

Reflections 2022-23



Charutar Vidya Mandal's

V. P. & R. P. T. P. Science College

Vallabh Vidyanagar - 388 120

V. P. & R. P. T. P. SCIENCE COLLEGE



Vision:

To educate, empower and prepare globally competitive human resource through knowledge, employability, entrepreneurship skills by creating an environment conducive to learning and research in sciences, and critical thinking there by leading to creation of a strong institution through close affinity with its alumni.

Mission:

We dedicate ourselves to the continuation of our founders' vision of scholastically uplifting rural youth along with value education to prepare globally competitive citizens who contribute towards nation building.

Goals:

- To create and nourish a stimulating learning environment that ensures a globally relevant education, based on eternal human values.
- To forge and reward excellence in the curricular as well as extra-curricular sectors so as to ensure the scholars' global competitiveness.
- To tap, nurture and unleash the innovative entrepreneurial abilities of scholars and thereby ensuring lifelong socio-economic value- addition.
- To evoke and embellish the finest traits of human excellence that can dovetail into a sustainable career growth curve.
- To affiliate, associate, liaise or otherwise synergize with any institution body, entity, ethno-cultural Diaspora and the overall global fraternity in any form whatsoever, in support of the above.
- To initiate, consolidate and extrapolate any objectives, function and activities in support of the above.



V.P. & R.P.T.P. SCIENCE COLLEGE

VALLABH VIDYANAGAR

Reflection : 2022-23

(Annual College Magazine)

PATRONS

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Dr. S. G. Patel, Secretary, CVM

Prin. R.C.Talati, Jt. Secretary, CVM

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Shri. P. A. Lashkari, I/c. Principal

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Dr. Yogesh. B. Vadwala (Chemistry Dept.)

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Dr. Charudutt. R. Gurjar (English Dept.)

STUDENT MEMBER

Mr. Vedant Raval (Student Secretary)



V. P. & R. P. T. P. SCIENCE COLLEGE

Vallabh Vidyanagar - 388 120

Re - Accredited "A" Grade by NAAC, Bangalore and "A+" Grade KCG

Four-star rating by GSIRF (Gujarat State Institutional Ranking Framework)

Managed by Charutar Vidya Mandal

Website : www.vpscience.org

The Editorial Board is not responsible for the accuracy or otherwise for the opinions expressed by the contributors.



राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद
विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान
NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL
An Autonomous Institution of the University Grants Commission

Certificate of Accreditation

*The Executive Committee of the
National Assessment and Accreditation Council
is pleased to declare the
Vitthalbhai Patel and Rajratna P. J. Patel Science College
Vallabh Vidyanagar, Dist. Anand, affiliated to Sardar Patel University,
Gujarat as
Accredited
with CGPA of 3.13 on four point scale
at A grade
valid up to February 13, 2025*

Date : February 14, 2020



*S. C. Sharma
Director*

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Message from the Editors



Dear all,

With enjoyment and pleasure, we put forward the next dynamic piece of creativity, self-expression and enthusiasm of our students in our Annual Magazine 'REFLECTIONS-2022-2023'! 'REFLECTIONS' is much more than just a magazine where the potential, talents, achievements and vision of our college gets reflected.

Purpose of education is said to be achieved when an individual is able to express ones best creativity. We intend to bring best out of our students through this venture, wherein expressions are without any restriction and reservation. This helps in intensifying the bond between the college and students which creates an everlasting memory in the minds of the students.

We, on the behalf of Literary Club, express our gratitude to our beloved Principal Mr. P. A. Lashkari for his enduring faith in the entire Literary Club. His unconditional support has always acted as a catalyst to bring out the best out of us. We thank Dr. P. M. Patel, the Vice President of the Students' Central Committee and we also appreciate the efforts of Student Secretaries, other members of editorial board and contributors for the magazine.

We hope this venture of ours will find a special place in the heart of the readers. We need your feedback to take the magazine to newer heights.

Wishing everyone great success and a synergetic life !

Dr. R. H. Parab
Editor & Ex-Officio
Literary Club

Dr Y. B. Vadwala
Editor & Ex-Officio
Literary Club

Message from the Chairman's Desk



Er. Bhikhubhai B. Patel
CHAIRMAN



CHARUTAR VIDYA MANDAL


P. B. NO. 22 VALLABH VIDYANAGAR-388 120 GUJARAT INDIA
GRAM : CHARUTAR.PHONE : (O) 02692-238400, Fax : 236493
Website : www.ecvm.net e-mail : cvmandal@hotmail.com

MESSAGE

It is a joyous moment to know that V.P. & R.P.T.P. Science College- the first college of the sacred land of Vallabh Vidyanagar has completed 75 glorious years of service in the field of higher education and is ready to release its annual magazine 'Reflections' for the year 2022-'23.

The college magazine mirrors the different faces of development of the students from academics to co-curricular activities. It proves to be a rewarding experience for the students. College magazine has a great educative value. Budding talent finds its first exposure through this medium. I hope that this publication would be successful in achieving these objectives.

I would like to congratulate all of you on this happy occasion. My best wishes for the entire endeavor.


Er. Bhikhubhai Patel
Chairman
Charutar Vidya Mandal

From Vice-President Desk



MANISHBHAI S. PATEL
VICE-PRESIDENT



CHARUTAR VIDYA MANDAL

P. B. NO. 22 VALLABH VIDYANAGAR-388 120 GUJARAT INDIA
GRAM : CHARUTAR PHONE : (0) 02692-238400, Fax : 236493
Website : www.ecvm.net e-mail : cvmandal@hotmail.com

MESSAGE

I am very happy to acknowledge that V.P & R.P.T.P. Science College is regularly publishing annual college magazine “Reflections”.

Immense appreciation to the team V.P & R.P.T.P. Science College for carrying out various activities, extra- curricular as well as co-curricular in the year 2022-23. An official document “Reflections” in the form of college magazine showcases the efforts put in by the students and staff.

Hearty congratulations to all those who have contributed in developing this magazine for the year 2022-2023.

Wishing the best to team V.P & R.P.T.P. Science College.

Manish S. Patel
Vice President
Charutar Vidya Mandal

From The Hon.Secretary's Desk



CHAIRMAN : ER. BHIKHUBHAI B. PATEL
HON. SECRETARY : DR. SHANTIBHAI G. PATEL



CHARUTAR VIDYA MANDAL

P. B. NO. 22, MOTA BAZAR, VALLABH VIDYANAGAR-388 120,
TA & DIST : ANAND, GUJARAT INDIA
PHONE : (O) 02692-238400
Website : www.ecvm.net e-mail : cvmandal@hotmail.com

MESSAGE

I feel proud to be an alumnus of one of the oldest college of Gujarat which was inaugurated by none other than the Iron man of India. The true recognition of any academic institution depends on the quality of education and overall development of students' personality. V.P. and R.P.T.P. Science College has been doing this job gracefully for last seven decades.

I congratulate the Principal and his truly hardworking team that devoted their time to bring out this edition and I hope that this practice will continue with even better and broader range.

My best wishes to all.

Dr.S.G.Patel
Hon. Secretary
Charutar Vidya Mandal

From The Hon.Jt.Secretary's Desk



CHAIRMAN : ER. BHIKHUBHAI B. PATEL
HON.SECRETARY : DR. SHANTIBHAI G. PATEL



CHARUTAR VIDYA MANDAL

P. B. NO. 22, MOTA BAZAR, VALLABH VIDYANAGAR-388 120,
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MESSAGE

“I don’t teach my children. I create conditions for them to learn.”-Albert Einstein

I am proudly saying that V.P. and R.P.T.P. Science College is the institution that provides students the atmosphere to explore and grow and identify their strengths since last 75 years. It gives me immense pleasure to note that V.P. and R.P.T.P. Science College is unveiling the annual college magazine of this year. Such activities bring out the creativity of the students and help them to learn valuable lessons of co-operation, leadership and teamwork.

I am very happy to convey my congratulations and best wishes to Principal, Faculty members and all the dear students for their endeavors in publishing this wonderful magazine.

Ramesh Talati
Hon. Jt. Secretary
Charutar Vidya Mandal

Message From The Principal's Desk

Dear students,

Education is the most powerful tool to bring desirable changes in our personality and also to bring positive changes in our society. It is the medium which enables us to move from darkness to brightness.



We have to create an awareness among people that our institution not only gives the education in various sciences, but also work with zeal to create enlightened citizens for this great democratic nation. I would request the staff and students to imbibe the idea of nation building in their minds.

“Reflections” is exclusively meant for bringing out the potential writing talent as a part of your overall personality development. We are sure that this magazine will help to acquire knowledge and skills, build character and enhance employability of our young talented students to become globally competent to spread the values of our nation.

I feel proud of being the Principal of such a magnificent institution fully dedicated for the betterment of students. I congratulate all the staff members and all my dear students who expressed their ideas through various mediums.

Wishing you the best for achieving success and scaling newer heights in the coming days.

Mr. P. A. Lashkari

I/CPrincipal

Message From Vice President's Desk

*“Education is the manifestation of perfection already in man”
- Swami Vivekanand*



We try to serve that type of education by which character is formed, inner strength is increased, the intellect is expanded. Academic development is very important, but apart from that, holistic development is also much important. This enhances the different dimensions of an individual and makes an individual a dynamic person.

It has been an honor and privilege to be the Vice President of the College Central Committee. Carrying this position gave me the opportunity to get to know the students closely. During this period I realized that what Swami Vivekanand said was absolutely true. Perfection already lies within each individual, the teacher's job is to recognize that perfection and bring it out.

College magazine can play a significant role in the education process. It help students to grow their thoughts, mould their character. It's very delightful to note that V.P. and R.P.T.P. science college has been publishing its college magazine since the very first year of its establishment in 1947.

I take this opportunity to thank Principal, the Central Committee, all the ex-Officios of various clubs, student secretaries, faculty members and all the students for their support and cooperation throughout the year.

Dr. P. M. Patel

(Vice President)

Students' Central Committee

Message From The General Secretary

“True leadership lies in ensuring that everyone is performing at their best, doing the work they are pledged to do and doing it well.”

– Bill Owens

Being the General Secretary of this prestigious college which is one of the oldest colleges of Gujarat is the most delightful and matter of great fortune for any student. I consider myself the luckiest person. Since, an American author and inspiration as speaker Simon Sinek said, “Leadership is not an expertise. Leadership is a constant education.” Working as a GS throughout the year I have felt these words of Simon Sinek to be true.

I would like to take this opportunity to thank our Principal Mr. P. A. Lashkari sir and the Vice President of the Students’ Central Committee, Dr. P. M. Patel sir and all the ex-officios for giving me this opportunity and for their constant support and faith.

As Simon Sinek said, “A boss has the title, a leader has the people” this line is futile without mentioning my colleagues. Here I sincerely thank all the committee members and beloved students for their co-operation and constant encouragement.

Thank you all!

Pratik Gohil

General Secretary

Message From The Student Secretary

I consider myself extremely fortunate that I have been provided the opportunity to render my humble services to uphold one of the prestigious responsibility of being the student secretary of the literary club.

Literature always mirrors the society. It is also a way to express human emotions. A western literator said that, “The literature is the spontaneous overflow of powerful feelings.” College magazine provides the significant atmosphere to the budding artists to grow and develop.

I have learnt many invaluable lessons of personality development throughout this entire process. For that I express my gratitude to the in-charge Principal Mr. P. A. Lashkari sir, Vice-President of the Students’ Central Committee Dr. P. M. Patel sir, ex-officios Dr. R. H. Parab sir and Dr. Y. B. Vadwala sir, all the committee members and all my dear students.

Yours Sincerely,

Mr. Vedant B. Raval

Student Secretary,

Literary club.

Profile of the College

It was the great Sardar Patel who originally floated the idea of bringing education to this rural hinterland and inspired stalwarts like Bhaikaka and Bhikakaka to start this unique educational endeavour. It was due to the missionary zeal of Bhaikaka and Bhikakaka, the founders of Charutar Vidya Mandal in 1946, when contrary to general belief that institutions of higher education can come up only in cities, the rural, dusty, under developed Vallabh Vidyanagar's first college, Vitthalbhai's Patel Mahavidyalaya came into existence in 1947.

VP & RPTP Science College was the first institution to be set up in 1947 in this township, aptly called Vidyanagar. Since then it has not looked back and has gone from strength to strength catering to the educational aspirations of students belonging to more than 40 villages around Anand and Vallabh Vidyanagar.

Today, it is one of the oldest and premier Science Colleges of Gujarat. It is named after Vitthalbhai Patel, the eminent freedom fighter who became the first Indian President of the Central Legislative Assembly during the British regime.

V P & R P T P Science College won the award of the Best Science College for three years from the Govt. of Gujarat. Many have been awarded research proposals worth Rs. 1.07 crores. This college caters to a strength of more than 1500 students offering degree courses in basic sciences in Chemistry, Physics, Microbiology, Botany, Zoology, Electronics, Mathematics, Statistics, Computer Science, Industrial Chemistry, and vocational courses like BCA, Industrial Chemistry (Vocational), and Instrumentation. Apart from this, research programmes leading to Ph D are also run in Physics, Chemistry, Microbiology, Industrial Chemistry, and Botany. We have also started 13 Add-On Courses to improve the employability of our students. We were also recognized as a College with Potential for Excellence twice and were awarded Rs 1 Crores and Rs. 1.3 crores respectively by the UGC. We were also accredited by NAAC.

Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
1	B++	80.10	2007	31-Mar-2007	31-Mar-2013
2	A	3.12	2013	23-Mar-2013	23-Mar-2018
3	A	3.13	2018	14-Feb-2018	14-Feb-2025

Vision :

To educate, empower and prepare globally competitive human resource through knowledge, employability, entrepreneurship skills by creating an environment conducive to learning and research in sciences, and critical thinking there by leading to creation of a strong institution through close affinity with its alumni.

Mission :

We dedicate ourselves to the continuation of our founders' vision of scholastically uplifting rural youth along with value education to prepare globally competitive citizens who contribute towards nation building.

Institutional Strength

- * Awarded 'A' Grade NAAC Reaccreditation Second Cycle
- * Maintained CPE status in Phase II
- * Awarded Grade 'A' by AAA, KCG, Gandhinagar
- * Qualified, experienced, dedicated and stable faculty with 69% holding a Ph D degree
- * University Recognized research centers for Ph D in Chemistry, Industrial Chemistry, Physics, Microbiology, Electronics, Botany, Zoology and ELT.
- * Major and Minor research projects worth more than Rs one crore (Approx.)
- * 160 research publications in national and International Journals
- * Very supportive management
- * ICT enabled classrooms
- * Wi-Fi campus
- * Rich automated library with INFLIBNET and use of SOUL 2 software with RFID.
- * Well-equipped laboratories
- * Active Parents & Counselling Cell
- * More than 15 Add on Courses being offered
- * No Incidence of Ragging/Sexual harassment till date.
- * Active Career & Placement Cell
- * Excellent Sports facilities with full time PTI
- * Active career counseling and Placement cell
- * PDP [Personality Development Programme] for all the students
- * Classrooms and campus under CCTV surveillance
- * Majority of faculty are members of Board of Study
- * Average teaching experience is 25 years
- * Most preferred Science College among students of Central Gujarat

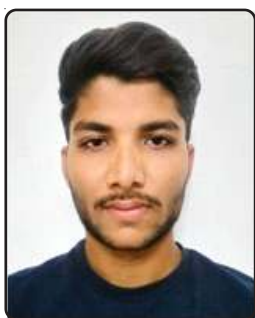
***Gold Medalist of the College
for the Year 2021-22***



DHARMENDRASINH VANRAJSINH SINDHA
DIPEE CHEMICALS PRIVATE LTD. (ANKLESHWAR)
GOLD PLATED MEDAL (INDUSTRIAL CHEMISTRY)
DR. D.A. RAVAL GOLD MEDAL
(INDUSTRIAL CHEMISTRY)



MANSIBEN MUKESHSHINH SINDHA
SMT. RAMABEN GHANSHYAMBHAI PATEL
GOLD PLATED MEDAL (BOTANY)



MOHMMEDSAKIB HABIBMIYA THAKOR
CHARUTAR VIDYA MANDAL GOLD PLATED MEDAL
(INSTRUMENTATION OR INSTRUMENTATION VOC.)



SIDDHARTHSINH DILIPSINH BODANA
DR. H. K. PATEL CHARUTAR VIDYA MANDAL
GOLD MEDAL (PHYSICS)



ANANDI LALJI MEPANI
PRIN. N. D. DESAI GOLD PLATED MEDAL
(MATHEMATICS & STATISTICS) (MATHEMATICS)



VRUTANSHI MUKESHBHAI PATEL
SMT. KAMLABEN CHANDULAL DESAI
GOLD PLATED MEDAL (CHEMISTRY)
DR. KANUBHAI CHUNIBHAI DESAI
GOLD MEDAL (CHEMISTRY)
DR. B.N.MANKAD GOLD PLATED MEDAL
(CHEMISTRY)

Vitthalbhai Patel & Rajratna P.T.Patel Science College, Vallabh Vidyanagar

STAFF LIST – 2022-2023

I/C PRINCIPAL : Mr. Piyush A. Lashkari

Physics :			
1.	Dr. P. M. Patel (HOD)	7.	Mr. L. K. Chauhan
2.	Dr. J. K. Baria	8.	Dr. Suvrajyoti Bhattacharjee
3.	Dr. A. R. Jivani	9.	Dr. Umesh Kumar Gaur
4.	Dr. T. H. Patel	10.	Dr. Mayuri Y Barot
5.	Dr. P. S. Vyas	11.	Ms. Chetna M Patel
6.	Mrs. J. N. Batra (P.T.)		
CHEMISTRY :			
1.	Dr. B. C. Dixit (HOD)	8.	Dr. Mrs. T. K. Darji
2.	Dr. H. R. Maradia	9.	Mr. A. K. Patel
3.	Dr. K. D. Patel	10.	Dr. V. B. Kataria
4.	Dr. M. M. Morekar	11.	Dr. M. J. Patel
5.	Dr. M. K. Valand	12.	Dr. Y. B. Vadwala
6.	Dr. Mrs. G. M. Patel	13.	Dr. Bhavin. C. Patel
7.	Dr. R. H. Parab	14.	Dr. Darshita.V.Vaja
INDUSTRIAL CHEMISTRY :			
1.	Dr. P. M. Patel (HOD)	3.	Mr. Nirav H Patel
2.	Dr. Bhavesh D Dhorajiya	4.	Dr. Sunil M Galani
BOTANY & ZOOLOGY :			
1.	Dr. J. P. Patel (HOD)	6.	Dr. N. B. Bhatt
2.	Ms. R. H. Solanki	7.	Dr. Rajiv Z. Bhatti
3.	Mrs. M. K. Patel	8.	Dr. Namrata R Umrigar
4.	Dr. Mrs. N. H. Brahmbhatt	9.	Dr. Nalin K Pagi
5.	Dr. B. N. Patel		
MICROBIOLOGY :			
1.	Mrs. S. K. Menon (HOD)	3.	Mr. S. A. Shaikh
2.	Mr. A. A. Shukla	4.	Ku. Vanita M. Patel
MATHEMATICS & STATISTICS :			
1.	Mr. R. P. Solanki (HOD)	5.	Dr. Shaliesh A Bhanotar
2.	Mr. H. B. Madhwani	6.	Mr. Viral V Desai
3.	Dr. Neha B Rathod	7.	Ms. Nayna G. Kalsariya
4.	Dr. Iram I Jadav	8.	Ms. Krupanshi N. Patel
ELECTRONICS :			
1.	Mr. P. A. Lashkari (HOD)	4.	Mr. K. C. Raval
2.	Mr. B. H. Lashkari	5.	Dr. (Ms.) M. H. Patel
3.	Dr. Mrs. M. Vinodkumar		
COMPUTER SCIENCE :			
1.	Mr. R. H. Sadhu (HOD)	3.	Dr. Jasmin B Parmar
2.	Dr. Jayesh J Gamar		
ENGLISH :			
1.	Dr. C. R. Gurjar (HOD)	2.	Dr. Darshanaben J. Acharya
PHYSICAL TRAINING INSTRUCTOR : Dr. J. K. Chauhan			
LIBRARY : Dr. L. M. Katara (Librarian)			

