDUSTRIAL VISIT

TO

VISHWARAJ SUGAR INDUSTRY

**GHATAPRABHA ROAD, BELLAD BAGEWADI,
HUKKERI, BELAGAVI-591305, KARNATAKA STATE, INDIA**

ON

7th MARCH 2020

Arranged For

B.Sc. Final Year Students

INDUSTRIAL VISIT REPORT

**One Day Educational Industrial Visit To Vishwaraj Sugar Industries,
Ghataprabha Road, Bellad Bagewadi, Hukkeri, Belagavi-591305,
Karnataka State, India.**

Our college arranged one day Educational visit to **Vishwaraj Sugar Industries, Ghataprabha Road, Bellad Bagewadi, Hukkeri, Belagavi** on 7th March, 2020 for B.Sc. final year students of Chemistry Department. This Industrial visit was helpful to develop and enhance the practical knowledge of students as well as our faculty members and they get to know about sugar production and Maintenance work.

NAME OF COMPANY	VISHWARAJ SUGAR INDUSTRIES LTD.
ADDRESS OF COMPANY	POST- BELLAD BAGEWADI, GHATAPRABHA ROAD, HUKKERI, BELAGAVI-591305, KARNATAKA STATE, INDIA.
CHAIRMEN OF COMPANY	SHRI. UMESH V. KATTI
ESTABLISHED YEAR	1995
NATURE OF BUSINESS	PRODUCING SUGAR, POWER, SPIRITS (INCLUDING IML, INDUSTRIAL SPIRITS & ETHANOL) & COMPOST
CAPACITY	11000 TCD SUGAR CANE CRUSHING & CO-GENERATION UNIT OF 14 MW
DATE OF VISIT	7 th MARCH , 2020
BRANCH INVOLVED	DEPARTMENT OF CHEMISTRY (B.Sc. PCM & CBZ)
SEMESTER	B.Sc. VI SEM.
CONCERNED SUBJECT	B.Sc. VI SEM. CHEMISTRY PAPER – I PRACTICAL CURRICULUM
TOTAL STUDENTS	124
TRANSPORT FACILITY	COLLEGE BUS
FACULTY COORDINATORS	1. Shri. RAJU 2. Dr. S. M. PATIL 3. P M.PALANKAR 4. S. S. LATTHE 5. G B. JAMBAGI 6. S D. KOTABAGI 7. P B. DUBALE

BRIEF ABOUT PLANT:

Vishwaraj Sugar Industries Limited was incorporated in the year 1995. It has an integrated sugar based unit producing Sugar, Power, Spirits (including IML, Industrial Spirits and Ethanol) and Compost. The production facility is located at Bellad Bagewadi, Belgaum District in North West Karnataka, which is classified as a High Recovery Zone for sugar by the Government of India.

Vishwaraj Sugar Industries an integrated sugar and other allied products manufacturing company operating from Belgaum District in the State of Karnataka which is designated as one of the "High Recovery zones" for sugar production by Government of India. It operates a single location sugar unit having licensed crushing capacity of 11,000 TCD. In addition to sugar it also manufacture other allied products like Rectified Spirits, Extra-Neutral Spirits, Indian Made Liquor, Vinegar, Compost, Carbon dioxide (CO₂), etc. and are further engaged in the generation of Power for captive consumption as well as external sale.

In the year 2001, It commenced operations of manufacture of Distillery products such as Ethanol, Rectified Spirit and Extra Neutral Spirit. In the year 2006, Company implemented backward integration and began commercial operations for Sugar manufacture from sugarcane, along with Co-Generation capabilities. During the year 2008, It began bottling of Indian Made Liquor. Currently integrated unit processes sugarcane to produce sugar and the by-products are used to generate electricity for captive use and commercial sale, manufacture rectified spirit, ENA, IML, Vinegar, Press-mud and Compost. Present licensed manufacturing capacity for our various products is given below:

SL. No.	Product	Current Approved Capacity
1	Sugar	2,42,000 Tons / Year(1)
2	Bagasse	6,60,000 Tons / Year(1)
3	Molasses	88,000 Tons / Year(1)
4	Rectified Spirit	30,000 KL / Year
5	Extra Neutral Alcohol (ENA)	21,000 KL / Year
6	Industrial Ethanol	90,000 KL / Year
7	Electricity / Power	4,96,800 MW / Hr
8	Brewed Vinegar	34,500 Ltrs. / Day

(1) The above licensed capacities are equivalent to a total Sugarcane crushing capacity of 11,000 TCD working for approximately 200 days per year (Crushing Season) at an average 11% recovery rate for sugar, 30% for Bagasse and 4% for Molasses.

PROCESS OBSERVED BY STUDENTS:

By visiting this plant students observed the process of producing sugar and also a working of steam power plant furnishes, boiler, water treatment plant, cooling plant. We also showed the workshop of the plant.

Vishwaraj Sugar Industries Major products are as follows:

SUGAR :

The sugar which is a Carbo-hydrate is obtained from sugar cane and is known as Cane Sugar. It contains 99.50% sucrose. Actually cane sugar is chemically known as Sucrose which is disaccharide. It is soluble in water. Sucrose is dextrorotatory on hydrolysis.

BAGASSE :

Bagasse is the residue obtained from crushing cane in the mills. It contains about 50% moisture and 2% sugar and the balance is fiber. It is also very commonly used as fuel in boilers in the Sugar Factory. Bagasse is used as a raw material for the production of Cellulose, Furfural, Paper, Particle board, Cattle feed etc.

MOLASSES :

Molasses which is also known as black strap molasses or treacle is a dark brown viscous liquid obtained as a by-product in processing Cane Sugar. It contains nearly 45% uncrystallized, fermentable Sugar & some Sucrose.

RECTIFIED SPIRIT (RS) :

It is manufactured by Formation & Distillation of molasses. It is used for manufacturing of Acetic Acid, Acetone, Oxalic Acid Absolute Alcohol & other various chemicals.

ABSOLUTE ALCOHOL (ETHANOL) :