OFFICE :			
1.	Mr. J. K. Parmar	3.	Mr. R. V. Patel
2.	Mr. A. S. Patel	4.	Mr. K. R. Patel
		5.	Mr. H. J. Patel
LABORATORY ASSISTANT :			
1.	Mr. R. P. Barot	5.	Ms. J. J. Patel
2.	Mr. P. K. Panchal	6.	Mr. Hitesh H. Ramrakhiani
3.	Mr. S. B. Gilder	7.	Mr. K. A. Patel
4.	Mr. P. B. Bhoi		
ADHOC TEACHING STAFF			
1.	Ms. Vidhi H. Patel	4.	Ms. Neeluben Rathod
2.	Ms. Ami.N.Patel	5.	Mr. Dipak R. Tank
3.	Ms. Payal H. Sheth	6.	Ms. Trushna K Patel
ADHOC NON TEACHING STAFF			
1.	Mr. Rasik P. Bariya	4.	Mr. Neel G. Patel
2.	Ms. Priti C. Patel	5.	Mr. Tejas J. Patel
3.	Mr. Umang A. Patel	6.	Ms. Shreya B. Patel
ચોથા વર્ગના કર્મચારીઓની યાદી :			
૧.	વાઘેલા મંગળભાઈ શનાભાઈ	૫.	વણકર દિલીપભાઈ સિમોનભાઈ
૨.	સોલંકી જયંતિભાઈ પૂનમભાઈ	૬.	પ્રજાપતિ મહેશભાઈ બી.
૩.	માછી દિલીપભાઈ લલ્લુભાઈ	૭.	ભોઈ ચિરાગભાઈ ડી.
૪.	પાંડવ ચંદુભાઈ બાબુભાઈ		
ચોથા વર્ગના કર્મચારીઓની યાદી : (SELF FINANCE)			
1.	Mr.Rajendra S. Tirthokar	2.	Mr. Pankaj R. Baraiya
ચોથા વર્ગના કર્મચારીઓની યાદી : (ADHOC)			
1.	Mr. Suleman. B. Parmar	7.	Mr. Mahendrabhai Parmar
2.	Mr. Jagdish .S. Machhi	8.	Mr. Kailash Rathva
3.	Mr. Dinesh. S. valendra	9.	Mr. Nilesh Patel
4.	Mr. Hasmukh. D. Vagela	10.	Mr. Kalpik V.Patel
5.	Mr. Balubhai M Machhi	11.	Mr. Sunil K.Patel
6.	Mr. Rahul. S Parekh	12.	Mr. Bhavesh A.Patel



VITHALBHAI PATEL & RAJRATNA P.T.PATEL SCIENCE COLLEGE
VALLABH VIDYANAGAR

ACADEMIC YEAR - 2022 23

In all the below mentioned Committees Principal will be Chairperson.			
1. IQAC			
1.	Nikunj Bhatt (Coordinator)	2.	Dr. C. R. Gurjar
2. COUNSELLING & PARENT CELL			
1.	Dr. C. R. Gurjar (Coordinator)	4.	Miss. Chetna. M. Patel
2.	Mr. H. B. Madhwani	5.	Dr. Priyanka Thorat
3.	Dr. (Mrs.) G. M. Patel		
4.	Mr. A. A. Shukla		
3. LIBRARY ADVISORY COMMITTEE			
1.	Dr. P.M. Patel, IC (Coordinator)	2.	Mr. L. M. Katara
3.	Dr. P. M. Patel, Phy.	4.	Mr. R. P. Solanki
	(Student Central Committee - GS)		
4. WEBSITE, INTERNET & COMPUTER WORK COMMITTEE			
1.	Dr. Nikunj Bhatt (Coordinator)	2.	Dr. Jayesh J Gamar
3.	Dr. Jasmin B Parmar	4.	Mr. H. H. Ramrakhiani
5.	Payalben Sheth	6.	(Student Member)
5. RESEARCH CELL			
1.	Dr. (Mrs.) M. V. Kumar (Coordinator)	2.	Dr. P. M. Patel (I.C.)
3.	Dr. B. C. Dixit	4.	Dr. Nalin. K. Pagi
5.	Dr. Nayanaben Brahmabhatt	6.	Dr. Suvrajyoti Bhattacharjee
7.	Dr. N. B. Bhatt	8.	Dr. C. R. Gurjar
9.	Dr. J K Baria		
6. INDUSTRY INSTITUTE INTERACTION CELL (TRAINING & PLACEMENT CELL)			
1.	Dr. Vipul B. Katariya (Coordinator)	2.	Dr. Sunil M. Galani
3.	Suvrajyoti Battacharjee	4.	Dr. Umesh Gaur
7. EQUAL OPPORTUNITY CELL			
1.	Dr. Vipul. B. Kataria (Coordinator)	2.	Mr. L.M.Katara
3.	Mr. Nirav H. Patel	4.	Dr. Viral V Desai
5.	Mr. J. K. Parmar	6.	(Gender Champion Boys)
7.	(Gender Champion Girl)		
8. ALUMNI ASSOCIATION			
1.	Dr. B. C. Dixit	2.	Dr. T. H. Patel
3.	Ms. S. K. Menon	4.	Dr. J. P. Patel
5.	All the staff members who are alumni of the college		
9. WOMENS DEVELOPMENT CELL			
1.	Mrs. S.K.Menon (Coordinator)	2.	Dr. Nisha I Chauhan
3.	Dr. Iram I Jadav	4.	Dr. Mrs. Neha B. Rathod
10. EXAMINATION COMMITTEE			
1.	Dr. J. P. Patel (Coordinator)	2.	Dr. A. R. Jivani
3.	Dr. Bhavesh D Dhorajiya	4.	Mr. Anirudh Rana

11. TIME TABLE COMMITTEE			
1.	Dr. P. M. Patel (Phy) (Co ordinator)	2.	Dr. B. C. Dixit
3.	Dr. J. P. Patel	4.	Dr. C. R. Gurjar
12. STUDENT GRIEVANCE REDRESSAL COMMITTEE (Including Exam)			
1.	Dr. M. M. Morekar (Coordinator)	2.	Mr. Nirav H. Patel
3.	Mrs. S. K. Menon	4.	Dr. Nisha I Chauhan
5.	Student Member (GS)		
13. PROSPECTUS & A.Y.CALENDER COMMITTEE			
1.	Dr. A R Jivani (Coordinator)	2.	Dr. Jasmin B Parmar
3.	Dr. N. B. Bhatt	4.	Miss. Nayna G. Kalsariya
14. DISCIPLINE COMMITTEE			
1.	Dr. B N Patel (Coordinator)	2.	Dr. P S Vyas
3.	Dr. V. B. Kataria	4.	Dr. H. B. Madhvani
5.	Dr. (Ms.) M. H. Patel	6.	Dr. Namrata R Umarigar
7.	Dr. Neha Rathod	8.	Dr. Mayuri Y. Barot
9.	Ku. Vanita M. Patel	10.	Student Member (10)
15. PERSONALITY DEVELOPMENT PROGRAMME			
1.	Dr. K. D. Patel (Coordinator)	2.	Dr M K Valand
3.	Mr. K. C. Raval	4.	Dr. Bhavesh D Dhorajiya
16. INTERNAL COMPLAINT COMMITTEE (ICC)			
1.	Ms. S.K.Menon (Coordinator)	2.	Dr. G. M. Patel
3.	Dr. P. M. Patel (Physics)	4.	Dr. Nikung Bhatt
17. HOSTEL (GIRLS) & L.R			
1.	Dr. (Ms.) M. H. Patel (Coordinator)	2.	Dr. Nayanaben Brahmabhatt
3.	Dr. Namrata R. Umarigar	4.	Dr. Iram I. Jadav (LR – I)
5.	Student Member (LR – II)	6.	Student Member (LR – I)
18. ANTIRAGGING			
1.	Dr. T. H. Patel (Coordinator)	2.	Dr. Namrata R Umarigar
19. COACHING FOR ENTRY INTO SERVICES			
1.	Dr. A.R.Jivani (Coordinator)	2.	Dr. R. H. Parab
3.	Student Member	4.	Student Member
20. ADD ON CERTIFICATE COURSES			
1.	Mr. R. P. Solanki (Coordinator)	2.	Dr. Nalin K. Pagi
3.	Dr. Sunil M Galani	4.	Dr. Shailesh A. Bhanotar
21. BOYS HOSTEL			
1.	Dr. Vipul. B. Kataria (Coordinator)	2.	Mr. L. K. Chauhan
3.	Dr. Rajiv Bhatti	4.	Student Member
22. INNOVATION CLUB			
1.	Dr. Vipul. B. Kataria (Coordinator)	2.	Dr. Rajiv Bhatti
3.	Student Member	4.	Student Member

76th ANNUAL REPORT OF THE COLLEGE, YEAR : 2022-23

Total Enrolment 2021-22

Program	Semester	Total
BSc	1-6	1653
BSc IC (V)	BSc IC (V)	30
BCA	1-6	185

Examination Results 2021-22

Program	Semester	S P Uni	College
BSc	II	62.97	70.87
	IV	79.31	88.40
	VI	70.70	93.35
BCA	II	80.91	83.61
	IV	87.39	95.56
	VI	95.25	100

UNIVERSITY GOLD MEDAL WINNERS

No	Name of the Student	Award	Subject	Semester
1	Vrutanshi Mulkesbhai Patel	Smt.KamlabenChandulal Desai Gold Medal	Chemistry	V & VI
2	Dharmendrasinh vanrajsinh Sindha	Dipee Chem. Pvt Ltd(Ankleshwar Gold Plated Medal	Industrial Chemistry	V & VI
3	Anandi Lalji Mepani	Prin. N D Desai gold Plated Medal	Mathematis	V & VI
4	Mansiben Mukeshbhai Sindha	Smt.Ramaben G Patel Gold Plated Medal	Botany	V & VI
5	Vrutanshi Mulkesbhai Patel	Dr B N Mankad Gold Plated Medal	Chemistry	V & VI
6	Mohammadsakib Habibmiya Thakor	CVM Gold Plated Medal	Instrumentation	V & VI
7	Siddharthsinh Dilipsinh Bodana	Dr H K Patel Gold Medal	Physics	V & VI
8	Vrutanshi Mulkesbhai Patel	Dr.KanubhaiChunibhai Desai Gold Medal	Chemistry	V & VI
9	Dharmendrasinh Vanrajsinh Sindha	Dr D A Raval Gold Medal	Industrial Chemistry	V & VI

GOLDEN JUBILEE FUND WINNERS

Class	Seat No	Name	Subject	Total marks Obtained
FYBSc	379	BIRENKUMAR MAHOTBHAI CHAUDHARY	Overall	GPE 150
SYBSc	232	PRATIKKUMAR MANUBHAI GOHIL (Golden Jub-Fund)	Overall	GPE 149
TYBSc	454	HIRALBEN ISHWARBHAI PRAJAPATI Late Shri Himanshu Thakorbbhai Patelaward First in Electronics at T.Y.BSc.	Electronics	GPE 88
TYBSc	784	SIDDHARTHSINH DILIPSINH BODANA Late Smt. Santaben Kalidas patel award First in Physics at T.Y.BSc	Physics	GPE 86
TYBSc	413	VRUTANSHI MUKESHBHAI PATEL Shri.C.P.Narayanan award First in Chemistry (External Theory) at T.Y.BSc	Chemistry	GPE 96
TYBSc	333	HARDI MAHESHBHAI MAKWANA Late.B.N.Mankad award T.Y.BSc Chemistry student first with External & Internal marks of Theory at S.P.Uni.	Chemistry	GPE 174
TYBSc	333	HARDI MAHESHBHAI MAKWANA Late Shri.Harish Jagannath Parab, Cash Prize for Highest Marks in Chemistry at T.Y.B.Sc.	Chemistry	GPE 174
TYBSc	333	HARDI MAHESHBHAI MAKWANA Late Dr.B.N.Mankad award T.Y.BSc Chemistry student first with External & Internal marks of Theory at S.P.Uni.	Chemistry	GPE 174
TYBSc	333	HARDI MAHESHBHAI MAKWANA Shri. Mahendrabhai. J. Patel award for first poision at S.Y. & TY.BSc. aggregate External marks Theory in Chemistry.	Chemistry	GPE 134
TYBSc	333	HARDI MAHESHBHAI MAKWANA Late Shri. Harish Jagannath Parab, Cash Prize for Highest Marks in Chemistry at T.Y.B.Sc.	Chemistry	GPE 174
TYBSc	478	DHARMENDRASINH VANRAJSINH SINDHA M/S. Overseas Silk Mills Ltd.,Surat award First in Ind. Chemistry at T.Y.BSc.	Ind. Chemistry	GPE 87
TYBSc	641	MAYUR PRAVINBHAI RATHWA Late Shri Hardik Harshadbhai Patelaward First in Microbiology at T.Y.BSc.	Microbiology	GPE 78
TYBSc	610	DHWANI KAUSHAL VYAS Late Smt Minaxiben Dineshbhai Patelaward first poision at S.Y. &TY.BSc. aggregate External marks Theory in. Microbiology.	Microbiology	GPE 111
TYBSc	641	MAYUR PRAVINBHAI RATHWA Dr. S.B.Desaiaward First in Microbiology at T.Y.Bsc.	Microbiology	GPE 78

TYBSc	442	SHIVAM ILESHBHAI PATEL Meenakshi Ammal award First in Comp.Science (External Theory) T.Y.BSc	Computer Science	GPE 85
TYBSc	440	SALONI RAJENDRASINH CHAMPAVAT Smt. Hasuben Mahendrabhai Patel award for First position at S.Y.&T.Y.BSc. aggregate External Theory marks in Computer Science	Computer Science	GPE 114
TYBSc	676	ANANDI LALJI MEPANI Shri. Prakash Jashbhai Patel award First in Mathematics at T.Y.BSc.	Mathematics	GPE 96
TYBSc	215	JAY ASHOKBHAI PATEL Smt. Dharmisthaben Yashvantkumar Patel award for First position at S.Y.BSc.(SEM III & IV) External Theory marks in Mathematics	Mathematics	GPE 40
TYBSc	298	MANSIBEN MUKESHSINH SINDHA (Patel Naranbhai Govindbhai & Gordhanbhai Laljibhai Patel award First in Botany at T.Y.BSc.)	Botany	GPE 85
TYBSc	805	NIRAVKUMAR ASHOKBHAI PARMAR Late Radhakant Vishwakarma award first in Zoology at T.Y.BSc.	Zoology	GPE 92
TYBSc	805	NIRAVKUMAR ASHOKBHAI PARMAR Late Kamdar Bhanuprasad Mohanlal Bhatt & Late Jashodaben B. Bhatt, Cash Prize for first in Zoology at T.Y.B.Sc.	Zoology	GPE 92
TYBSc	7	ALINTA ANTONY CHALAKKAL (Golden Jub.Fund)	T.Y.B.C.A.	GPE 9.34
TYBSc	524	ANKITKUMAR SAVJIBHAI GADHIYA (Golden Jub.Fund)	Ind. Chemistry (voc)	GPE 77
TYBSc	584	MOHMMEDSAKIB HABIBMIYA THAKOR (Golden Jub.Fund)	INS (voc)	GPE 82

CASH PRIZES

TYBSc	117	SABBAKARIM A RASIDBHAI SHAIKH Rameshbhai P. Patel, Rinchhol / Canada Cash Prize for Highest Marks in Chemistry at S.Y.B.Sc. (SEM III & IV)	Chemistry	GPE 37
TYBSc		NEEL JIGNESHBHAI SHANISHVARA Shri. Yogeshbhai I. Patel cash prize of Rs. 700/- Sport Student	T.Y. Physics	



1) ACTIVITIES OF IQAC

1. Secured Four Star at GSIRF
2. Organized Acculturation programme for newly recruited faculty 9th December 2022
3. Organized SSIP seminar with the collaboration of S P University 9th January 2023
4. IQAC semester meeting organized 7th September 2022, 4th October 2022, and 3rd march 2022
5. New website maintenance being carried out
6. Applied for National Institutional Ranking Framework [NIRF], online data submission.
7. Prepared RUSA IDP plan part 1 and 2
8. Created learner-centric environment for quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning process through “Knowledge repository” in which few more Video lectures, power point presentations and notes were made available for various subjects taught in our College.
9. “Online feedback system” developed where students can respond on Educational and Administrative quality-related institutional processes;
10. “Online SSS [students’ satisfaction survey]” is developed through students can response on Educational and Administrative quality-related institutional processes;
11. Parents’ and Teachers’ feedback
12. Organised Exit meeting with T Y B Sc Students for personal feedback as well as to provide them opportunity to express their view about the College.
13. Development of Quality Culture in the institution through continuous suggestion and live in touch with Principal of the college.

2. STUDENTS’ ACHIEVEMENTS**Physics**

1. Ms. Riya Amrishkumar Lad secured 3rd position in Quiz Competition in Physics Vibes-2022 jointly organised by Indian Association of Physics teachers and V.P. & R.P.T.P. Science College, Vallabh Vidyanagar on 14th September, 2022.
2. Ms.Dhruviben Shah secured 1st position in PPT Competition in Physics Vibes-2022 jointly organised by Indian Association of Physics teachers and V.P. & R.P.T.P. Science College, Vallabh Vidyanagar on 14th September, 2022.
3. Ms.Dhruviben Shah secured 2nd position in PPT presentation in Intercollegiate Science Carnival-2023, jointly organised by C C Patel Community Science Centre (GUJCOST), S P University, V V Nagar and Science Club of V.P. & R.P.T.P. Science College, Vallabh Vidyanagar on on 4th & 5th January, 2023
4. Ms.Priyanshi R Goswami participated in the Online National Level Science Day Quiz organised by R & D Cell, The HNSB Ltds. Science College, Himatnagar, Gujarat and score 93% on 03/05/2022.

Chemistry

1. Mr Vedant Raval won the First Position in Intercollegiate chemistry quiz competition organized by the department, V P Science College.

Microbiology

1. Ms. Dhvani. Vyas and Mr. Mayur Rathwa topped in Microbiology at Sardar Patel University.
2. Ms. Hemangi, Ms. Charmi and Mr. Kartik Dangodra won the second prize in the Biological Sciences in the Science Carnival.
3. 1. Mr Raj Topagi – VI semester seminar competition. He won the third prize for the same 33rd state level Inter Collegiate Competition.

Mathematics

1. Kapatel Diya Ripesbhai and Alvi Moinudinbapu Mahmadasif secure a first position in Model Making (Science Carnival 2023) organised by, V.P.& R.P.T.P. Science College.
2. Thakor Mitesh Indravadanbhai secure a silver medal in Essay Competition organised by TATA.
3. Prajapati Dhruv Harshal Kumar secure a first position in PPT Presentation (Science Carnival) organised by, V.P.& R.P.T.P. Science College.
4. Pal Manish Ramkishore secure a second position in Poster Making Competition organised by, V.P.& R.P.T.P. Science College.
5. Joshi Yogi Rahulbhai secure a second position in Working Model (Science Carnival) organised by, V.P.& R.P.T.P. Science College.