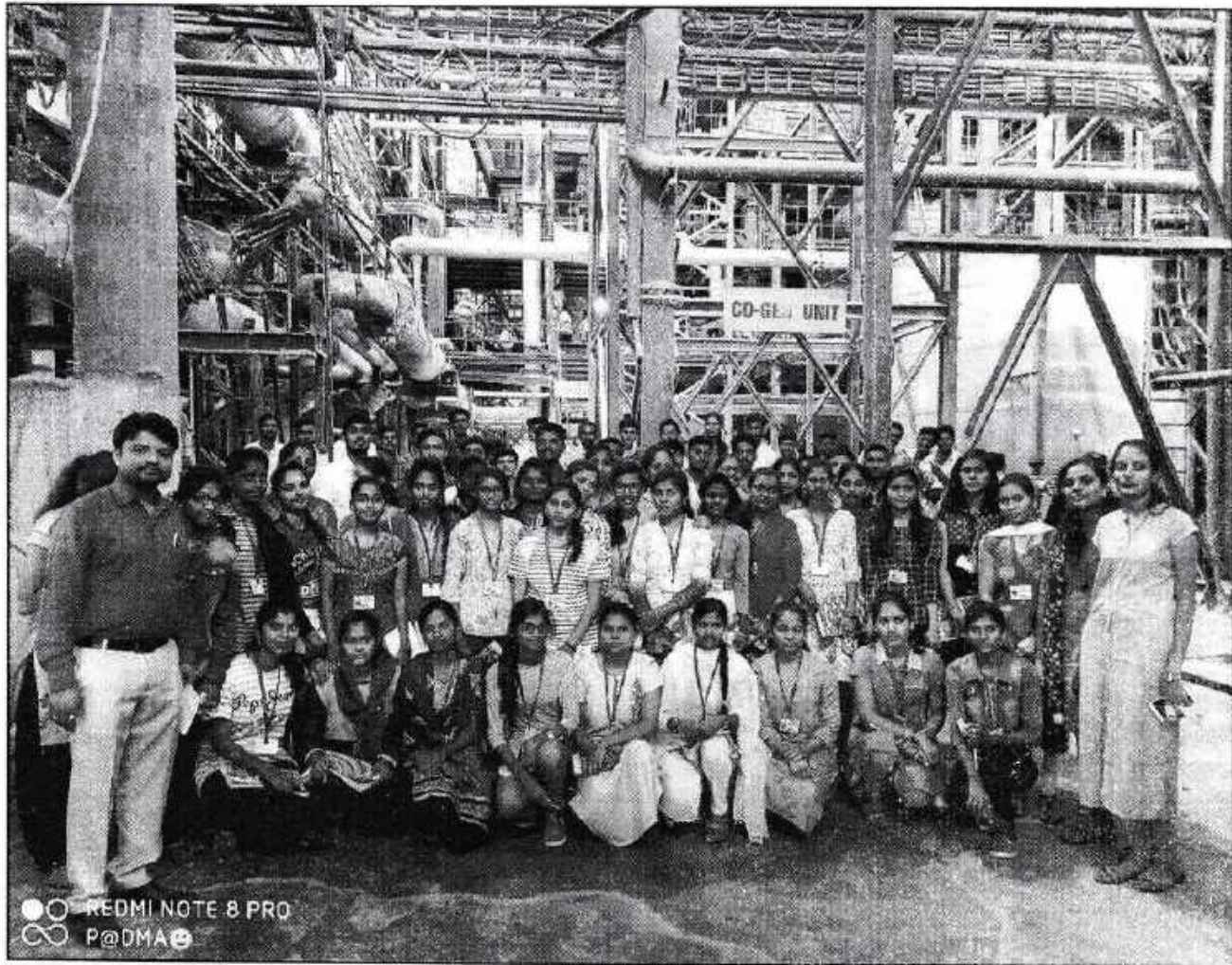
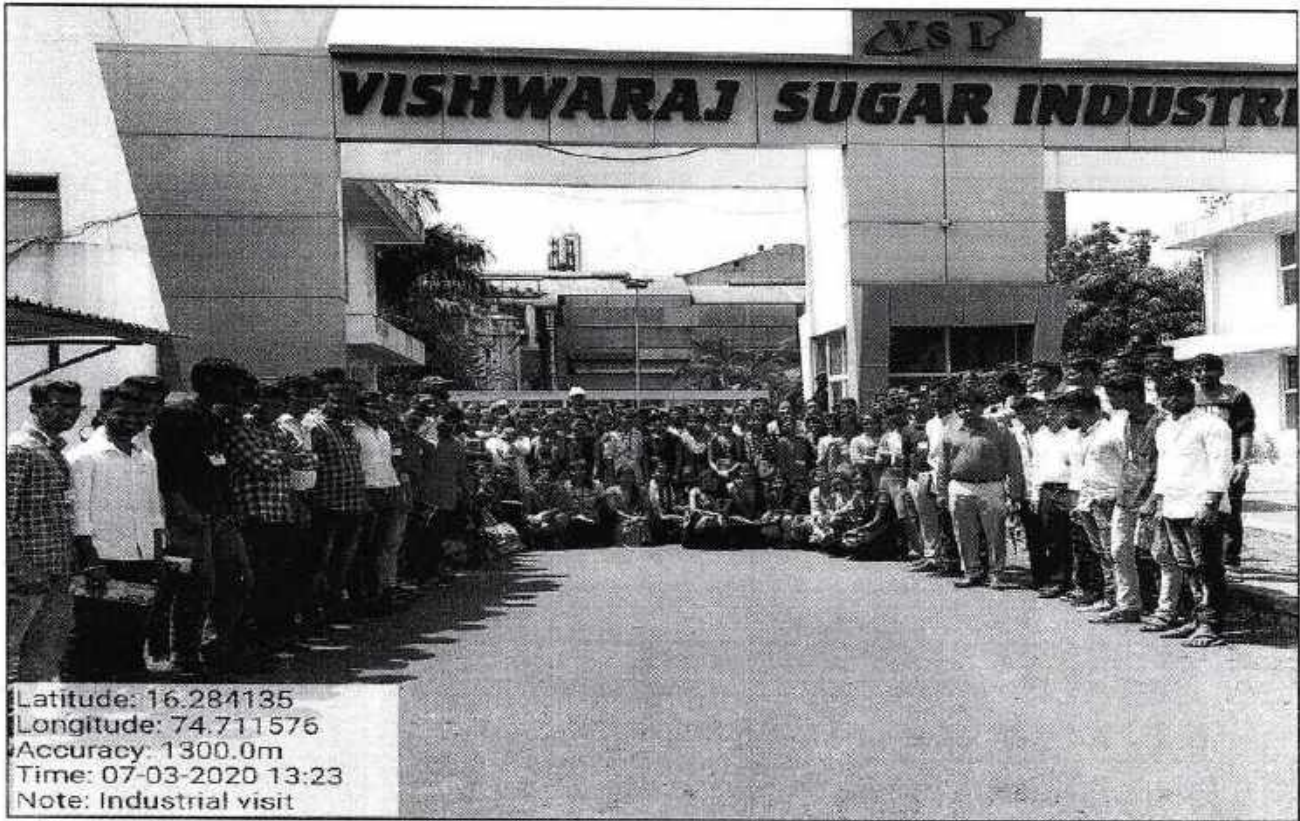
It is manufactured by Azeotropic Distillation . It is used as Fuel in Automobile and also in Pharmaceutical Industries.