INTER - COLLEGE National Mathematics Day Celebrations

1. Joshi Yogi Rahulbhai secure a first position in Poster Presentation (National Mathematics Day), organised by V.P.& R.P.T.P. Science College.
2. Joshi Yogi Rahulbhai and Malek Ishrat Irshadmiya secure a first position in Quiz Competition (National Mathematics Day) organised by V.P.& R.P.T.P. Science College.

Zoology

- * Four students secured positions at SPU list of Top 50 students.

3. IND.EDUCATIONAL TOURS / TRAINING FOR STUDENT / FIELD / PROJECTS:**Physics**

1. The department arranged industrial visit at GMM, Vitthal Udyognagar, Anand on 3rd September, 2022. About 57 students visited the industry GMM.
2. The Dept arranged academic tour of 42 SY & TY Physics students and 4 members to visit of the Institute for Plasma Research, Gandhinagar on 31st January, 2023.

Chemistry

- * The Department organized an educational tour to Samarpan industry, GIDC, V. V. Nagar and Amul Chocolate Plant, Mogar with 56 students.

Microbiology

1. Fifty students of the Semester V accompanied by Ms. S.K.Menon, Mr Aniket Shukla and Ms Ami Patel went on a study tour to Science City, Gandhinagar and Adalaj on 20.9.2022.

Industrial Chemistry

1. The Dept organized an Industrial visit to B.P. Coating Pvt. Ltd., New V. V. Nagar, Anand, Gujarat for 85 students of T.Y ICV & T. Y. ICH along with 4 faculty member, Dr. P.M. Patel, Mr. Bhavik Joshi, Dr. Sagar P. Patel & Mr. Nirav H. Patel on 9th July, 2022.
2. Third year & Second Year Traditional students along with 4 faculty member, Dr. P. M. Patel, Dr. Sunil M. Galani, Dr. Bhavesh Dhorajiya & Mr. Nirav Patel visited SICART for training of sophisticated analytical instruments on 17th of February, 2023 at Vallabh Vidhyanagar, Anand, Gujarat.

Biology

1. Hands-on-training for SYBSc students was organized on 21st September 2022 at 3-00 pm and Prof. Hetal Panchal of B R Doshi Department of Biosciences, Sardar Patel University were the Expert Faculty.
2. TYBSc Botany students visited. J. Patel Ayurveda college and Anand agriculture University under the guidance of Dr N H Brahmbhatt on 30th Jan and 2nd Feb 2023.

Electronics

1. Dr.Minaxi Vinodkumar, Mr. Bholenath Lashkari and Mr. Kamlesh Raval accompanied S.Y. and T.Y.B.Sc. students of electronics, on a one-day industrial visit to Bhaskaracharya National Institute for Space Applications and Geo-informatics (BISAG-N) and Indian Space Research Organisation (ISRO) on 7th Feb 2023.

4. PLACEMENT CELL:

- * A guest lecture was arranged by TATA strive company representative on “Cyber Security” on 28-01-2023. 100 students attended the lecture.

5. ACHIEVEMENTS OF FACULTY**Biology**

1. Dr.Rajiv Bhatti represented Gujarat NSS at the Republic Day Parade Camp at Delhi as a Contingent Leader of Gujarat state from 31st December 2022 to 31st January 2023.
2. Dr. Rajiv Bhatti was awarded the CVM Gaurav Puraskar for 2022-23 for representing Gujarat NSS at RDC Parade New.Delhi
3. Dr Nikunj Bhatt delivered an invited lecture at International Workshop organized by ISCA on 5th Aug 2016.

4. Dr Nikunj Bhatt Presidential Lecture at international Conference Organized by Rajyaguru college of science.

Computer Science

1. Dr. Jayesh Jogabhai Gamar had cleared UGC NET in Computer Science Subject.

Sports

1. Dr J K Chauhan won Silver Medal in Long Jump and 2 Bronze Medals in Badminton in the 5th All India Master Games Championship 2023 "Held at Hyderabad.
2. Dr J K Chauhan won the gold medal in Badminton singles and doubles event across Gujarat in "5th Gujarat State Master Games Championship 2022-23.

6 PH.D RELATED

1. Presently, there are 14 research guides and 15 students currently doing Ph.D.

1) Thesis submission

- * A thesis submitted at S P University of doctoral student of Dr Nikunj Bhatt.

2) Synopsis submission

- * A synopsis submitted at S P University of doctoral student of Dr Nikunj Bhatt.
- * A Student of Dr C R Gurjar has submitted her Synopsis.

3) New admission :

- * One student took admission under the supervision of Dr Nikunj Bhatt in Zoology.

7). PUBLICATION IN UGC APPROVED JOURNALS**Biology****1. Dr Nikunj Bhatt**

1. Diversity Of Order Lepidoptera (Butterflies) In Anand, Gujarat. CIB Tech Journal of Zoology ISSN: 2319-3883 Vol.11, pp.17-28.
2. A Review on Social and Economical Status of Asian Weaver Ants (Oecophyllasmaragdina), International Journal of Zoological Investigations Vol. 8, No. 1, 531-536 (2022).

2. Dr Naina Brahmbhatt

1. Optimization study of lead biosorption using Sargassum johnstonii biomass, International Journal of Botany Studies, **2455- 541X, Volume 7, Issue 1, 2022 (RJIF:8)**
2. The Diversity Of Marine Seaweeds From Coastal Zones Of Saurashtra, International Journal of Botany Studies, 2455- 541X, Volume 8, Issue 1, 2023 (RJIF:8)

Physics**1) Dr U K Gaur**

1. 2D/2D heterojunction of graphitic carbon nitride and hexagonal boron nitride nanosheets mediated electrochemical detection of hazardous hydroquinone with high selectivity and sensitivity, Journal of Environmental Chemical Engineering, 10 (6), 2022, 108717. (IF: 7.968)

2. Enzyme free direct detection of histamine in peanuts using novel α -MnOOH-W3O10 nanostructures modified electrode, *New Journal of Chemistry*, 47, 2023, 3276. (IF: 3.591)
3. 2D/2D Nitrogen-Doped Graphitic Carbon Nitride/Cobalt Sulfide nanostructures for fast Photodegradation of Methylene Blue Dye and real industrial sewage effluents, *Environmental Science: Advances* (Accepted Manuscript) 2023

Industrial Chemistry

1. Review entitled "Dendrimer as a versatile platform for biomedical application: A review" Accepted in the journal of the Indian chemical society by Elsevier Publication. (Available Online 7th May 2022), (Vol.99(7), July 2022, 100516) <https://doi.org/10.1016/j.jics.2022.100516>
2. Review entitled "Synthetic strategy of dendrimer: A review" Accepted in the journal of the Indian chemical society by Elsevier Publication. (Available Online 7th May 2022), (Vol.99 (7), July 2022, 100514) <https://doi.org/10.1016/j.jics.2022.100514>
3. Research entitled "Lead and copper metal ion uptake by a novel nanoscale hydroxy-terminated dendritic macromolecules". Accepted in the journal of the Indian chemical society by Elsevier Publication. Available Online 8th September 2022), (Vol.99 (22), september 2022, 100717) <https://doi.org/10.1016/j.jics.2022.100717>
4. The research entitled "Novel nanostructured dendrimer based on 1,3-bis(4,6-dichloro-1,3,5-triazine-2-yl) urea as an excellent adsorbent for Pb^{2+} , Ni^{2+} , Co^{2+} and Zn^{2+} metal ions" published in the Journal of the Indian Chemical Society by Elsevier publication. (Available online on 10th October 2022), Vol. 99(100763) (2022) <https://doi.org/10.1016/j.jics.2022.100763>
5. The research entitled "Application of novel nanoscale hydroxyterminated dendrimer for Cu^{+2} and Cd^{+2} ion uptake" published in the Chemical Paper journal by Springer publication. (Published online on 27th October 2022), (2022) <https://doi.org/10.1007/s11696-022-02541-1>
6. Research entitled "Highly efficient novel nanostructured dendritic macromolecules for remediation of aquatic heavy metal ions" Accepted in the inorganic chemistry communication by Elsevier Publication. (Available Online 31st December 2022) (Vol.148, 2023, 110381) <https://doi.org/10.1016/j.inoche.2022.110381>

Electronics

1. Electronic Excitations and Low-Energy Electron-Induced Scattering Studies of Acrylonitrile (CH_2CHCN) Sagar Vadhel, Tejas Jani, Aparna Shastri, Vinodkumar Pothodichackra, and Minaxi Vinodkumar J. *Phys. Chem. A* 2022, 126, 44, 8136–8155 <https://doi.org/10.1021/acs.jpca.2c05186>
2. Electron impact inelastic molecular processes for deuterated compounds Smruti Parikh, Minaxi Vinodkumar, Chetan Limbachiya, *Chemical Physics*, 565, 2023, 111766 <https://doi.org/10.1016/j.chemphys.2022.111766>
3. Theoretical investigations of the electronic states and electron scattering cross-sections of thiazole (C_3H_3NS)

Tejas Jani, Aparna Shastri, P.C. Vinodkumar, Chetan Limbachiya, Minaxi Vinodkumar
Journal of Electron Spectroscopy and Related Phenomena, 260, 2022, 147254, 0368-2048 <https://doi.org/10.1016/j.elspec.2022.147254>

4. Dynamics of electron collision with potential biofuel: N-butanol
Nirali Bhavsar, Tejas Jani, P.C. Vinodkumar, Chetan Limbachiya, Minaxi Vinodkumar
Radiation Physics and Chemistry, 202, 2023, 110504, 0969-806X,
<https://doi.org/10.1016/j.radphyschem.2022.110504>

Mathematics

1. Dr. Shailesh A. Bhanotar had published a paper entitled “On multiple primitive Pythagorean triplets” in Scopus Indexed journal “Palestine Journal of Mathematics” in 2022 with H-index 3.
2. Dr. Shailesh A. Bhanotar had published a paper entitled “Existence and uniqueness results for fractional boundary value problems with multiple orders of fractional derivatives and integrals” in Chaos, Solitons & Fractals (Scopus indexed/SCIE) in 2022.
3. Dr. Shailesh Bhanotar had published a paper entitled “On some important Sequences and their Relations with Pythagorean-Fermat Triplets” Journal of Advanced Engineering and Computation (Asian Citation Indexed) (1859-2244) in 2022.

English

1. Dr Charudutt Gurjar Origin, Development and Features of Legal English. ELT Quarterly ISSN: 0975-0258, An International Peer-Reviewed Journal Volume: 21 Issue: 1 March - 2022.

8. BOOKS PUBLISHED

Physics

1. Dr P M Patel published 2 books ‘College Physics-1 Atul Prakashan, ISBN No: 978-93-85138-15-7, and College Physics-2, Atul Prakashan, ISBN No: 978-93-85173-62-2.

9. CHAPTERS PUBLISHED : NIL.

10. PAPER/POSTER PRESENTATIONS BY FACULTY

Industrial Chemistry

1. Poster presented in National Conference on emerging trends and innovative research in chemical science (NCETIRCE-2023) at Shri Govind Guru University, Godhra sponsored by GUJCOST on 11th January 2023. Poster entitled : Application of synthesized nanostructured dendrimer for metal ion uptake and solubility enhancement.

Electronics

Three poster presented at National Conference on Atomic and Molecular Physics (NCAMP)-23 organised by IIST, Thiruvananthapuram, Kerala.

1. Resonance and dissociative electron attachment study for acrylonitrile, Sagar Vadhel, P. C. Vinodkumar and Minaxi Vinodkumar.

2. Isomeric effects on the electron impact scattering data for different five embered heterocyclic ring molecules, Tejas Jani, P.C.Vinodkumar, Chetan Limbachiya, Minaxi Vinodkumar
3. Dynamics of electron collision with potential biofuel: n-butanol, N. Bhavsar, P.C.Vinodkumar, C. Limbachiya, M. Vinodkumar.

Mathematics

1. Kalsariya Nayna Govindbhai has presented a paper in IWM (Indian Women and Mathematics) National level conference in ISSER Pune at 27-29 Dec. 2022.

Computer Science

1. Dr. Jasmin B Parmar Presented Paper “Unsupervised Machine learning Approach in Character Recognition” in National Conference at Saurashtra University, Rajkot.

Biology

1. Dr Nikunj Bhatt presented paper at At international Conference Organized by ISCA.

English

1. Dr C R Gurjar presented a paper titled ‘English as a unifying language in India’ in the One Day National Seminar on Social Harmony and Nation Building ‘organized by Dr baba Saheb Ambedkar Chair, Sardar Patel University. V V Nagar on 20/1/2023.
2. Dr Darshana Acharya presented a paper titled role of Literature for Social harmony in India’ in the One Day National Seminar on Social Harmony and Nation Building’.
3. Organized by Dr baba Saheb Ambedkar Chair, Sardar Patel University. V V Nagar on 20/1/2023.

11. REVIEW OF RESEARCH PAPERS / PHD THESIS**Biology****Dr.N H Brahmbhatt**

1. Journal of Agriculture and Ecology Research International - Physico-Chemical Properties of Soils In Flooded And Upland Forest Areas Of Yola-North And Yola-South Local Government Areas, Adamawa State, Nigeria. Review in Jan-2023.
2. International Journal of Plant & Soil Science - Response of Wheat Crop to Different Moisture Regimes and Sources of Nitrogen. Review in Jan-2023.
3. International Journal of Plant & Soil Science - To study the effect of Potassium and sulfur on growth and yield of Black gram (*Vigna mungo* L.). Review in April – 2022.
4. Journal of Experimental Agriculture International - Potassium forms in Brown Sarson growing soils in District Kupwara, Kashmir. Review in April – 2022.
5. International Journal of Plant & Soil Science - Study of Interaction Effects Of Various Levels Of Phosphorus And Varieties On Growth And Yield Of Chickpea (*Cicer Arietinum* L.). Review in Feb – 2022.

6. International Journal of Plant & Soil Science - Effect Of Zn And Fe Enriched Fym On Yield, Nutrient Content And Uptake By Cowpea Irrigated With Sodic Water. Review in Jan- 2022.

11. WORKSHOPS/SEMINARS ORGANIZED

Physics

1. The department in collaboration with Indian Association of Physics Teachers, organized Physics Vibes-2022 on 14th September, 2022. Total 100 students from V.P. Science College and other Colleges had participated in this event

Industrial Chemistry

1. The skill development one day workshop (Industrial Management & Economics) was organized on 23rd December 2023. During this work shop Prof. Raju M. Rathod-talked on BOOK REVIEW & COMPANY VISIT REVIEW and Prof. Mitesh Jayswal –Talked on Business Plan. Moreover Mr. Punit, Miss. Garima & Miss. Trinkal present a presentation on small scale Business Plan.

Computer Science & BCA

1. Organised one day Workshop on “ANIMATION, VFX & GAMING” on 30/01/2023.

12. FACULTY AS GUEST SPEAKERS/VISITING FACULTY/RESOURCE PERSON

Biology

1. Dr.Nalin Pagi was invited as resource person in hydroponics by C.C.PATEL COMMUNITY SCIENCE CENTRE ,SP UNIVERSITY DATED 2ND JAN TO 5TH JAN2023.
2. Dr. Nalin Pagi was invited for an expert talk by Pramukh Swami Science and H.D.Patel Arts college in One Day Seminar on: Hydroponics Farming: Recent trade in Agri-preneurship dated 15th February 2023.
3. Dr. Namrata Umrigar delivered a guest lecture on ‘Wetland and its conservation’ on the occasion of World Wetland Day-2nd February at Champagne Primary School, Halol–Panchmahal on 6th Feb 2023.
4. Dr. Namrata Umrigar also invited for demonstration of 12th science biology practical by LD High school, Sachin, Surat on 13th Feb 2023.
5. Dr.N H Brahmabhatt delivered a talk entitled “ First step towards the success” on 25/11/2022, Friday. At BHAILALBHAI & BHIKHABHAI INSTITUTE OF Technology, Vallabh Vidyanagar. (BBIT POLY TECHNIC)
6. Dr Nikunj Bhatt was invited as a chief guest at shajanand high school annual function visnagar.

English

1. Dr C R Gurjar delivered a Guest talk at Anand Law College on Personality Development on Feb 9 2023.

2. Dr C R Gurjar delivered a Guest Talk at SPEC, Vadtal Road, on the Topic 'Self Awareness for Future Career'.
3. Dr Darshana Acharya is a visiting Faculty at A R College of Pharmacy, Vallabh Vidyanagar for Semester I and Semester II.

Electronics**Dr. Minaxi Vinodkumar**

1. Workshop on Physics with Trapped Charged Particles (WPTCP-2022) Held on 27-28, Oct. 2022, organised by Inter-University Accelerator Centre, New Delhi, India.
2. National Conference on Atomic and Molecular Physics (NCAMP-23) held between 20-23rd Feb 2023 organised by IIST, Thiruvananthapuram, Kerala.

SPORTS

1. PTI Dr J K Chauhan Served as Guest Lecturer in Patel College of Physical Education Mogri College.

13. WORKSHOPS/SEMINARS ATTENDED**Chemistry**

1. Dr. Y. B. Vadwala conducted workshop on start up programme for domestic cleaning chemicals' on 27/03/23 at by Shri R K Parikh Arts and Science College, Petlad.
2. Dr. M. J. Patel attended refresher course at Saurashtra University Rajkot and secured A grade.
3. Dr. Vipul Kataria attended refresher course at Saurashtra University, Rajkot and secured A grade.

Biology

1. Dr. N.H Brahmbhatt attended a National Virtual Seminar on "Nanotechnology: Chemistry and Biology at the Interface of 21st century" organized by Ashok & Rita Patel Institute of Integrated study & Research In Biotechnology and Allied Sciences (ARIBAS) affiliated with the CVM University on 4th March 2022.

Electronics

1. Workshop attended by Dr. Minaxi Vinodkumar and Sagar Vadhel Workshop on Physics with Trapped Charged Particles (WPTCP-2022) held on 27-28, Oct. 2022 Organised by Inter-University Accelerator Centre, New Delhi, India.
2. National Conference on Atomic and Molecular Physics (NCAMP-23) held between 20-23rd Feb 2023 organised by IIST, Thiruvananthapuram, Kerala.

Mathematics

1. Mr. Rajesh P. Solanki had attended State Level Seminar of Critical Thinking Skills on date 5th September, 2022.
2. Kalsariya Nayna Govindbhai had attended National Level Conference at ISSER Pune, 27-29 Dec, 2022.