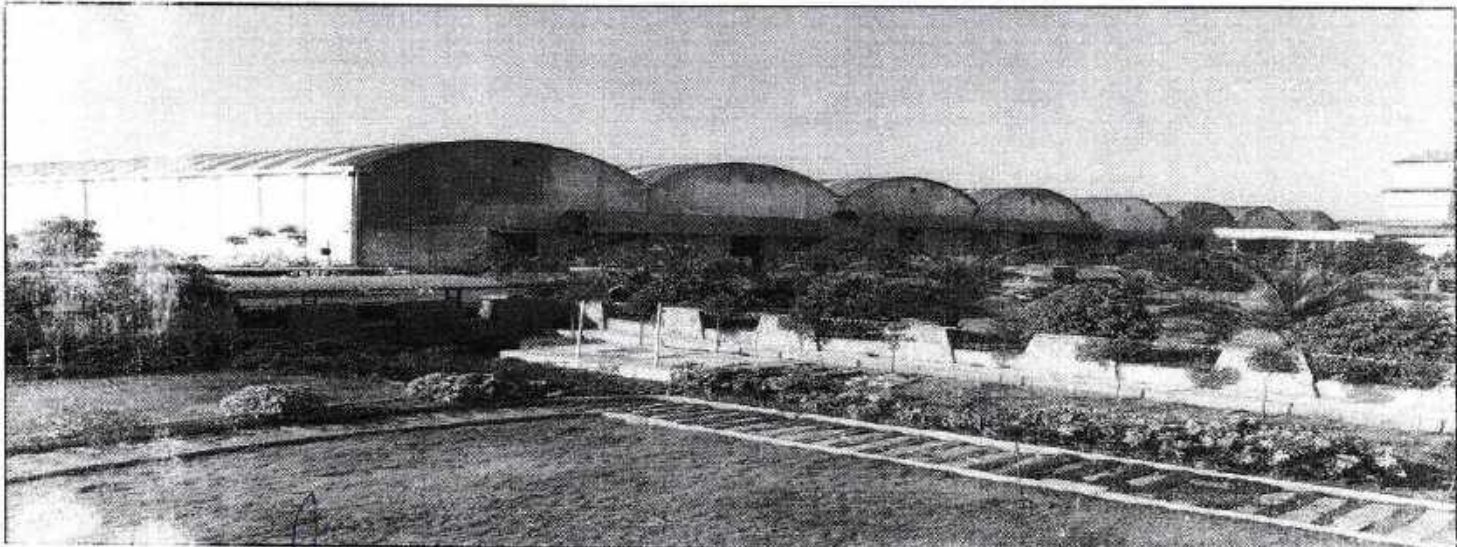
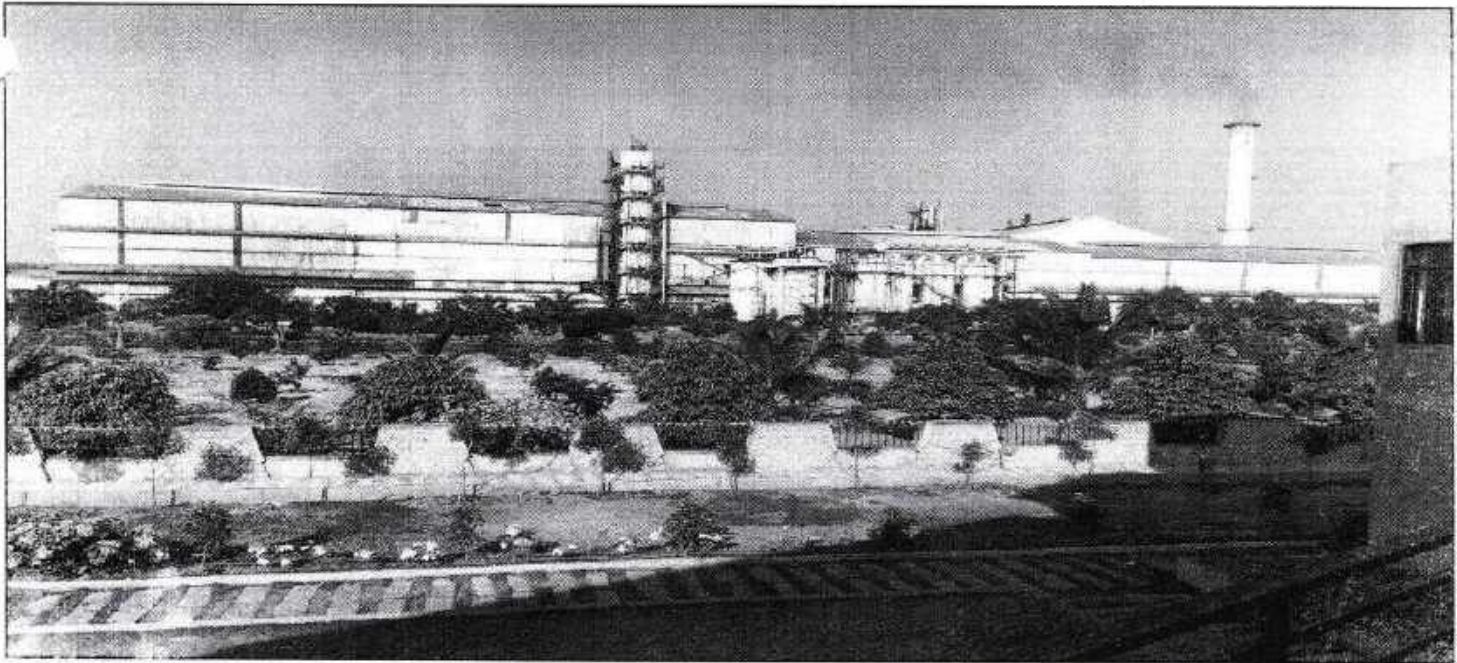
SUMMARY OF THE INDUSTRIAL VISIT:

From this visit students and faculty members understands how electricity can be generated through steam power plant as well as working principles of furnish type boilers. Students and faculty members also observed cooling of processed water by cooling power, production process of sugar, Bagasse, Molasses, Rectified Spirit, Industrial Ethanol, Electricity / Power, Brewed Vinegar.

The visit was aimed to enhance the knowledge of the students, to understand the operations that are used in the SUGAR INDUSTRY and to understand the different process implemented to prepare sugar from sugarcane. At Industry students were able to see and understand different mechanical operation carried out in industry e.g. cutting, shredding, screening, centrifuging etc. Students have experienced the actual operations which are being taught in the classroom e.g. evaporation, crystallization etc. The aim of visit was fulfilled at the end of "SUGAR INDUSTRY" visit.

Photos taken during Industrial visit are attached below.





[Signature]
 Head
 Dept. of Chemistry
 B. K. College, Chikodi.



[Signature]
 PRINCIPAL
 J. K. Arts, Science & Commerce College
 CHIKODI - 581 201.



Date: 02/03/2020

DEPARTMENT OF CHEMISTRY

Notice

As every year department of chemistry is organizing an Industrial visit to **Millenium India Starch PVT Ltd, Athani**. on **7th March, 2020** for B.Sc. Final year Students.

Objectives of Industrial visit:

1. To create awareness about manufacturing process of industry.
2. To give industrial exposure.


Departure Time : 8:30 A.M. on 7th March, 2020

Arrival Time : 6:00 P.M. on 7th March, 2020

Name of Company : Millenium India Starch PVT Ltd, Athani. Dist: Belagavi

All B.Sc Final year students are requested to register their names along with **100/- Rs.** in department of chemistry on or before **4th March, 2020 without fail.**

Note: Industrial visit is compulsory for all B.Sc. final year students.


Head of the
Department of Chemistry
HOD
B. K. College, Chikodi - 591 201



K.L.E. SOCIETY'S
BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE, CHIKODI
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College with Potential for Excellence (CPE)

Date: 03/03/2020

To,

**The Managing Director,
 VISHWARAJ SUGAR LIMITED,
 GHATAPRABHA ROAD, BELLAD BAGEWADI,
 HUKKERI, BELAGAVI-591305, KARNATAKA STATE, INDIA**

Sir,

Sub: Seeking Permission for Industrial Visit to your esteemed organization.

As part of the Rani Channamma University Belagavi, curriculum of B.Sc. third year students have industrial visit. To facilitate the onsite working procedure of a esteemed organization such as yours and the curriculum demand, we request you for the industrial visit. Kindly permit us to visit your esteemed organization for a **team of 45 students 3 groups (Including Staff Members) on March 7th 2020.**

Kindly grant us permission for the industrial visit and make the necessary arrangements for the same. We look forward to a positive reply from your side.