3. Dr. Shailesh Bhanotar had attended State Level Seminar of Critical Thinking Skills on date 5th September, 2022.

14. FACULTY DEVELOPMENT PROGRAMMES: NIL

15. GUEST TALKS ARRANGED

Sr.No	Guest Faculty	Subject	Date
1	Dr Yogesh Bholia, Department of Applied Chemistry, Sardar Patel University, V. V. Nagar.	Preparation of NET exam	19-7-22
2	Dr Sanjay Panjabi, CHRUSAT, Changa.	Chemical kinetics and numerical problems	28-7-22
3	Dr Rohit Dave, ISTAR, V V Nagar.	Future perspective of Industrial chemistry	3-1-23
4	Dr Amit Thummar, Polymer science, ISTAR, V V Nagar.	Application of Polymer Science and Technology	5-1-23
5	Dr Kinnari Bhatt, ISTAR, V V Nagar.	Medicinal	1-2-23
6	Dr Shailesh H. Shah, Patel J.B.R. & J.D.K Dawolvala Science College, Borsad.	Chemistry-antibiotics Synthetic dyes, Explosive and pesticides	4-2-23
7	Dr Jayesh R Patel, M. B Patel Science College, Anand.	Chemistry of Alkaloids	9-2-23

Physics

1. Ms S P Shukla, Physics Alumni & Ex-faculty, Advanced Placement Physics, Geospatial Technology, Forensic Science teacher at Frederica Academy, St. Simon's Island, Georgia USA, delivered talk on "Challenges and Opportunities in Physics Education in USA" ... on 23rd June, 2022.
2. Prof P C Vinodkumar, Department of Physics, CHARUSAT University, Changa, delivered a talk on "Symmetry in Physics and its implication" on 2nd September, 2022.
3. Prof Sunil Chaki, Department of Physics, Sardar Patel University, Vallabh Vidyanagar, delivered talk on "Physics Learning Through Experiments" on 9th September, 2022.

Industrial Chemistry

- * The guest lecture on the topic "Our Alumni our Pride" an Alumni talk series- 2022, was organized on 23rd July- 2022, Delivered by Dr. Tejas Shah, CEO USHA PAINTS, Vithal Udhyog nagar, Anand, Gujarat, India.

Microbiology

1. Dr H. N. Patel delivered a guest lecture on The topic 'Enzymology on 31.8.2022
2. Dr. Shilpa A. Jani delivered a guest lecture on Virology on 12.09.2022.
3. Ms. Nehal Purohit, managing partner of Amic Consultants delivered a guest lecture about Opportunities abroad to the students on 6.9.2022.

4. Dr. Pankaj Trivedi, Professor of general pathology and laboratory medicine in Sapienza University, Rome and Dr Eleni Anastasiadou, Assistant professor at Sapienza University, Rome delivered a talk on oncogenic viruses and regulatory role of noncoding RNAs in cancer on 29.12.2022.
5. Dr Arif Khan of ARIBAS delivered an inspirational talk on competitive examination on 30.1.23

Electronics

1. Prof. Shahera S. Patel's invited talk was arranged by electronics department on "AVENUES OF ELECTRONICS" on 23rd Sep 2022 for students of electronics.

Mathematics

1. Prof. Piyush Chandra invited as a spiker, he is from IIT Kanpur, topic of the talk was "Application of Mathematics" on 11/07/2022.
2. Dr. Jay Mehta invited as a spiker, he is from Department of Mathematics, SP University. Vallabh Vidya Nagar, topic of the talk was "Cryptography" on 22/12/2022.
3. Dr. Kailash Patil invited as a spiker, he is from Department of Mathematics, Dharmsinh Desai University, Nadiad, topic of the talk was "Counting Principal" on 22/12/2022.
4. Dr. Brajesh Kumar Jha invited as a spiker, he is from PDEU, Gandhinagar, topic of the talk was "Real life Application of Mathematics" on 27/1/2023

Computer Science & BCA

1. Expert talk on "Oracle APEX (22.1)" by DigvijaysinhVirpura on 10/09/2022.
2. Expert talk on "Cloud Computing" by Sachin Goswami from IANT, VVNagar, Branch on 13/09/2022.

16. EVENTS ORGANIZED BY THE DEPARTMENT (OTHER THAN GUEST TALKS)**Chemistry**

1. Intercollegiate Chemistry Quiz competition was organized on 7-2-23 by the department. 66 students of various colleges participated.
2. Dr K D Patel, conducted a Personality Development Programme, on 16 February, 2023 Personality Development Programme for Sem 4 and Sem 6 students, in which Dr Dipal Patel Assistant Professor, SEMCOM, Vallabh Vidyanagar, delivered lecture on Team Building and Leadership.

Biology

1. ZooFest 2023 organized by students of Zoology on 15th February 2023.
2. Botany students under the guidance of Dr Nalin Pagi invited to have stall of hydroponics on the eve of Millet food festival organized by Post Graduate Department of Home Science, Sardar Patel University, V V Nagar.

Industrial Chemistry

1. Arrange add on Course for 32 students in Industrial Chemistry Department with the subject of "Separation Techniques: Chromatography".

2. Orientation Program was organized on 13th July 2022 for First Year students in the department alumni of Industrial Chemistry Department, V.P. & R.P.T.P. Science College. The Chief Guest Dr. Dipak K. Raval (Alumina), H.O.D. Department of Chemistry, Sardar Patel University, Mr. Sunil Joshi & Mr. Jaimin Trivedi from B.P. Coating and incharge Principal Mr. Piyush Lashkari.

Electronics

1. 'ELECTROFEST-2022' was organised by electronics department on 23rd Sep. 2022, which included Quiz and Poster presentations competitions.

Mathematics

1. Department of Mathematics organised the National Mathematics Day celebration on date 22nd December 2022 the number of participants are 130. It was inter college event.

Computer Science & BCA

1. The departments jointly organised "Compu-Carnival 2022-23" having 2 events
1. Logic Test and 2. Poster Presentation on 11/01/2023. Total 157 students of Various colleges participated.

17) STUDENTS 'PARTICIPATION IN VARIOUS COMPETITIONS/ SEMINARS.**Chemistry**

1. Mr Vedant Raval and Mr Pradip Vasvani participated in Seminar (PCAIS-2023)
2. Vahora Sania Yasinkumar participated in Intercollegiate Chemistry Quiz Competition organized by the Department.

Biology

1. TY Botany and zoology students participated in hands on training on apiculture organized by Department of Biosciences on 29th September 2022.
2. TY botany students (Jay, Sakshi, Ekta) and participated at Science Carnival organized by our college on 4th and 5th Jan 2023 and received First prize under the guidance of Dr. Nalin Pagi.
3. TY Botany student (Sakshi, Naisargi and Ekta) participated at Science Manthan 2023 at CHARUSAT, Changa, and received third prize under the guidance of Dr Nalin Pagi.

Physics

1. Ms Riya Amrishkumar Lad & Ms Pratimaben Sureshbhai Tadvi participated in Essay Competition in Physics Vibes-2022 jointly organised by Indian Association of Physics teachers and V.P. & R.P.T.P. Science College, Vallabh Vidyanagar on 14th September, 2022.
2. Ms Riya Amrishkumar Lad participated in PPT presentation & Quiz Competition in Intercollegiate Science Carnival-2023, jointly organised by C C Patel Community Science Centre (GUJCOST), S P University, V V Nagar and Science Club of V.P. & R.P.T.P. Science College, Vallabh Vidyanagar on 4th & 5th January, 2023.

3. Ms Pratimaben Sureshbhai Tadvī actively participated in an e-quiz ROAD SAFETY AWARENESS organised by NSS UNIT of V.P. & R.P.T.P. Science College, Vallabh Vidyanagar (NSS).
4. Ms Pratimaben Sureshbhai Tadvī participated in Science Quiz Competition in Intercollegiate Science Carnival-2023, jointly organised by C C Patel Community Science Centre (GUJCOST), S P University, V V Nagar and Science Club of V.P. & R.P.T.P. Science College, Vallabh Vidyanagar on 4th & 5th January, 2023.
5. Ms Priyanshi R Goswami participated in Vasundhara 22 Online Quiz 4 of 4 Organised by MUSEUM, S P University, V V Nagar on world environment day on 05/05/2022.
6. Ms Priyanshi R Goswami & Ms Vrundakumari Ishwarbhai Patel participated in Essay & Physics Quiz competition in Physics Vibes-2022 jointly organised by Indian Association of Physics teachers and V.P. & R.P.T.P. Science College, Vallabh Vidyanagar on 14th September, 2022.

Industrial Chemistry

1. Two T.Y. B. Sc industrial chemistry students Jankiben Natwarbhai Panchal & Rabari Anjali Bhalabhai were participated in “Science Fair” at Christian College of Education on 28th February 2023.

Microbiology

1. The Students participated in the science carnival and prepared the following models.
2. Mr. Deep Parekh, Mr Jay Shah – biogas plant model, Mr Raj Topagi, Ms. Sanjana Panjabi, Ms. Vrushali – lytic cycle model, Ms. Helly Patel, Ms Zeba Ghanchi, Ms. Vinita Dhanani- hologram model, Ms.Hemangi, Ms Charmi, Mr Kartik Dangodara – fermentation unit model.
3. Ms Helly Patel of VI semester attended a One Week Workshop, sponsored by GSBTM and DST on ‘Molecular and Analytical Based Techniques’ in A.N.Patel college, Anand from 25.1.23 to 1.2.23.
4. 33rd State Level Seminar Competition: Thirty-one students of the Microbiology department accompanied by staff members Ms S.K. Menon, Ms Ami Patel Mr Jagdish Macchhi undertook a trip to Visnagar on 19.2.2023 for the 33rd State Level Inter Collegiate Competition. The participants were Mr Raj Topagi won the third prize in VI semester seminar competition. Ms Hemangi Bhoi- Extempore Speech Competition, Ms Ayushi Patel- Sciencetoon Competition, Ms Vrushali Patel- Concept Mapping Event, Ms Zeba Ghanchi- Article Writing Event, Ms Tisha Patel.

Computer Science

1. Mr. Het Prajapati of TY CS participated in “Code Master” Brain Tech event at C. P. PATEL & F H SHAH COMMERCE COLLEGE, ANAND on 31/01/2023.

18. MISCELLANEOUS :**Zoology :**

1. Dr Nikunj Bhatt has instituted a cash prize of Rs 1500/- for college tops in the subject of Zoology in honour of his late parents from this year.
2. Dr Nikunj Bhatt has also instituted a Gold-Plated Medal in honour of his late parents for University Toppers in the subject of zoology from this year.

Chemistry

1. Dr. B. C. Dixit worked as a Judge in Seminar presentation by students competition on 01 / 03 / 23 at by Shri R K Parikh Arts and Science College, Petlad.
2. Dr. K. D. Patel worked as a Judge in Scientific oral presentation competition on 27 / 08 / 22 at J & J Science College, Nadiad.
3. Dr B C dixit attended ON LINE BOS meeting of the Science Faculty in Ganpat University.

English

1. Dr C R Gurjar was the external Expert of Term End Presentation of PhD in ELT in CVM University, V V Nagar.
2. Dr C R Gurjar was invited to be the Subject expert for Interviews of Adhyapak Sahayak in English by BJVM, V V Nagar and J & J Science College, Nadiad.
3. The English Dept facilitated 229 Students to appear for Cambridge Placement Test conducted by SCOPE, Gandhinagar.

SPORTS :**Dr J K Chauhan****As a Chief Guest**

- * At the Annual Sports Day
- * At Sahajanand International School Sojitra.
- * At IB Patel Secondary School (Grant in Ed), Vallabh Vidyanagar.
- * At Sardar Patel Education Campus (SPEC) Bakrol College. And the players could say two words about the importance of sports.
- * At the annual prize distribution function of Charotar English Medium School.

As a convener at

- * Sardar Patel University's Inter College Football Brothers Competition during the current year 2022-23.
- * Sardar Patel University Inter College Kabaddi Brothers and Sisters Competition during the current year 2022-23.
- * Chief Convener of Running Department of Inter College Athletics Championship Competition of Sardar Patel University during current year 2022-23.

- * The Chief Jury in Sardar Patel University Inter College Cross Country Brothers and Sisters competition during current year 2022-23.
- * Served as a member of the Discipline Committee in the Inter College Youth Festival Competition of Sardar Patel University during the current year 2022-23.

Conducted camp

- * 21-day coaching practice camp. Sardar Patel University's West Zone football (Boys)
- * Sardar Patel University's West Zone Kabaddi Sisters Team conducted a coaching practice camp.

Worked as a member of the Selection Committee

- * For the final team of West Zone Sisters' Team of Sardar Patel University
- * To select team for Sardar Patel University's West Zone Football brothers' team

As a Coach

- * Worked as Coach cum Manager of Sardar Patel University's West Zone Football brothers' team Jabalpur (MP).
- * Sardar Patel University's West Zone Kabaddi Women's Team Coach to Amaravati Maharashtra with the team.

20. APPOINTMENTS OF ADHYAPAK SAHAYAK IN THE DEPTS. WITH JOINING DATE

No	Name	Dept	Joining Date
1	Dr. S. Bhattacharjee	Physics Dept	20/06/2022
2	Dr. U. K. Gaur	Physics Dept	20/06/2022
3	Dr. Mayuri Y Barot	Physics Dept	25/07/2022
4	Ms. Chetana M Patel	Physics Dept	27/07/2022
5	Dr. Bhavin C Patel	Chemistry	01/10/2022
6	Dr. Darshita V Vaja	Chemistry	19/12/2022
7	Dr. Bhaveshkumar Dayalal Dhorajiya	Ind. Chemistry	02/06/2022
8	Dr. Nirav Hiteshbhai Patel	Ind. Chemistry	04/06/2022
9	Dr. Sunil Manjibhai Galani	Ind. Chemistry	06/06/2022
10	Dr. Jayesh J Gamar	Comp. Science	16/06/2022
11	Dr. Jasmin B Parmar	Comp Science	16/06/2022
12	Dr. Darshan Acharya	English	18/10.2022
13	Dr. Neha Bharatbhai Rathod	Mathematics	24/06/2022
14	Dr. Iram Iqbalbhai Jadav	Mathematics	02/08/2022
15	Dr. Shaileshkumar Amrutbhai	Mathematics	02/08/2022
16	Mr. Viralkumar Venilal Desai	Mathematics	05/08/2022
17	Kalsariya Nayna Govindbhai	Mathematics	13/09/2022
18	Patel Krupanshibahen Narendrabhai	Mathematics	27/09/2022
19	Dr. Namrata Umrigar	Biology	08/06/2022
20	Dr. Nalin Pagi	Biology	08/08/2022

NAME OF EX-OFFICIO AND STUDENT SECRETARIES AT VARIOUS CLUBS.

MR. P.A. LASKARI (PRESIDENT) DR. P M PATEL (VICE-PRESIDENT)
DR. NIKUNJBHAI BHATT (IQAC COORDINATOR)

PORTFOLIO	NAME OF EX-OFFICIO	NAME OF STUDENT SECRETARIES
CULTURAL CLUB FINE ARTS CLUB DEBATE CLUB NATURE CLUB	MR. K. C. RAVAL MR. L. K. CHAUHAN DR. C. R. GURJAR MS. M. K. PATEL	SACHIN M MACHHI, DONA VIEYRA BHOI HEMANGI PRIYA GIRI NUPUR SHAH HELLY J PATEL DANGODARA KARTIK VEDANT B. RAVAL
LITERARY CLUB	DR. R. H. PARAB DR. YOGESH VADWALA	
SCIENCE CLUB SPORTS CLUB NCC	DR. T. H. PATEL DR. J. K. CHAUHAN MAJ. DR. M. M. MOREKAR	DEVANSHI MEHTA, PREET DALAL NEEL J. S. KHUSHI VALAND CHANDU JUNWAL KOMAL DHOLARIYA
NSS	DR. RAJIV BHATTI MR. A. K. PATEL	MILAN GOUSWAMI SANJANA PANJABI

STUDENTS' CENTRAL COMMITTEE 2022- 23 : LIST OF LR's & CR's

Sr. No.	Name of Student	Class-Div & Roll No	Position	Representing
1	Kajal A Nayak	FY-B-723	LR	ALL FY Girls
2	Devhuti Chavda	FY-A-19	CR	A Div
3	Arya M Barot	FY-B-238	CR	B Div
4	Khushi R Mistry	FY-C-268	CR	C Div
5	Smit N Patel	FY-488	CR	D Div
6	Srushti V Solanki	FY-E-612	CR	E Div
	S Y B Sc			
1	Shivani J Pandey	IC-399	LR	SY GIRLS
2	Vipul M Mali	Micro-503	CR	SY-MIC/BOT/ZOO
3	Biren M Chaudhary	Chem-14	CR	SY-CHE/IC
4	Preet A Dalal	Phy-168	CR	SY-PH/MS/CS/EL/ST
5	Pinak H G	ICV-653	CR	SY IC(V)/INS
	T Y B Sc			
1	Saniya Yasinkumar V	Chem-109	LR	TY-GIRLS
2	Pratikkumar M Gohil	Maths-179	CR	TY-PH/MAT/CS/EL
	Jeban Maksud Natha	Phy-265		
3	Parvezali I Saiyad	Chem-82	CR	TY-CH/IC
4	Mansi P Patel	Zoo-518	CR	TY-MI/BIO/ZOO
5	Sejanbhai S Vahora	ICV-576	CR	TY-ICV/INS
	BCA			
6	Pritesh A Patel	TY BCA-38	CR	FY/SY/TY BCA

REPORT OF STUDENT CENTRAL COMMITTEE YEAR : 2022-2023**President : Mr. P. A. Lashkari****Vice President : Dr. P. M. Patel****1. SCIENCE CLUB****Ex-Officio : Dr. Tarun H. Patel****Student Secretary : Devanshi Mehta
Preet Dalal****Inter college Science Carnival 2023**

In order to explore the importance of Basic Sciences in the Modern technologies and to motivate the students towards more interactive learning through their own efforts, the Science Club of V.P. & R.P.T.P. Science College, Vallabh Vidyanagar in association with C. C. Patel Community Science Centre (S. P. University) organized a two day “Inter college Science Carnival 2023” on 4th & 5th January 2023 at the V.P. & R.P.T.P. Science College, Vallabh Vidyanagar. The Carnival includes competitions for Power Point Presentation, Working Model Presentation on various topics and a Science Quiz among the students of nearby science colleges of S. P. University. The Carnival was inaugural by Er. Bhikhubhai Patel, Chairman of CVM and blessed by Dr. S. G. Patel. Secretary of CVM, Dr. R.C. Talati Joint Secretary of CVM Vallabh Vidyanagar in the presence of Students, Principals and faculties of the various colleges.

Following events were conducted in the Science Carnival 2023.

Sr.No	Event Name	Date	No. Of Participants
1	Science Carnival	04/01/2023 To 05/01/2023	98
	Intercollegiate Power Point Presentation Competition: A. 5G Technology and Future B. My Favorite Indian Scientist C. Future of Nanotechnology in India	-do-	18
	Intercollegiate Working Model Presentation Competition: No. of Working Model presented: 32 A. Physical Sciences: Physics/Elect/EC/Inst. B. Chem. Sciences :Chemistry/ Ind. Chemistry C. Bio Sciences: Micro/ Bot /Zoo /Biotech etc. D. Math. Sciences: Math/Stat/Com. Sc.	-do-	80
2	General Science Quiz competition	-do-	165



Category A: Physical Sciences		
Rank	Name of Winner	College
1	Harshkumar M. Vaghela Mahipalsinh L. Patel Mitul R. Rana	MB Patel Sc. College Anand
2	Shaunak Makwana Ruturajsinh Zala	VP& RPTPT Sc. College V.V.Nagar
Category B: Chemical Sciences		
Rank	Name of Winner	College
1	Manav Soni Manoj Chaudhari Parth Panchal	VP& RPTPT Sc. College V.V.Nagar
2	Janki N. Panchal Hirva J. Parmar	VP& RPTPT Sc. College V.V.Nagar
Category C: Biological Sciences		
Rank	Name of Winner	College
1	Sakshi P. Vanparia Ekta D. Savaliya Jay P. Dudhatra	VP& RPTPT Sc. College V.V.Nagar
2	Kartik D. Dangodara Charmi J. Rohit Hemangi J. Bhoi	VP& RPTPT Sc. College V.V.Nagar
Category D: Mathematical Sciences		
Rank	Name of Winner	College
1	Diya R. Ka. Patel Alvi M.N.	VP& RPTPT Sc. College V.V.Nagar
2	Yogi R. Joshi Charmi M. Patel Shivani U. Chauhan	VP& RPTPT Sc. College V.V.Nagar

2. General Science Quiz:

General Science Quiz:		
Rank	Name of Winner	College
1	Birenkumar M. Chaudhary Darshil G. Vagadiya Tanvi Navinbhai Sedaliya	VP& RPTPT Sc. College V.V.Nagar
2	Krishna Arjun Achari Dhyey Bhatt Jayrajsinh A. Chauhan	VP& RPTPT Sc. College V.V.Nagar

2. FINE ARTS CLUB

Ex-Officio : Mr. L K Chauhan

Student Secretary: Ms. Hemangi Bhoi

Sr. No.	Event		No. Of Participants
1	Navaratri Celebration	1. Aarti Thali Decoration Competition 2. Poster making competition 3. ART piece making	04 05 05
3	Sardar Patel Inter Collegiate Youth Festival	1. On the spot painting 2. Collage 3. Poster making competition 4. Clay modeling 5. Rangoli 6. Cartooning 7. Spot Photography	01 01 01 01 01 01 01

3. CULTURAL CLUB

Ex-Officio : Mr. Kamlesh Raval

Student Secretary : Mr. SACHIN MACHHI
Ms. DONA VIEYRA

During the academic year 2022-2023 the club has motivated the students of the institute to participate in various cultural events organized by Our College as well as other educational and non government organizations.

Independence Day Celebration (15th August 2022):-

- * In association with NCC Club and student's central committee the club has organized Independent day celebration with flag hoisting followed by cultural presentations from the students including Group Songs and Dance. More than 200 students remain present in the event and 16 took part in the cultural program.
- * Independence Day started with "Vande Mataram" song. After that flag hosting done by Principal Sir of our collage Mr. Piyush lashkari sir Principal Sir gave verbal greetings on this day. All the teaching & non-teaching staff was present during the programmed.
- * A cultural program was then organized by the Cultural Club as part of that three patriotic songs, one dance and an act related to our flag were performed. The entire program was conducted by the anchors of the Cultural Club.
- * Riddhi limbachya, Raiya Vohra, Asma Saiyed and Dona Vieyra narrated the function.
- * Brahmbhatt Surbhi, Macwan Aarushi, Ka. Patel Diya, Gadhvi Ruturaj and Rawal Vedant presented patriotic songs.
- * 20 students have presented drama.

Navratri Celebration (VP ni Ramzat) (26th September 2022):

- * The program "VP ni Ramzat" was organized by the club as celebration of the dance festival. More than 500 students took part in the event and prizes for the best dancing and best dressing are given to the participants.

Talent Hunt Program (11th March 2023) : -

- * Talent hunt competition is organized to provide opportunity to the students to show their cultural tone. 43 students took part in dance competition, 8 students in singing competition, 22 students in Cultural ramp walk and 6 students participated in Anchoring competition.

Sardar Patel University Youth Festival (28th December 2022) : -

35 students took part in Intercollegiate Youth Festival Organized by SP University.

4. NATURE CLUB

Ex-Officio : Mrs. M K Patel

Student Secretary: Ms Helay Patel
Kartik Dangodara

Sr.No	Event Name	Date	No. of Participants
1	Slogan writing competition Topic :1)Only one earth 2)Single use plastic 3)Green earth <u>Winners :</u> 1) Shivant T Pandey (Sy IC) 2)Priyanshi k devmurari(sy chemistry)	30-10-2022	6
2	Nature Photography Competition <u>Winners :</u> 1) Ronak Rajput (TY micro) 2) Nikhil Chaudhari(SY Physics) 3) Deep Arya(CS)	26-12-2022	15
3	Article Writing Competition <u>Topic :</u> Save birds from Kites and threads 1) Parmar Krishna (FyBsc) 2) Roshni N Zala(Ty-I.C.)	23-01-2023	10

5. LITERARY CLUB

Ex-Officio : Dr. R. H. Parab

Student Secretary : Vedant Raval

Co-editor : Dr. Yogesh Vadwala

Sr. No	Event Name And Venue	Date	No. of Participants
1.	Thought for today, Information of Scientists, Various Festivals and National & International Days celebration on social media	Everyday	05

6. NATIONAL CADET CORPS (SENIOR DIVISION) (BOYS)

Ex-Officio: Maj. Dr. M.M.Morekar

Student Secretary : SUO Chandubhai Lekhrabhaj Junval

At the beginning of the year 48 boys have been enrolled in First year in NCC. Year wise strength is given below.

FIRST YEAR IN NCC	:	38
SECOND YEAR IN NCC	:	41
THIRD YEAR IN NCC	:	31
TOTAL	:	110

During the academic year of 2022–2023 NCC cadets have attended various camps as given below.

Sr. No.	CAMP	PLACE	NO. OF NCC CADETS	DURATION
1	ARMY ATTACHMENTCAMP	AHMEDABAD	01	02 MAY – 16 MAY, 2022
2	ARMY ATTACHMENTCAMP	JAMNAGAR	08	02 MAY – 16 MAY, 2022
3	CATC CAMP (TSC)	THAMNA	03	01 – 10 JULY, 2022
4	CATC CAMP (TSC)	THAMNA	02	16 – 25 JULY, 2022
5	CATC CAMP	THAMNA	57	01 – 08 AUGUST, 2022
6	CATC CAMP	THAMNA	08	05 – 12 SEPTMBER, 2022
7	CATC CAMP (RDC)	THAMNA	04	05 – 12 SEPTMBER, 2022
8	ADVANCE LEADERSHIP CAMP	THAMNA	01	19 – 28 JANUAARY, 2023

NCC officer MAJOR Dr. M.M.MOREKAR attended the following NCC camps.

Sr. No.	CAMP	PLACE	DURATION
1	CATC CAMP	THAMNA	01 – 08 AUGUST, 2022

- * 18 NCC cadets along with NCC officer Major Dr. M.M.MOREKAR have participated in INTERNATIONAL DAY OF YOGA on 21ST june, 2022 at Shastri Maidan, VALLABH VIDYANAGAR.
- * As a part of celebration of KARGIL VIJAY DIWAS 05 NCC Cadets have been participated in Blood Donation, and 02 NCC Cadets participated in Poster making competition on 25 July, 2022.
- * NCCcadets along with NCC officer Major Dr. M. M. MOREKAR have celebrated INDEPENDENCE DAY on 15th AUGUST 2022 at V.P. & R.P.T.P.SCIENCE COLLEGE, VALLABH VIDYANAGAR and also at CHARUTAR VIDYA MANDAL, VALLABH VIDYANAGAR

- * SGT PARMAR ANISHKUMAR DEVAYATBHAI secured FIRST POSITION in DRAWING COMPETITION in CATC CAMP, THAMNA. (01-08 AUGUST, 2022)
- * CDT PRABHAKAR KANNAUJIYA secured SECOND POSITION in WEAPON HANDLING Competition in CATC CAMP, THAMNA. (01 – 08 AUGUST, 2022)
- * CDT GAGIYA JIGAR POPATBHAI secured FIRST POSITION in DRILL COMPETITION in CATC CAMP, THAMNA. (01 – 08 AUGUST, 2022)
- * UO ZALA RUTURAJ SINH JAYDEV SINH secured SECOND POSITION in HEALTH and HYGIENE Competition in CATC CAMP, THAMNA. (01 – 08 AUGUST, 2022)
- * CDT THAKOR MITESHBHAI INDRAVADAN secured SECOND POSITION in ESSAY Competition in CATC CAMP, THAMNA. (05 – 12 SEPTEMBER, 2022)
- * To celebrate NCC Day on 27 November, 2022 in which 26 NCC Cadets participated in Run for Fit India and Statue cleaning at Shastri Maidan, Vallabh Vidyanagar. Also 03 NCC CADETS donated Blood in Blood Donation Camp at Red Cross Society, Anand.
- * NCC cadets along with NCC officer Major Dr. M.M.MOREKAR have participated in GUARD OF HONOUR PARADE in the honour of GOVERNOR of GUJARAT on 15th DECEMBER, 2022 at S.P.UNIVERSITY, VALLABH VIDYANAGAR.
- * 04 NCC cadets participated in SAMMAN GUARD to honour to NAAC team at Sardar Patel University, Vallabh Vidyanagar. SUO CHANDUBHAI LEKHRAJBHAI JUNVAL was SAMMAN GUARD COMMANDER.
- * NCC cadets along with NCC officer Major Dr. M.M.MOREKAR have celebrated REPUBLIC DAY on 26th JANUARY, 2023 at Shastri Maidan, VALLABH VIDYANAGAR. NCC Cadets are participated in SAMMAN GUARD and REPUBLIC DAY MARCH PAST. UO ANUP DIPAKBHAI VADODARIYA was SAMMAN GUARD COMMANDER.
- * For the academic year 2022-2023 the following NCC Cadet have been awarded as,

BEST NCC CADET : SUO CHANDUBHAI LEKHRAJBHAI JUNVAL
NATIONAL CADET CORPS (SENIOR DIVISION) (GIRLS)

Ex-Officio: Lt. Shivange Valand

Student Secretary: SUO. Komal Dholariya

- Number of Members/Participants : 70

Sr.No Event Name

- 1 SUO Komal Dholariya attended SNIC KAKINADA CAMP held at Andhra Pradesh (30th September to 9th October 2022).
- 2 UO Khushi Valand attended OTA army attachment camp held at Chennai (3rd Nov to 13th Nov 2022).
- 3 SGT Krushi Kechhia attended EBSB CAMP RANIBAGH, TTRAKHAND (28th SEPT TO 09th OCT 2022) and won 2nd PRIZE IN DANCE.
- 4 CPL Siddhi Solanki attended EK BHARAT SHRESTH BHARAT – I CAMP held at AHMEDABAD (2nd sept to 13th sept 2022).
- 5 CDT Prachi Pal attended All India trekking expedition camp held at Rajasthan, Ajmer (5th Nov to 12th Nov 2022)

NATIONAL SERVICE SCHEME**NSS Program Officer : Dr. Rajiv Bhatti and Mr. Atul Patel****Student Secretary : Milan Gouswami and Sanjana Panjabi**

SR.NO.	EVENT NAME AND VENUE	DAY / DATE	NO. OF PARTICIPANTS
1	Swami Vivekanand 1-day Netrutva Workshop	31/07/2022	60 volunteers
2	Kargil Vijay Diwas Online Quiz	26/07/2022	153 volunteers
3	Azadi Ka Amrut Mahotsav Celebration	04/08/2022	98 volunteers
4	Har Ghar Tiranga Rally	06/08/2022	227 volunteers
5	Har Ghar Tiranga Celebration		
6	One Day Trecking Camp – Jambughoda		
	Wildlife Sanctuary	10/09/2022	141 volunteers
7	Mega Blood Donation Camp	17/09/2022	136 unit blood collected
8	NSS Day Celebration	24/09/2022	83 volunteers
9	National Games Opening, Gandhinagar	29/09/2022	92 volunteers
10	Cloth Donation	02/11/2022 to 25/11/2022	
11	Grain Collection	24/12/2022	65 volunteers
12	Campus Cleaning	06/01/2023	74 volunteers
13	Red Cross Training Program SPU	05/01/2023	8 volunteers
14	National Integration Camp - Chattisgarh	21/05/2022 to 27/05/2022	3 volunteers
15	EBSB – Raipur, Chattisgarh	14/08/2022 to 19/08/2022	3 volunteers
16	PRE RD Camp	19/11/2022 to 29/11/2022	1 volunteer
17	National Integration Camp - Rohtak	07/12/2022 to 13/12/2022	7 volunteers
18	SRD Camp	16/01/2023 to 26/01/2023	1 volunteer
19	National Integration Camp - Anand	10/02/2023 to 16/02/2023	8 volunteers
20	National RD Camp	01/01/2023 to 31/01/2023	1 program officer
21	Thalassemia Test	23/03/2022	
22	NSS Office Cleaning	14/03/2022	20 volunteers
23	National Youth Festival 2023	12/01/2023 to 16/01/2023	2 volunteers
24	NSS orientation		

List of NSS volunteers participated in national & state camps during academic year 2022-2023 & made our college & NSS unit proud.		
Sr. No	Event	Name Of Volunteer
1.	National Integration Camp, Raipur [Chattisgarh] Date: 21/05/2022 To 27/05/2022	Jay P. Dudhatra ,Hemangi Bhoi, Kashish Prajapati
2.	Ek Bharat Shreshtha Bharat, Raipur [Chattisgarh] Date:14/08/2022 To 19/08/2022	Jay P. Dudhatra, Hemangi Bhoi Sakshi P. Vanparia
3.	National Integration Camp, Rothak [Haryana] Date:7/12/2022 To 13/12/2022	Atul K. Ka Patel, Anjali M. Parmar Vrunda P. Patel, Milangiri J. Gauswami Prince Dhanja, Nikhil Y. Chaudhari Bhumit Devnani, Maitri Patel
4.	West Zone NSS Pre Republic Day Parade Camp 2022, Vallabh Vidhyanagar [Gujarat] Date: 20/11/2022 To 29/11/2022	Soham A. Prajapati
5.	NSS Natinoal Republic Day Parade Camp 2023, New Delhi Date: 01/01/2023 To 31/01/2023	Dr. Rajivkumar Z. Bhatti [Gujarat Contigent Leader]
6.	26 th National Youth Festival, Dharwad-Hubbali [Karnataka] Date: 12/01/2023 To 16/01/2023	Vismay Chauhan, Sanjana Panjabi
7.	State Republic Day Parade 2023 Date: 15/01/2023 To 26/01/2023	Soham A. Prajapati
8.	National Integration Camp, Vallabh Vidhyanagar [Gujarat] Date: 10/02/2023 To 16/02/2023	Soham A. Prajapati, Kartik D. Dangodara Sahil H. Bhimani, Rahulkumar Rathava Jay P. Dudhatra, Sanjana Panjabi Vrushali Panchal, Archana Panchal Goswami Dhruti, Hemangi Bhoi

8. SPORTS CLUB**Ex-Officio:** Dr. J.K.Chauhan**Students Secretaries :** Neel Shanishvara and Khushi Valand

- * In this current year 2022-23 boys and girls of our college participated in various inter college competition organized by Sardar Patel University. College boys and girls participated in district level, state level, Gujarat State Khelmahakumbh, Inter University West Zone, and national tournaments in various sports like Badminton, Table Tennis, Football, Volleyball, Handball, Basketball, Cricket, Kabaddi, Chess, Boxing, Rifle Shooting, Karate and Athletics.
- * Students achievement in various Inter College tournaments of Sardar Patel University year 2022-23

No.	Event	Result
1	Badminton Tournament(Boys)	Runners-up
2	Basketball Tournament(Boys)	Runners-up
3	Football Tournament (Boys)	Runners-up
4	Handball(Boys)	Runners-up
5	Kabaddi Tournament(Girls)	Runners-up
6	Athletics (Boys)	Deep Arya Gold medal in Discus Throw
7	Athletics (Girls)	Anushka Gautam Bronze medal in Discus Throw
8	Athletics (Girls)	Deshani Vandana got Silver medal in javelin throw

- * **Participation in West Zone by VPM college students**
 1. Total **8** Boys participated in Inter University West Zone Tournament in various Games.
 2. Total **2** Girls participated in Inter University West Zone and **2** in All India University Tournament in various Games.
- * **Participation in Inter College Tournaments organized by SPU**
 1. Total **21** Boys and **8** Girls Participated in Sardar Patel University Inter Collegiate Athletics Championship 2022-23.
 2. Total **143** Boys Participated in Sardar Patel University various Inter Collegiate Tournament 2022-23.
 3. Total **47** Girls Participated in Sardar Patel University various Inter Collegiate Tournament 2022-23.



PLAYERS LIST OF VARIOUS ALL INTER UNIVERSITY WEST ZONE

Sr. No.	Players Name	West Zone Tournament	Class	Place
1	Shanishvrara Neel Jigneshbhai	Basketball	T.Y B.Sc (Physics)	Udaipur (Rajasthan)
2	Jethava Gaurav Ashokkumar	Basketball	F.Y B.Sc	Udaipur (Rajasthan)
3	Sharma Valay Girishbhai	Football	S.Y. B.Sc IC	Jabalpur (M.P)
4	Rathva Prakash Pravinbhai	Football	T.Y. B.Sc (Maths)	Jabalpur (M.P)
5	Rathva Ashvin Zinabhai	Football	F.Y. B.Sc	Jabalpur (M.P)
6	Pal Manish Ramkishor	Football	S.Y. B.Sc (Maths)	Jabalpur (M.P)
7	Rathva Gulab Jentabhai	Football	S.Y.B.Sc (Maths)	Jabalpur (M.P)
8	Sargara Sanket Iswarbhai	Badminton	T.Y.B.C.A	Kota (Rajasthan)
9	Deshani Vandana Balakdas	Kabaddi	S.Y.B.Sc (Micro)	Amaravati (Maharashtra)
10	Chaudhary Hani Maheshbhai	Kabaddi	S.Y.B.Sc (Chem)	Amaravati (Maharashtra)
11	Jotva Manaskumar Khimabhai	Handball	F.Y. B.Sc	Jaipur (Rajasthan)
12	Rathod Jitendra Pratapbhai	Handball	F.Y. B.Sc	Jaipur (Rajasthan)

PLAYERS LIST OF ALL INDIA UNIVERSITY TOURNAMENTS 2022-23

Sr. No	Players Name	Tournament	Class	Place
1.	Anushka Gautam	Karate	T.Y B.Sc (Cs)	Bilaspur (Chhattisgarh)
2.	Patel Keya Nitinbhai	Karate	S.Y B.Sc (Cs)	Bilaspur (Chhattisgarh)

9. DEBATE CLUB

Ex-Officio: Dr Charudutt Gurjar

Student Secretary: Ms. Nupur Shah

Sr.No	Event Name
1	Extempore Speech Competition : Participants: 28 Winners : 1) Dhyey Bhatt 2) Dhruv Parikh 3) Vedant Raval
2	Inter College Elocution Competition by Shri Arvind Chair of Sardar Patel University Mr.Vedant Raval of TY Chemistry & Ms. Sania Vahora of TY Chemistry won 1st and 2nd prize respectively.
3	3 students of our college were selected to visit Shri Arvind Ashram, Pondicherry in May 2023 (Mr. Vedant Raval, Ms.Anushkha Gautam, Mr. Dhruv Bhatt.
4	Mr.Vedant Raval of TY Chemistry & Ms. Sania Vahora won the team championship in Inter college Debate Competition conducted by N S Patel Arts College, Anand.
5	Ms. Sania Vahora won 2nd Position in Inter-college Debate Competition conducted by N S Patel Arts College, Anand

10. WOMEN'S DEVELOPMENT CELL

Convener : Ms. S. K. Menon

Sr.No	Event Name
1	The college women's cell conducted orientation programme for the girl students of the college
2	Organised a talk by Dr Shree Jani from Shri Krishna Hospital, Karamsad on gynaecological issues faced by women on 10.9.2022.
3	Charutar Vidya Mandals GIA institutes organized a recipe competition on millets on 23.01.2023. Four students from the college participated in the same. Ms Arya Gosai won a position for her recipe presentation.