Thanking You,

Yours Sincerely,

Prof. S. B. Vanjire,
 Head of the Department of Chemistry,
 KLE's B. K. College, Chikodi -591201, Dist: Belagavi
 Contact: 7349747434, 7892201626

Website: www.klesbkcollegechikodi.edu.in

Received by
 BF
 11/3/20



KLE Society's
BASAVAPRABHU KORE ARTS, SCIENCE AND COMMERCE COLLEGE, CHIKODI
(Accredited at 'A' with 3.26 CGPA in 3rd Cycle of A & A)

2019-2020
CHEMISTRY DEPARTMENT

**Following students of VI sem were permitted to participate in the
tour organized by Chemistry Department**

Sl. No	Name of the student
1	Abhishek Taradale
2	Aishwarya Paramnavar
3	Akshata Bandagar
4	Akshata Karoshi
5	Akshata Mirje
6	Akshata Upadhye
7	Akshata Walake
8	Akshay Pujari
9	Amruta Gangale
10	Aniket Bekkeri
11	Apurva Patil
12	Arati Chougale
13	Aroodh Mallapure
14	Babita Naik
15	Basavaraj Bhoomar
16	Bavana Sarapure
17	Chaitra Chajagoud
18	Chaitra Mukkannavar
19	Chaitra Mathapati
20	Chetan Sadalage
21	Deepika Potadar
22	Ganesh Bastawade
23	Gangadhar Bakale
24	Jasmin Tamboli
25	Jayashree Mali
26	Kaveri Kulakarni
27	Kavyashree Kesti
28	Keerti Akkole

Continued to page 2

29	Keerti Maradi
30	Krishna Nandani
31	Krishna Pujeri
32	Laxmi Devangol
33	Laxmi Khot
34	Laxmi Metri
35	Mahesh Hegale
36	Manjunath Bhoje
37	Manjunath Nandagaon
38	Manoj Holevvagol
39	Meghashri Gajanan Gundakalle
40	Neha Pol
41	Nikhita Bamane
42	Nilesh Chougala
43	Nivedita Hanje
44	Pallavi Thorushe
45	Pooja Kasar
46	Pooja Khot
47	Pooja Pujari
48	Pooja Ravan
49	Poonam Magdum
50	Poornima Kumbar
51	Prachi Patil
52	Pradnya Jaganade
53	Prajakta Latawade
54	Preetam Hiremath
55	Preeti Wader
56	Preetam Magadum
57	Priyanka Chougala
58	Priyanka Halijol
59	Prijanka Vanjeri
60	Raghunath Pawar
61	Rahul Kulagude
62	Rahul Ugare
63	Rakshata Kamate
64	Rashmi Tamadaddi
65	Rashmi Vantamure
66	Revati Khot
67	Rohini Drakshe
68	Rohini Swami
69	Rohini Molake
70	Rutuja Halappanavar

71	Sachin Hospeti
72	Sachin Kore
73	Sachin Shirahatti
74	Sagar Maishale
75	Sahana Salagare
76	Sakshi Mahishale
77	Samareen Jamadar
78	Sandya Kambar
79	Sapana Shiraguppe
80	Sapna Patil
81	Sarika Mali
82	Savita Halakarni
83	Savita Patil
84	Seema Heddure
85	Seema Rukade
86	Shankare Guggare
87	Shashikala Jadhav
88	Shashikumar Saptasagar
89	Shivanand Sangati
90	Shivanand Mudasi
91	Shivani Metri
92	Shivaraj Benurakar
93	Shobha Akkole
94	Shradha Pawar
95	Shreya Mugali
96	Shridevi Hunnarage
97	Shruti Gundappagol
98	Shruti Gurav
99	Shruti Mohite
100	Shruti Saptasagare
101	Shubham Jakate
102	Shweta Koli
103	Sneha Gavade
104	Snehal Ninganure
105	Sonali Bhandagar
106	Sonal Mirje
107	Soumya Shedabale
108	Sourabh Kokane
109	Sourabh Shedabale
110	Supriya Balikai
111	Sushila Hiremath

112	Sushilavva Hullennavar
113	Tanuja Shinde
114	Tejashwini Sagare
115	Usha Devarushi
116	Vachana Kolakar
117	Vaibhav Halingali
118	Vani Chougule
119	Vanishree Muragoji
120	Varsha K Karagar
121	Varsha Patil
122	Vedashri Halyal
123	Vidya Bhagat
124	Vinay Gharabude




Prof. U. R. Rajput
PRINCIPAL
KLES'S Basavaprabhu Kore
Arts, Science and Commerce College
CHIKODI - 591 201