11. Coaching for entry into service : [VPM IAS STUDY CLUB]

Coordinator : Dr. A. R. Jivani

Student Members :

Isha Patel [T.Y.B.Sc.(Chemistry)]	Pinak Rathod [T.Y.B.Sc.(Chemistry)]
Anish Parmar [T.Y.B.Sc.(Mathematics)]	Dhyanish Modi [S.Y.B.Sc.(Mathematics)]
Pooja Lakhvani [T.Y.B.Sc.(Chemistry)]	Mitesh Thakor [T.Y.B.Sc.(Mathematics)]

The college runs VPM IAS STUDY CLUB [Coaching for entry-level services] to aware students of our college about competitive examinations conducted by UPSC, GPSC, IBPS, etc. The club organizes seminars, orientation programs, etc., for the guidance of format of various competitive examinations throughout the year.

Orientation Program :

The club organized an orientation program to provide information and guidance on the various competitive examinations after graduation on 3rd August 2022. **Mr. Bhautikbhai Patel** (Coordinator, CVM IAS Academy, Vallabh Vidyanagar) guided the students during his lecture. He also suggested that aspirants must cultivate various habits to crack competitive examinations.

Lecture On Tricks for Fast Calculations :

On 1st and 2nd September 2022, **Dr. A. R. Jivani** conducted two sessions on “**Tricks for Fast Calculations**”. He explained to the students some tricks to fast and accurately solve mathematical problems. Such tricks increase accuracy in the calculations and save valuable time in computations during the competitive examinations.

Study Materials :

The club provided daily useful E-newspaper and study materials for the preparation of the competitive examinations in soft and hard formats.

Lecture on Geography :

On 7th January 2022, one of the club members, Mr. Anish Parmar delivered a very informative lecture on Geography.

One-Day Seminar on “Entrepreneurship & Career Development” :

One-day seminar organized jointly by VPM IAS Study Club and Training & Placement Cell of our college on 28th January 2023. In this seminar, Dr. Ritesh Bhatt delivered a lecture on “Sell Yourself”. He passed 14 years of his life in very odd situations in different countries. He guided students on how to face odd situations in life and get success with an example of his life. Mr. Mahesh Solanki, an educator, delivered a very useful lecture on “Soft Skills for Competitive Examinations”. He explained with statistics that normal students can crack competitive examinations with dedication and hard work. He guided the students about the format of the examinations conducted by GPSC, UPSC, etc. for civil services.

12. Personality development Program :

Coordinator : Dr. K. D. Patel

On 16th February 2023 organized lecture on “Team building and leadership” for encouraging and guide to the students with the exact meaning of leadership by Dr. Dipal Patel, Assistant Professor, SEMCOM, Vallabh Vidyanagar.

13. College Prospectus and Academic Calendar Committee :

Coordinator : Dr. A. R. Jivani

Every year college provides prospectus of the college with admission form which gives useful information to the students and parents about college, course structure, rules and regulations, curricular and co-curricular activities, achievements of the students and more and hence it is necessary to update college prospectus regularly.

Last year, we published our college Academic Calendar which give useful information about tentative date of curricular and co-curricular activities, examinations and holidays and term schedule etc.

14. Add-On Courses

Coordinator : Mr. Rajesh P. Solanki

During the academic year 2022-23 four add-on courses were offered to the students of the college. Details of the courses are provided below

Sr. No.	Title of the course	Coordinator	Department	Number of students
1.	Separation Techniques: Chromatography	Dr. Pravinkumar M. Patel	Industrial Chemistry	32
2.	Science and Spirituality Brahmbhatt	Dr. Naina H.	Biology	22
3.	Textile Dyeing and Printing	Dr. Yogesh B. Vadwala	Chemistry	22
4.	Manufacturing of Domestic Items	Dr. H. R. Maradiya	Chemistry	18
5.	Elementary Course in LaTeX	Dr. S.A. Bhanotar	Mathematics	15

15. Equal Opportunity Cell

Coordinator : Dr Vipul Kataria

The event was organized by equal opportunity cell of V. P. & R. P. T. P. Science college on 19/01/2023. The idea behind the event was to inform students regarding different financial assistance available for SC/ST/SEBC/EWS students from government. 200 students participated in the event. Ms. Hinaben Kalani, Assistant district welfare officer (SEBC/EWS) provided detailed information regarding different scholarships available for SEBC/EWS students (PM Yashvi yojna) and foreign education assistance available for students who want to pursue higher education in foreign countries after graduation. She also described procedures and documentation required for same. Mr. Akash Garasiya Assistant district welfare officer (SC) gave information about digital Gujarat platform that has been in function for application for various schemes. He also provided information regarding foreign education assistance available for SC/ST students. He described whole procedure starting from applying for scholarship to getting scholarship in DBT mode. He explained every aspect in simple manner. The whole event was anchored by Dr Vipul Kataria (Coordinator, EOC) and the vote of thanks was proposed by Mr. Nirav Patel. The other members Mr. J. K. Parmar, Dr Viral Desai, Dr. L. M. Katara assisted in every manner to make this event grand success.

16. Innovation club

Coordinator : Dr Vipul Kataria

Four days workshop of innovation club regarding training of different kits like electronic kit, advance electronics kit, mechatronics kit, science kit, agriculture kit, drone and telescope was been organized by innovation club of V. P. & R. P. T. P. Science college in between 1st to 4th February 2023. 75 students participated. Students carried out an activity with the help of science kit. Students collected water samples from various departments and hostels and measured TDS and pH.

શોધ

ઘણી વખત આપણા વાંચવામાં કે સાંભળવામાં આવે છે કે અમુક વ્યક્તિએ અમુક વસ્તુની શોધ કરી. જેમકે એડિસને બલ્બની શોધ કરી હતી, ગ્રેહામ બેલે ટેલિફોન શોધ્યો હતો વગેરે.

હવે પ્રશ્ન એ થઈ શકે કે ખરેખર શોધ કરવી એટલે શું ? શું કરવાથી કોઈ શોધ થઈ ગણાય ? સામાન્યતઃ એવો જવાબ મળે કે વિશ્વમાં અગાઉ અસ્તિત્વ ન ધરાવતી હોય એવી વસ્તુ કે બાબતને વિશ્વ સમક્ષ રજૂ કરવી એટલે શોધ કરવી.

પરંતુ મારા મતે શોધની આ વ્યાખ્યા પર્યાપ્ત નથી. ઘણી જગ્યાએ આ વ્યાખ્યા દ્વારા ‘શોધ’ના અર્થને સંપૂર્ણપણે રજૂ કરી શકાતો નથી. દાખલા તરીકે જોસેફ પ્રિસ્ટલી (Joseph Priestley) તેમણે વર્ષ ૧૭૭૨માં ઓક્સિજન-પ્રાણવાયુની શોધ કરી હતી. તો જો શોધ એટલે વિશ્વમાં અગાઉ અસ્તિત્વ ન ધરાવતી વસ્તુને રજૂ કરવી એવું માનીએ તો પછી ઓક્સિજનની શોધ સંદર્ભે ભારે મૂંઝવણ થાય તેમ છે. કેમકે ઓક્સિજનની શોધ તો છેક ૧૭૭૨માં થઈ, તો શું ૧૭૭૨ પહેલા ઓક્સિજનનું અસ્તિત્વ જ નહોતું ? શું પ્રિસ્ટલીએ ઓક્સિજનનું નિર્માણ કર્યું હતું ? એવું તો શક્ય જ નથી ને ! અર્થાત્, શોધની આ વ્યાખ્યા અપૂર્ણ છે, એમ સાબિત થાય છે.

મારા મતે શોધ એટલે બે તબક્કામાં વિભાજિત પ્રક્રિયા. જેમાંનો પ્રથમ તબક્કો છે - પ્રકૃતિમાં રહેલ કોઈ એવી વસ્તુ કે બાબત કે જેનાથી વિશ્વ અજાણ છે તેને નિરીક્ષણથી જાણવી.

આને સમજવા માટે જોસેફ પ્રિસ્ટલીનું જ ઉદાહરણ લઈએ. પ્રિસ્ટલી એમના airs(હવાઓ) સાથેના પ્રયોગો માટે જાણીતા છે તેઓ તે સમયે જાણીતા અને ઉપલબ્ધ હોય એવા ભિન્ન ઘન અથવા પ્રવાહી અવસ્થાના સંયોજનોનું જે તે પદ્ધતિઓથી વિઘટન (Decomposition) કરતા. પછી ઉત્પન્ન થતા વાયુને કોઈ રીતે એકત્રિત કરતાને તેનું ભિન્ન પ્રયોગોથી અવલોકન કરતા. આ રીતે તેમણે એકાદ-બે નહીં પરંતુ નવ વાયુઓની શોધ કરી હતી. જેમાંનો એક વાયુ ઓક્સિજન. હવે જો તેમની ઓક્સિજનની શોધ માટેની પ્રક્રિયા જોઈએ તો એમણે સર્વપ્રથમ તો જેનાથી વિશ્વ અજાણ છે (જેમાં તેઓ પોતે પણ અપવાદ નથી) એવી એક વસ્તુ (અહીં ઓક્સિજન વાયુ) ને ‘જોઈ’ આમ, પ્રથમ તબક્કો નિરીક્ષણનો થયો.

બીજો તબક્કો છે -તમારું નિરીક્ષણ સાર્વત્રિક છે કે નહીં, અન્ય લોકો માટે એ એટલું જ યથાર્થ છે કે નહીં તે ‘સંવાદ’પૂર્વક જાણવું. આ તબક્કો ‘સંવાદ’ પૂર્વક જ થાય એ નિતાંત આવશ્યક છે. એના માટે ‘સંવાદ’ને સમજવો જ રહ્યો. એકથી વધુ માનવો વચ્ચે વિચારોનું આદાનપ્રદાન ત્રણ રીતે શક્ય છે: -૧) ‘વાદ’પૂર્વક અર્થાત્ ‘આમ જ હોવું જોઈએ’ એવા ભાવ સાથે; ૨) ‘વિવાદ’પૂર્વક અર્થાત્ ‘હું કહું છું તે પ્રમાણે જ હોવું જોઈએ’ એવા ભાવ સાથે અને ૩) ‘સંવાદ’પૂર્વક અર્થાત્ ‘ચાલો, સાથે મળીને જોઈએ કે ખરેખર છે શું ?’ એવા ભાવ સાથે. શોધનો બીજો તબક્કો સંવાદપૂર્વક થાય તો જ કોઈ સાર્વત્રિક તથ્યને પામી શકાય, અન્યથા કૂપમંડૂકતાથી વિશેષ કંઈ મળવાનું નથી. આમ, શોધનો બીજો તબક્કો પરીક્ષણ અને સર્વેક્ષણનો છે.

આમ, આ બન્ને તબક્કા પરિપૂર્ણ થયા પછી શોધ થઈ ગણાય એવો મારો મત છે. મારું એમ પણ કહેવું છે કે invention અને discovery એ બે ભિન્ન વસ્તુ છે. દાખલા તરીકે વિમાન, કમ્પ્યુટર, મોબાઈલ ફોન વગેરે invention છે. માનવજાતિના પ્રયાસો અગાઉ એ બધાનું નૈસર્ગિક અસ્તિત્વ નહોતું. જ્યારે ઓક્સિજન વગેરે invention નથી. એ discovery છે. હા, વધુ બારીક કાંતતા એ પણ સમજાય છે કે કોઈપણ inventionનો સૈદ્ધાંતિક આધાર તો કોઈ અસ્તિત્વ સહજ નિયમ જ છે. નિરીક્ષણથી એ નિયમને સમજવાથી, સંવાદપૂર્વકના પરીક્ષણ અને સર્વેક્ષણથી એને ચકાસવાથી એની શોધ-discover થશે. પછી એ સાર્વત્રિક નિયમનો ઉપયોગ કરીને ભિન્ન invention થઈ શકે.

એક પ્રશ્ન એ પણ થાય કે શોધ કરવી જ શા માટે ? એનું પ્રયોજન શું ? આના ઉત્તરમાં પ્રતિપ્રશ્ન કરી શકાય કે. માનવનું અંતિમ ધ્યેય શું ? છેવટે તો આપણે સુખ જ જોઈએ ને ? આમ, શોધ પણ માનવના સુખના અર્થમાં છે એમ કહી શકાય. વળી પ્રશ્ન થાય કે અત્યાર સુધી આટલાટલી ‘શોધ’ થયા પછી પણ શું માનવને સુખ મળ્યું છે ખરું ? શું આ ધરતી પર કોઈ એવો માનવ છે ખરો કે જે પોતને ૨૪x૭ નિરંતર સુખી ગણાવી શકે ? ધડ દઈને જવાબ મળશે, ના ! તો પછી ક્ષતિ ક્યાં રહેવા પામી છે એ જોવું જ રહ્યું.

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COUNSELLING & PARENT CELL



LIBRARY ADVISORY COMMITTEE



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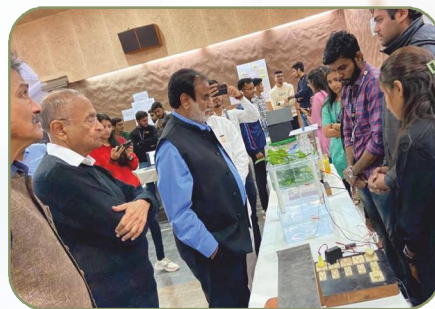
Various Departments

Chemistry Department



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Industrial Chemistry Department



Electronics Department



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મારા મતે આપણે invention અને discovery ને એક સમજવાની જે ભૂલ કરી એ આ સુખની બાબતમાં પણ નડી રહી છે. આપણે સુખનું invention કરવા માંગીએ છીએ, પણ તે inventionનો સૈદ્ધાંતિક આધાર શું હોઈ શકે એ દિશામાં કોઈ જ પ્રયત્ન કરતા નથી. આપણે એની 'શોધ' કરતા નથી. શોધ એટલે ? બે તબક્કામાં વિભાજિત પ્રક્રિયા.

પ્રથમ તબક્કો નિરીક્ષણનો છે. શેનું નિરીક્ષણ ? પોતાના વિચારોનું નિરીક્ષણ, વિચારો પાછળના ભાવનું નિરીક્ષણ. મારા સુખ-દુઃખનું કારણ મારા ભાવ-વિચારોમાં વિસંગતતા છે કે નહીં તેનું નિરીક્ષણ. મારા ભાવ બાહ્ય પરિસ્થિતિઓને કારણે બદલાઈ જાય છે કે નહીં તેનું નિરીક્ષણ. મારા અન્ય માનવો સાથેના સંબંધોનું નિરીક્ષણ.

ને બીજો તબક્કો છે સંવાદપૂર્વક પરીક્ષણ અને સર્વેક્ષણનો. મારા આ નિરીક્ષણના તથ્યો મારા સ્નેહીજનો તેમજ અન્ય સૌ કોઈ માટે પણ એટલા જ સાચા છે કે નહીં તેનું સંવાદપૂર્વક પરીક્ષણ અને સર્વેક્ષણ. આમ, આ બંને તબક્કાઓ પરિપૂર્ણ થયા પછી જ આપણે સુખ શોધી શકીશું એમ મારું માનવું છે.

ટૂંકમાં, જેમ ભૌતિક-રાસાયણિક જગતના સાર્વત્રિક, નૈસર્ગિક નિયમો છે એમ આપણા સુખી થવાના પણ કોઈ નિયમો હશે ને ? ભૌતિક-રાસાયણિક જગતના કંઈ કેટલાય નિયમોની શોધ-discovery આપણે કરી અને સંસાધનોના ક્ષેત્રમાં અસાધારણ પ્રગતિ કરી. પણ ભાવનો-ચૈતન્યતાનો સંસાર હજી એમ જ વણખેડ્યો પડ્યો છે. એ સંસારના નિયમો હજી અકબંધ છે. એની શોધ હજી બાકી છે.

તો હવે રાહ કોની છે ? ચાલો, જલ્દીથી આ શોધ પ્રક્રિયામાં લાગી જઈએ...

વેદાંત ભૂપેશ રાવલ
TY Chemistry

હું શું કરું ?

ઘણું સમજાવ્યા છતાં મને સમજાવે કે,
તારી સમજમાં કોઈ સમજણ જ નથી,
હવે, મારી સમજને કોઈ ન સમજે
તો હું શું કરું ?
હા, ઘણી ખામીઓ છે મારામાં પણ
હું રોજ મને સુધારું છું
મારા મન સાથે લડીને,
ખુદને એક શ્રેષ્ઠ વ્યક્તિ બનાવું છું.
મારી આ મહેનતને જોવાના બદલે,
ભૂલો જ જોયા કરે તો હવે હું શું કરું ?
પળવારમાં વઢી નાખે,
અને પળવારમાં શાબાશીનાં ઢગ કરે
દુનિયાને રંગ બદલવાની
આદત હોય તો હવે હું શું કરું ?

ધ્વનિશા મહેતા
એફ.વાય.બી.એસસી.

સ્વામી વિવેકાનંદનું જીવન

માનવના જીવનકાળ દરમ્યાન કેટલાક વર્ષો વિદ્યાર્થી તરીકે વિતાવે છે. આ વિદ્યાભ્યાસના સમય દરમ્યાન માણસ અનેક પ્રકારના જ્ઞાન તેમજ સંસ્કાર મેળવે છે. દરેક વિદ્યાર્થી વિદ્યાભ્યાસ દરમ્યાન કોઈને કોઈ વ્યક્તિને તેમના પ્રેરણાસ્ત્રોત તરીકે પસંદ કરતા હોય છે. જેમાંથી પ્રેરણા લઈને તેઓ જીવનમાં સારા અને સફળ બનતા હોય છે. તેમાંના એક શ્રેષ્ઠ પ્રેરણાસ્ત્રોત કે જેમને ઘણા બધા વિદ્યાર્થીઓ Youth Icon તરીકે સમજે છે. તે છે સ્વામી વિવેકાનંદજી.

સ્વામીજીનું આદર્શ અને સાદગીભર્યું જીવન તથા તેમના કરેલા ભારત દેશ માટેના મહાન કાર્યો ખરેખર ખૂબ જ સરાહનીય છે. તેમના જીવનનો જુદા જુદા દૃષ્ટિકોણથી અભ્યાસ કરતા આપણને તેમાંથી અખૂટ સમજવા લાયક જ્ઞાન મળતું હોય છે. તો આ આલેખનમાં આપણે તેમના જીવનના પ્રસંગ તેમજ તેમાંથી કાંઈ બોધ મેળવવાનો પ્રયત્ન કરીશું.

પ્રસંગ-૧

સને ૧૮૮૪, સ્વામીજી બી.એ. કરી રહ્યા હતા. ત્યાં તેમના પિતાનું અકાળે અવસાન થયું. તેમના પિતાશ્રી વિશ્વનાથ દત્તના આમ અયાનક મૃત્યુથી તેમના કુટુંબ પર અણધારી આફત આવી પડી. તેમના પિતા ખૂબ જ ઉદાર સ્વભાવના હતા તથા દાન કર્મમાં શ્રદ્ધા રાખતા. તેમ છતાં આવી વિપદાના સમયે સ્વામીજી અને તેમના માતા સગા સંબંધીઓ તરફથી તિરસ્કારને પામ્યા.

આવી અસહ્ય પરિસ્થિતિમાં પણ તેઓ બી.એ.ની પરીક્ષામાં ઉત્તીર્ણ થયા તેમજ એલ.એલ.બી.ના અભ્યાસ તરફ આગળ વધ્યા. અભ્યાસ સાથે સાથે તેઓ પરિવારના ભરણપોષણ માટે નોકરીની શોધમાં હતા. તે સમયે તેઓની ઉંમર માત્ર ૨૧ વર્ષની હતી. તેઓ તડકામાં ઉઘાડે પગે હાથમાં અરજી લઈને એક ઓફિસથી બીજી ઓફિસે ધક્કા ખાતા કેટલીક વાર જમવાનું પણ નસીબ ન થતું. આવા વિકટ સમય દરમ્યાન તેમને કેટલાક ખોટા રસ્તાથી સુખી થવાના પ્રલોભનો કરનાર વ્યક્તિઓ મળ્યા, પરંતુ તેમણે બધાને નકાર્યા અને ભગવાનની આ કસોટીમા પાર ઉતર્યા.

ભગવાનની આવી આકરી કસોટી દરમ્યાન સ્વામીજીની માતા શ્રીમતી ભુવનેશ્વરીદેવીનું પણ કામ ખૂબ જ સરાહનીય હતું. આ સમયમાં પણ ભુવનેશ્વરીદેવીએ અખૂટ ધીરજ દાખવી. આ સમયમાં તેમના ધૈર્ય, સહિષ્ણુતા, સ્વમાન વગેરે ગુણો તેમનામાં ઝળકી ઉઠ્યા. વકીલાતની ધકધકતી કમાણીના દિવસોમાં જેઓ મહિને હજાર બે હજાર રૂપિયા ખર્ચ કરતા તેમણે પતિના સ્વર્ગવાસ બાદ માસિક કુલ ત્રીસ રૂપિયામાં કુટુંબનું ભરણપોષણ કર્યું. આવી અસહ્ય પરિસ્થિતિમાં પણ કોઈએ તેમને ઉદાસ કે નિરાશ જોયા ન હતા.

બોધ : આ પ્રસંગ સ્વામીજીના જીવનની ખૂબ મુશ્કેલ કસોટી હતી. આપણા વિદ્યાર્થી જીવનકાળ દરમ્યાનની મુશ્કેલીઓ તેની સામે એક કંકર સમાન થઈ પડે છે. સ્વામીજી તથા તેમના માતાના આ પ્રકારની આકરી કસોટી દરમ્યાન ઝળકતા કેટલાક ગુણો જેમકે, ધૈર્ય, સહિષ્ણુતા તેમજ ધર્મના રસ્તા પર તત્પર રહેવું એ ખરેખર શીખવા લાયક છે. તેમની માતાનું આ પરિસ્થિતિને સંભાળવાનું આ પ્રકારનું આદર્શ આચરણ પણ ખૂબ જ પ્રેરણાદાયી છે.

પ્રસંગ-૨

તેમના પ્રવાસ દરમ્યાન સ્વામીજી અલવર શહેર પહોંચ્યા. ત્યાંના દિવાન મેજર રામચંદ્રએ પોતાના ઘરે સ્વામીજીને આમંત્રિત કર્યા. ત્યારબાદ તેમણે અલવરના મહારાજા મંગલસિંહની સાથે સ્વામીજીની મુલાકાત કરાવી. મહારાજા મંગલસિંહ તે સમયે ખાનપાન, રહેણીકરણી વગેરે દરેક બાબતમાં પશ્ચિમી રંગમાં રંગાયેલા હતા. શિષ્ટાચાર બાદ તેઓનો સ્વામીજી સાથેનો સંવાદ શરૂ થયો.

તેમણે પ્રશ્ન કરતા કહ્યું “સ્વામીજી આપ વિદ્વાન છો, સારી રીતે કમાઈ શકો છો. છતાં આપ ભીખ શા માટે માંગો છો?”

આના ઉત્તરમાં સ્વામીજીએ સામો પ્રશ્ન કર્યો, “મહારાજા સાહેબ ! પ્રજા પ્રત્યેની આપની ફરજ મૂકીને આપ બધો સમય શિકારમાં જ ગાળો છો. શા માટે?”

મહારાજે ઉત્તર આપ્યો “એ તો હું કહી ન શકું પરંતુ મને એ ગમે છે”

સ્વામીએ કહ્યું, “ત્યારે મને પણ ભિક્ષા માંગવી ગમે છે.”

બોધ : આપણે જાણીએ છીએ કે સ્વામીજીનો દૃષ્ટિકોણ હંમેશા અભ્યાસલક્ષી રહેતો. તેથી આપણે અનુમાન કરી શકીએ કે તે ભિક્ષા માગવાના આ કર્મને પણ અભ્યાસ તરીકે જ લેતા હતા. આપણા ગુજરાતીમાં એક કહેવત ખૂબ પ્રસિદ્ધ છે કે “અધૂરો ઘડો ઘણો

છલકાય.” એટલે કે, અજ્ઞાની અને પૂર્ણ જ્ઞાની માણસ કરતા અધૂરું જ્ઞાન ધરાવતો મનુષ્ય વધારે અહંકાર દર્શાવતો હોય છે. વર્તમાનમાં વિદ્યાભ્યાસ સમયે આપણે કોઈ વિષયમાં આપણી શાળા કે મહાશાળામાં શ્રેષ્ઠ હોઈએ ત્યારે આપોઆપ આપણામાં અહંકારનો ભાવ જન્મ લે છે. અને આપણામાં શ્રેષ્ઠ બની રહેવાની કામનાનો ઉદ્ભવ થાય છે. જ્યારે તે પૂરી નથી થતી ત્યારે ક્રોધ, ઈર્ષ્યા તેમજ નિરાશાના ભાવો આપોઆપ ઉત્પન્ન થતા હોય છે. તથા જો કામના પૂરી થઈ જાય તો અહંકારમાં વધારો થાય છે. જે બન્ને રસ્તા દુઃખ તરફ દોરી જાય છે.

આપણી સંસ્કૃતિમાં ભિક્ષાનું ખૂબ જ મહત્વ છે. સંન્યાસીઓ, ઋષિમુનિઓ, વિદ્વાનો તથા સાધુઓ કે જેમનામાં પૂર્ણ જ્ઞાન છે, તે બધા જ ભિક્ષા માગીને જીવન વ્યતિત કરતા હોય છે. પ્રથમ દૃષ્ટિકોણથી જોતા આપણે કહી શકીએ કે ભિક્ષા માગવાથી મનુષ્યમાં અહંકારનો ભાવ ઉત્પન્ન થતો નથી તેમજ જો હોય તો તે નાબૂદ થઈ જાય છે. આપણા સમાજમાં ભિક્ષુક સૌથી વધુ તિરસ્કારને પામે છે. તેમાં વિદ્વાનો કે સંન્યાસીઓ સામાન્ય માણસોથી તિરસ્કાર પામ્યા હોવા છતાં કોઈપણ પ્રકારના દ્વેષ કે ઈર્ષ્યાની ભાવના વિના તેમને જ્ઞાનરૂપી ઉપહાર ભાવથી આપતા હોય છે. જે તેમનામાં ઉદારતા તથા આપણામાં તેમના પ્રત્યે આદરનો ભાવ ઉત્પન્ન કરે છે. જે બન્ને માણસોને સુખ તરફ દોરી જાય છે. આ પ્રમાણે ભિક્ષા માંગવી એ પણ એક પ્રકારનો અભ્યાસ છે એમ આપણે કહી શકીએ.

સ્વામીજીના જીવનનો જો આવી નાનકડા ભાગનું મનનચિંતન કરીને આપણે આટલું સમજી તથા શીખી શકતા હોઈએ, તો આવા મહાન પુરુષના જીવનનું સંપર્શ અભ્યાસથી આપણને કેટલીક પ્રેરણા મળી શકે !

વિવેક જી. કાળીયા

ટી.વાય.બી.એસસી.(કેમસ્ટ્રી)

મારી વાત ક્યાં થાય છે ?

ડગલે ને પગલે કોઈ ‘કૃષ્ણ’ બનીને,
મારી ભૂલો બતાવી જાય છે.
પણ અહમ્ ભરેલું મારું મન સમજે,
આ મારી વાત ક્યાં થાય છે ?
ભજન કરો અને ધ્યાન રાખો,
માયાના જાળમાં ક્યાંક ફસાઈ ના જાઓ.
કામ, ક્રોધ, મદ, મોહ અને લોભના
દરિયામાં ક્યાંય ખોવાઈ ન જાઓ.
આત્મકલ્યાણનાં આવાં ઘણાં,
ઉપદેશો સંતો મને દઈ જાય છે.
પણ બાહોશ બનેલું મારું મન સમજે,
આ મારી વાત ક્યાં થાય છે ?
હે મારા મન ! સમજી જા તું સાનમાં,
મૂક ખોટાં અહમ્, ન કર ખોટાં માનમ,
ભજન કરી ભગવાન મેળવ,
પછી જો તારી વાત ક્યાં-ક્યાં થાય છે !
બાકી માયામાં જો મોક્ષ બગાડ્યા,
તો જો જે તારી વાત ક્યાંય થાય છે ?

ધ્વનિશા મહેતા

એફ.વાય.બી.એસસી.

"My Favourite Indian Physicist"**“ડો. અબ્દુલ કલામ”**

ડો.એ.પી.જે.અબ્દુલ કલામ એક મહાન વૈજ્ઞાનિક, એક ઉમદા લેખક અને એક કુશળ રાષ્ટ્રપતિ હતા. એ.પી.જે.અબ્દુલ કલામે ૨૦૦૨ થી ૨૦૦૭ સુધી સ્વતંત્ર ભારતના ૧૧ મા રાષ્ટ્રપતિ તરીકે સેવા આપી. તેમણે એક રાષ્ટ્રપતિ તરીકે અને વૈજ્ઞાનિક બંને જ જગ્યાએ દેશને આપ્યા. તેમણે પોતાના જીવનકાળ દરમિયાન ખૂબ જ નિષ્ઠા અને કાર્ય કુશળતાથી કાર્ય કર્યું. આજે દેશ તેમજ દુનિયાભરમાં “મિસાઈલમેન” તરીકે ઓળખાતા એ.પી.જે.અબ્દુલ કલામનું પુરું નામ અબુલ પાકિર જૈનુલાબ્દીન અબ્દુલ કલામ હતું.

અબ્દુલ કલામનો જન્મ ૧૫ ઓક્ટોબર ૧૯૩૧માં તમિલનાડુનાં રામેશ્વર જિલ્લાના ધનુષ્કોડીમાં એક મધ્યમ પરિવારમાં થયો હતો. તેમના પિતાજીનું નામ જેનુલ્લબ્દીન કલામ હતું તેઓ એક હોડીના માલિક અને સ્થાનિક મસ્જિદના ઇમામ હતા. તેમના પિતા તેમની નાવમાં તીર્થયાત્રીઓને રામેશ્વરમ્ લાવવા-લઈ જવાનું કામ કરતા હતા.

તેમના માતાજીનું નામ અશિઅમ્મા જૈનુલાબ્દીન કલામ હતું, જે એક ગૃહિણી હતા.

તેમણે પોતાનો પ્રાથમિક તેમજ હાઈસ્કૂલનો અભ્યાસ પૂર્ણ કર્યા પછી સેન્ટ જોસેફ કોલેજમાંથી બી.એસ.સી.ની પરીક્ષા ઉત્તીર્ણ કરી. પછી તેઓએ મદ્રાસ ઇન્સ્ટિટ્યુટમાં એક વિજ્ઞાન અભિયાતનાં ૩૫માં સ્નાતકની શિક્ષા પ્રાપ્ત કરી.

ત્યારબાદ તેઓએ ૧૯૫૮ માં DRDO માં એક વૈજ્ઞાનિક તરીકે શરૂઆત કરી. પછી ૧૯૬૭માં તેઓ ઈસરો સંગઠનમાં સામેલ થયા અને ત્યાં SLV-3ના પ્રોજેક્ટ ડાયરેક્ટર બનાવાયા. તેમણે પોતાના જીવનકાળ દરમિયાન ઉપગ્રહ રોહિણીનું સફળતાપૂર્વક પ્રક્ષેપણ કર્યું હતું.

તેઓ ભારતને મિસાઈલનાં ક્ષેત્રમાં ખૂબ જ આગળ લઈ ગયા. તેઓએ ઘણી મિસાઈલ જેમકે અગ્નિ, પૃથ્વી, આકાશને બનાવી તથા તેનું સફળતાપૂર્વક પ્રક્ષેપણ કર્યું.

તેઓ માત્ર એક સફળ વૈજ્ઞાનિક જ નહિ પરંતુ એક સફળ લેખક પણ હતા. તેમણે કેટલાક પુસ્તકો લખ્યા જેમકે “ઈન્ડિયા ૨૦૨૦” તેમજ “વિઝ્સ ઓફ ફાયર”, “ફેલિયર ટુ સક્સેસ” અને આ ઉપરાંત અનેક પ્રખ્યાત પુસ્તકો લખ્યા. અબ્દુલ કલામનું જીવન અનેક યુવાનો માટે પ્રેરણા દેનારું છે.

તેમને પોતાના જીવનકાળ દરમિયાન અનેક પુરસ્કારથી સન્માનિત કરવામાં આવ્યા. જેવાકે “પદ્મશ્રી” એવોર્ડ, “પદ્મભૂષણ” એવોર્ડ અને એક ભારતીય માટે સર્વોચ્ચ પુરસ્કાર એટલે કે “ભારત રત્ન” થી પણ તેમણે સન્માનિત કરવામાં આવ્યા હતા.

તેમનું મૃત્યુ ૨૭ જુલાઈ ૨૦૧૫માં શિલોંગમાં એક ભાષણ દરમિયાન હૃદયરોગના હુમલાથી થયું હતું. “અબ્દુલ કલામના સિદ્ધાંતો તેમનું કાર્ય અને તેમનો દેશપ્રેમ હંમેશાં પ્રેરણાદાયી છે.”.



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*It is very easy to
defeat someone,
but very difficult
to win someone.*

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ચંદ્રપાલ પ્રભાતસિંહ પરમાર
ટી.વાય.બી.એસસી.

હર ઘર તિરંગા

“વિજયી વિશ્વ તિરંગા પ્યારા, ઝંડા ઊંચા રહે હમારા.”

કોઈપણ દેશ માટે તે દેશનો ઝંડો એટલે કે રાષ્ટ્રધ્વજ ખૂબ જ મહત્વપૂર્ણ હોય છે. દેશનો રાષ્ટ્રધ્વજ તે દેશની શાન હોય છે. તે જ રીતે આપણા ભારતનો ત્રિરંગો પણ આપણા સૌના માટે ખૂબ મહત્વનો છે. ત્રિરંગો આપણા દેશના લોકોને ગર્વની અનુભૂતિ કરાવે છે.

બધા ભારતવાસીઓએ પોતાના જીવનમાં ત્રિરંગો જરૂર ફરકાવ્યો હશે, ખાસ કરીને સ્વતંત્રતા દિવસ અને પ્રજાસત્તાક દિવસના અવસર પર. આ વર્ષે આપણો ભારત દેશ આઝાદીના ૭૫ વર્ષ પૂરા થવા પર તેની ઉજવણી કરી રહ્યું છે. આ ઉજવણીના ભાગરૂપે ભારત સરકાર દરેક ઘરને દેશની શાન-ત્રિરંગા સાથે જોડી રહી છે. આ વખતે ૧૫ ઓગસ્ટ, ૨૦૨૨થી ‘હર ઘર તિરંગા’ અભિયાન શરૂ થયેલ છે.

દેશમાં પાછલા એક વર્ષથી “આઝાદી કા અમૃત મહોત્સવ”ની ઉજવણી કરવામાં આવી રહી છે. આ ઉજવણી બધી જ શાળા, કોલેજ અને સરકારી તેમજ બિનસરકારી કાર્યાલયોમાં વિવિધ રીતે કરવામાં આવી. આ અભિયાનથી દેશના દરેક નાગરિકને જોડવાની કોશિશ કરવામાં આવી. આની સાથે “હર ઘર તિરંગા” અભિયાનને પણ જોડવામાં આવી રહ્યું છે. આ અભિયાનના માધ્યમથી દેશના ધ્વજને યોગ્ય સન્માન આપવાની દિશામાં પ્રયત્નો કરવામાં આવ્યા. આ અભિયાન અંતર્ગત ૧૧ થી ૧૭ ઓગસ્ટ સુધી સ્વતંત્રતા સપ્તાહ દરમિયાન પ્રત્યેક નાગરિકને પોતાના ઘરે તિરંગો ફરકાવવા પ્રોત્સાહિત કરવામાં આવ્યા.

“आजादी के ७५ सालों के कुछ इस तरह मनाना है
देश का गौरव तिरंगा हर घर में लहराना है।”

દરેક દેશને નક્કી કરેલો પોતાનો ધ્વજ હોય છે. “રાષ્ટ્રધ્વજ” એ રાષ્ટ્રની સ્વતંત્રતાનું અને ગૌરવનું પ્રતીક છે.” આપણો રાષ્ટ્રધ્વજ ત્રિરંગો છે. તેમાં કેસરી, સફેદ અને લીલો એમ ત્રણ રંગના પટ્ટા છે. સૌથી ઉપર કેસરી રંગનો પટ્ટો છે. તે વીરતાનું પ્રતીક છે, ત્યાગ અને બલિદાનની ભાવના વ્યક્ત કરે છે. તે આપણને આપણા દેશની મહામૂલી આઝાદીના રક્ષણ માટે બલિદાન આપવા તૈયાર રહેવાનું સૂચવે છે. વચ્ચે સફેદ રંગનો પટ્ટો છે. સફેદ રંગ શાંતિ અને પ્રેમનો સંદેશો આપે છે. સૌથી નીચે લીલા રંગનો પટ્ટો છે. લીલો રંગ હરિયાળી કાંતિનું પ્રતીક છે. દેશ સતત પ્રગતિ કરતો રહે એવી ભાવના તેમાં રહેલી છે. સફેદ રંગના પટ્ટામાં અશોકચક્ર છે. અશોકચક્ર બધા ધર્મો પ્રત્યે સમભાવ રાખવાનું સૂચવે છે.

હર ઘર તિરંગા અભિયાનનો મુખ્ય ઉદ્દેશ્ય ભારતનાં લોકોમાં દેશભક્તિની ભાવનામાં વધારો કરવાનો તેમજ રાષ્ટ્રધ્વજ ત્રિરંગા પ્રત્યે જાગૃતિ વધારવાનો છે. આ અભિયાન દરમિયાન લોકોને ત્રિરંગાના મહત્વ વિશે જાગૃત કરવાનો છે.

રાષ્ટ્રધ્વજ ત્રિરંગો આપણા દેશના ગૌરવનું પ્રતિક છે. હમણાં સુધી તે ફક્ત સંસ્થાગત અને ઔપચારિક સંમેલનો સુધી જ સીમિત હતો. પરંતુ આ અભિયાનના માધ્યમથી ત્રિરંગાને વ્યક્તિગત રીતે દેશના લોકોથી જોડવાનો પ્રયત્ન કરવામાં આવ્યો છે. જ્યારે દરેક વ્યક્તિએ રાષ્ટ્રના રૂપમાં પોતાના ઘર પર ત્રિરંગો ફરકાવ્યો એ એક રાષ્ટ્રના રૂપમાં આપણી પ્રતિબદ્ધતા દર્શાવે છે.

આઝાદીનાં પાછલા ૭૫ વર્ષો દરમિયાન ભારતે દરેક ક્ષેત્રમાં પ્રગતિ કરી છે. આથી આઝાદી કા અમૃત મહોત્સવની ઉજવણી એ દરેક ભારતીય નાગરિક માટે ખૂબ જ ગર્વની વાત છે. “હર ઘર તિરંગા” અભિયાન દેશભક્તિની ભાવનાઓને તેના ઉચ્ચસ્તર સુધી લઈ ગયું.

“હો જન્મ દોબારા ભારત વતન મિલે

ફિરસે વહી હિમાલય, ગંગામોચન મિલે...

મમતા ભરીયે ગોદી ફિરસે નસીબ હો...

ફિર ત્રિન રંગો વાલા હમકો કફન મિલે...

ભારતના લોકો માટે ત્રિરંગો અથવા રાષ્ટ્રધ્વજ ખૂબ મહત્વ ધરાવે છે. ભારતનો રાષ્ટ્રધ્વજ શાંતિ, પ્રેમ અને એકતાનું પ્રતિક છે. ભારતને આઝાદ કરાવવામાં ઘણા સ્વાતંત્ર્યસેનાનીઓએ જીવ ગુમાવ્યા. તે તેમના અમૂલ્ય બલિદાન દર્શાવે છે. અગાઉ ધ્વજ માટે ઘણી ડિઝાઇન અને રંગોનો ઉપયોગ થયો હતો. આજે આપણે જે ધ્વજનું જે સ્વરૂપ જોઈએ છીએ તે બંધારણસભા દ્વારા ૨૨

જુલાઈ ૧૯૪૭ ના રોજ અપનાવવામાં આવ્યું હતું. તેની ડિઝાઈન પિંગલી વેકૈયા દ્વારા તૈયાર કરવામાં આવી છે. અને તેમાં કેસરી, સફેદ અને લીલા ત્રણ સરખા પટ્ટાઓનો સમાવેશ થાય છે. ફ્લેગ કોડ ઓફ ઇન્ડિયા ધ્વજના પ્રદર્શન અને ઉપયોગને નિયંત્રિત કરે છે. રાષ્ટ્રધ્વજ “ત્રિરંગો” ભારતને સ્વતંત્ર અને પ્રજાસત્તાક દેશ તરીકે રજૂ કરે છે.

“હર ઘર તિરંગા” અભિયાનને મજબૂત બનાવવા માટે આપણા દેશના વડાપ્રધાન શ્રી નરેન્દ્રભાઈ મોદીએ લોકોને ટ્વિટરના માધ્યમ દ્વારા કહ્યું કે, “આજે આપણે એ તમામ લોકોના સાહસ અને પ્રયત્નોને યાદ કરીએ છીએ કે જેમણે તે સમયે ભારતના ધ્વજનું સપનું જોયું હતું, જ્યારે આપણે સંસ્થાનવાદી શાસન સામે લડી રહ્યા હતા. આપણે તેમના સપનાઓને સાકાર કરવા અને તેમના સપનાના ભારતનું નિર્માણ કરવા અમારી પ્રતિબદ્ધતાનો પુનરોચ્ચાર કરીએ છીએ આ અભિયાન રાષ્ટ્રધ્વજ સાથેના લોકોના જોડાણને વધુ ગાઢ બનાવશે.”

આપણા ભારત દેશના ત્રિરંગાનું મહત્વ સમજાવતા એક પંક્તિ વ્યક્ત કરું છું.

"The Indian flag is the symbol of
our freedom, national pride and history".

હર ઘર તિરંગા અભિયાનનો મુખ્ય ઉદ્દેશ્ય રાષ્ટ્રધ્વજ સાથેના આપણા જોડાણને વધુ ગાઢ બનાવવાનો છે. અગાઉ ધ્વજનો ઉપયોગ માત્ર સંસ્થાકીય કાર્યો અને ઔપચારિક પ્રસંગો માટે થતો હતો. ઘરો અને સંસ્થાઓમાં ધ્વજ ફરકાવાથી લોકોને આપણા રાષ્ટ્રધ્વજના મહત્વ વિશે જાગૃત કરવામાં મદદ કરી છે.

આ તહેવારને તમામ સ્વાતંત્ર્યસેનાનીઓને શ્રદ્ધાજંતિ તરીકે પણ જોઈ શકાય છે. એક રાષ્ટ્ર તરીકે આપણી પ્રતિબદ્ધતા દર્શાવવાનો પણ આ એક સારો માર્ગ છે. પરિણામે આપણા રાષ્ટ્રધ્વજ પ્રત્યે આપણું સન્માન વધશે. ઉપરાંત આ અભિયાન ભારતીય નાગરિકોને રાષ્ટ્ર પ્રત્યેની તેમની જવાબદારીઓની યાદ અપાવે છે.

ઉપસંહાર :

ભારતને આઝાદી મળ્યા પછીના છેલ્લા ૭૫ વર્ષોમાં દેશે ક્ષેત્રમાં અભૂતપૂર્વ પ્રગતિ કરી છે. આપણા દેશે વિજ્ઞાન અને ટેકનોલોજી, તબીબી વિજ્ઞાન અને અન્ય ઘણા ક્ષેત્રોમાં પ્રચંડ પ્રગતિ કરી છે. આપણે હવે વિકાસના ખૂબ જ ઉચ્ચ સ્થાને છીએ અને ઉજવણી કરવાનો આ શ્રેષ્ઠ સમય છે. આમ, આઝાદી કા અમૃત મહોત્સવની ઉજવણી એ એવી વસ્તુ છે, કે જેમાં દરેક ભારતીય નાગરિકને ભાગ લેવો જોઈએ અને ખૂબ જ ગર્વ અનુભવવો જોઈએ.

"Freedom in the mind, faith in the words, pride in our souls."

પંડ્યા સેજલબેન એસ.

એસ.વાય.બી.એસસી. (કેમેસ્ટ્રી)



એ તમે છો

કેમ છો ? કહેનારા ઘણાં મળ્યાં,
પણ મને મજામાં રાખનાર તમે છો.
આંખમાં આંસું કેમ ? એમ પૂછનારા ઘણાં મળ્યાં,
ધ્યાન રાખનાર તમે છો.
રેસમાં દોડતી વખતે હું સમજી,
આ બધા મારા છે.
જ્યાં ગતિ થોડી ઓછી થઈ,
ત્યાં સમજાયું કોણ મારા છે ?
એ સંઘર્ષમાં મારો હાથ ઝાલીને,
મને આગળ લાવનાર તમે છો.
રેસમાં જીતવા કરતાં,
કુશળતાથી દોડતા શીખવનાર તમે છો.
મારા પર હસનાર ઘણાં હશે,
પણ મને હસાવનાર તમે છો,
હંમેશા મારી સાથે રહેજો,
મારાં જીવનના સારથિ તમે છો.

જંદગી કેમ જવાય ?

ભાગદોડમાં ભૂલનાં તું કેમ જંદગી જવાય.
ઊગતા સૂર્યે તું દોડતો કામે, સાંજ પણ તારી કામના નામે,
કામમાં ને કામમાં, તારાં શોખ થોડાં ભૂલાય ?
ભાગદોડમાં ભૂલ નો તું કેમ જંદગી જવાય
ચિંતા, દુઃખ અને પરેશાની, એ તો આખી જંદગી રહેવાના,
તેમાંથી બહાર નીકળવાની કળા પણ, અનુભવે તને આવડવાની.
પૈસા કમાવવાની હોડમાં, તારી ખુશીઓને છોડીશ ના,
મોટા બનવાની લાલચમાં, માણસ બનવાનું ભૂલીશ ના
તારા માટે' ખાલી દસ મિનિટના કઢાય ?
ભાગદોડમાં ભૂલનાં તું કેમ જંદગી જવાય

ધ્વનિશા મહેતા
એફ.વાય.બી.એસસી.

પ્રેમતણું ઝરણું મારું

એ ઋણ કહું ઉપકાર કહું કે માયા તારી મારા પર
અવિરતજ શાશ્વત, શીતલ વહેતું પ્રેમતણું ઝરણું મારું
યાદ છે તને એ દિવસો જ્યારે
આખી રાત હું રડતી ત્યારે..
મુખ પર પ્યારું સ્મિત કરી, માથે સ્નેહથી હેત કરી
રાત આખી જાગીને બીજા દિવસે શાળા ભરી...
એ સ્મરણો કેમ ભૂલાય
મા તને કેમ વિસરાય !
એ લગ્ન પ્રસંગમાં જવા પર થાય છે તું તૈયાર
ત્યારે રુદની બૂમો રમઝટ થાય, છે મારી તૈયાર
શણગાર ને સૌંદર્ય છોડી આવે તું મારા માટે
ઘર આખું લગ્ન પ્રસંગે ભોજન અને ખાય મિષ્ટાન્ન
ખૂણે બેસી રોટલા ટીપી ખાય છે તું મારા માટે
હે જનની ! હે માતા મારી ! એ સ્મરણો કેમ ભૂલાય.
મા તને કેમ વિસરાય !
મમતાનાં તું દોર્યો. વાત્સલ્યનું વહેણ છે.
તારી બનાવેલી ભાખરીમાં અમૃતનો એ કેફ છે.
આજે પણ એ હેતનો નથી
જગતમાં કોઈ પર્યાય, હે જનની ! હે માતા મારી ! એ
સ્મરણો કેમ ભૂલાય !
મા તને કેમ વિસરાય

પરમાર માર્ગી અનિલસિંહ
એફ.વાય.બી.એસસી.



તમે એકદમ બદલાઈ ગયાં !

પ્રેમ રહ્યો કે જ્યાં સુધી,
તમારી હા મા હા મિલાવતા રહ્યા.
થોડું મારા દિલનું શું સાંભળ્યું ?
તમે તો એકદમ બદલાઈ ગયાં !
મને હતું કે તમને મારી કિંમત છે,
પણ ક્યાં જાણતો હતો, કે મારા કામની જ કિંમત છે !
તમારો બનીને રહ્યો,
ત્યાં સુધી શાબાશીઓ આપતા રહ્યાં.
પણ થોડો મારો શું બન્યો,
તમે તો એકદમ બદલાઈ ગયાં !
પ્રેમ હજી એટલો જ છે તમારા માટે,
એક ઈશારો તો કરો.
દુનિયાથી લડી જઈએ અમે,
માત્ર તમે હાથ તો ધરો.
અમે તો તમને 'મારા' માનીને જ રહ્યા,
પછી કહો મને, ખરેખર તમે બદલાઈ ન ગયાં ?

૨૧ મી સદીનો યુવાન

નોકરીમાં બેકાર છે, પણ પ્રેમમાં એકરાર છે
યુવાનોની પ્રગતિના આ સમાચાર છે.
ટપાલના થેલામાં લવલેટરનો તાર છે.
મોઢામાં પાન, અને હાથમાં સિગારેટ છે.
સની દેઓલથી પૂરો માહિતગાર છે પણ
ભગતસિંહ અને વિવેકાનંદથી અજાણ છે.
આજે કયું પિક્ચર છે, તેની ખબર છે.
પણ પૂછો કે લાઈબ્રેરી ક્યા છે તો લાચાર છે.
આ નથી કોઈ કિસ્સો કે શાયરી
આ તો ૨૧મી સદીના યુવાનન વ્યાખ્યા છે.

રાઠોડ હર્ષદ ભરતભાઈ
એફ.વાય.બી.એસસી.



તારાની જેમ ચમકવા માટે

તારાની જેમ ચમકવા માટે,
તારાની જેમ બનવું પણ પડશે ને !
ખાલી વાતો કર્યાથી કંઈ નહીં થાય,
મંજીલ તરફ દોડવું પણ પડશે ને !
તાપ સહ્યાં વિના તો,
તારા પણ ચમકતાં નથી
તો આપણે શું ચીજ છીએ ?
સફળતાને નિષ્ફળતા
બીજું કંઈ નહીં ખાલી,
મન સાથેની તજ-વીજ છે.
આ તજ-વીજમાં રણક્યાંથી
કંઈ નહીં થાય.
તેમાં જીતવું પણ પડશે ને !
સારો સમય તેના જ નસીબમાં
છે કે જે સમયને
નસીબના આધારે છોડતાં નથી.
મંજીલ પણ તેને જ મળે છે,
જે પોતાના હોંશને થાકવા દેતા નથી.
કેમકે ખાલી સપનાં જોવાથી કંઈ નહીં થાય.
ક્યારેક રાતની ઊંઘ છોડવી પણ પડશે ને !
મનના કઢ્યામાં ના રહીને,
કેટલીક ઈચ્છાઓ છોડવી પણ પડશે ને !



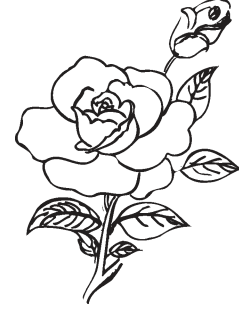
ધ્વનિશા મહેતા
એફ.વાય.બી.એસસી.

“લીમડો”

મને મુજ ગામનો લીમડો બોલાવે,
તેની યાદ નાનપણનાં દીપ પ્રગટાવે...
અડગ જાડું થડીયું કોણ તે હલાવે,
પર્ણોના ગુચ્છ તાજ બની શોભાવે.
ઘટાઓ તેથી તે તો નિરંકુશ ફેલાવે;
લચીલી ટક-ડાળો, લહેરાવે-ફરકાવે...
કપિની જેમ અમે ચળવળ ચડી જતાં,
ડાળોથી એને વળગીને ચોંટી જતાં,
લ્હાવાથી મળી લેતાં; ક્યારેક ડાળોથી પડી જતાં.
અનહદ પ્રેમ બયાન ન થાય જબાની,
મોજ-મજા-ફકીરી, ન'તા શોખ નવાબી,
ટોચે પહોંચવાનો ઝનૂન અને મિત્રો;
દિલનાં કાગળ પર વસી ગયેલા મિત્રો.
એ સુકૂનમય યાદોનાં જળ-ધાર;
યાતના-દર્દના દાવાનળ હોલાવે
મને મુજ ગામનો લીમડો બોલાવે
તેની યાદ નાનપણનાં દીપ પ્રગટાવે....
હસાવે, મલકાવે, કૃપા, કરુણા અને કોમળતાનાં
ભાવ તે શીખવાડે,
એક ઝાડ માત્ર હોવા છતાં, માણસાઈના બધા
ગુણ-ભાવ તે વરતાવે
મારા દિલનો તે નાદ-પુકાર,
મારા અંતરનો એક અવાજ મને પોકારે...
શહેરની ગલીઓથી તાણી લાવે,
મહેકતી ઘરની યાદ રૂડી અપાવે,
હે ગામ ! તારી માટી આકર્ષિ; સુખ-દુઃખનાં પૂર ઉરમાં વહી આવે...
મને મુજ ગામનો લીમડો બોલાવે,
તેની યાદ નાનપણનાં દીપ પ્રગટાવે....

હાવલ ચૌહાણ

એસ.વાય.બી.એસસી. કેમેસ્ટ્રી



મારી કવિતા...

ટેકનિકલ ખામીને કારણે
સૂર્યોદય નષ્ટ થાય
આકાશમાં શું ક્યારેય
આવું લખેલું પાટિયું દેખાયું ?
માંદો હોવાનાં કારણે
આજે ચંદ્ર નહિ દેખાય,
શું રાત્રે આવાં સમાચાર
ક્યારેય ગગનમાં ફેલેશ થયા ?
બિલાડીને ઘૂંટણમાં વા થયો છે,
એનાથી ઉંદર નહિ પકડાય
દરરોજ બે વાર મૂવ લગાડો
તો જ કંઈક થશે ઉપાય ?
હાથીને કેળાની લાલચ ના આપો.
હવે એ કેળા નહિ ખાય.
ભાઈ, ડાયેટિંગ ચાલે છે એનું
પછી કેટલું વજન વધી જાય ?
આ આખી દુનિયામાં બધાં
જીવો સરળતાથી જીવી જાય.
શું માણસનું જ આખું જીવન
બસ ફરીયાદોમાં પૂરું થાય ?
જીવનમાં જેટલી ફરીયાદો ઓછી
એટલા આપણે વધારે સુખી.
મોજથી જીવી લેવું સાહેબ.
કેમકે રોજ સાંજે આ સૂરજ નહિ પણ
આ અણમોલ જીંદગી ઢળતી જાય છે.

અક્ષિતા આર. મોદી

એફ.વાય.બી.એસસી.

એ જિંદગી છે...

મુશ્કેલીઓ તો ઘણી બધી આવે
પણ એમાં હસતાં રહેવું એ જિંદગી છે.
જીવનમાં હંમેશાં ખુશી નથી હોતી
દુઃખમાં પણ મજા કરવી એ જિંદગી છે.
ભણતરનો ભાર તો હંમેશા રહેશે
ક્યારેક મસ્તીમાં સમય પસાર કરવો એ જિંદગી છે.
ક્યારેક આપણું ધારેલું થતું નથી.
પરંતુ અણધાર્યાને આવકારવું એ જિંદગી છે.
અહીં કોઈ કોઈનું નથી હોતું.
છતાં બીજાને મેળવવાની ઈચ્છા એ જિંદગી છે.
લોકો ક્યારેય પોતાની ભૂલ ના જુએ.
બીજાની ભૂલ જોઈ અંદાજ લગાવવો એ જિંદગી છે.
જે વસ્તુઓને હું માનું છું,
એ તમે ના પણ માનો એ જિંદગી છે.
જેનાથી મને ખુશી મળે
એ વાતથી બીજું કાંઈ દુઃખી થાય એ જિંદગી છે.
ઘણું બધું છે આપણામાં
દ્વેષ, ઈર્ષ્યા, પ્રેમ, અભિમાન એ જિંદગી છે.
હું જે વાત કહું છું
મારા પર પણ લાગું પડે છે.
પરંતુ તો પણ હું કહું છું કદાચ એ જ જિંદગી છે.

સિંધા પ્રિતી જોરુભા
એફ.વાય.બી.એસસી.



બાકી જિંદગી આમ તો સરળ છે...

દુઃખ મને થોડાં સહાતા નથી,
બાકી જિંદગી આમ તો સરળ છે.
લખવામાં ભૂલ કરી કદાચ તેં,
નસીબના બે પાનાં વંચાતા નથી,
બાકી જિંદગી આમ તો સરળ છે.
તારું અસ્તિત્વ શોધવામાં વ્યસ્ત,
મને ખુદને મળાતું નથી,
બાકી જિંદગી આમ તો સરળ છે.
જન્મી લેવાય છે, જીવી લેવાય છે,
હસી લેવાય ને રડી પણ લેવાય છે.
બસ બધું કેમ થાય એ સમજાતું નથી,
બાકી જિંદગી આમ તો સરળ છે.

અક્ષિતા આર. મોદી
એફ.વાય.બી.એસસી.

વિસરાય નહિ

લક્ષ્યને ચૂકાય નહીં વાતને વિસરાય નહીં.
ભણવાની ઉંમર મોજ મસ્તીમાં જાય નહીં.
તીર નિશાના પર ના લાગે તો ચાલે
પણ ખરે ટાણે ધનુષબાણ હેઠા મૂકાય નહીં.
જીતનો જશ્ર હોઈ સ્વજનોની સંગે તો
વરને પચાવવામાં હૈયું શરમાય નહીં.
શિખર ઉપર પહોંચે ચાર હોય તારી રાહે છે.
અને પુસ્તકોનો પ્રેમ ક્યાંક બીજે ફંટાય નહીં.
જીત તારી હાથ વેંત આઘી છે. યાદ રાખ,
વ્યસનોમાં જિંદગી વિસરાય નહિ.

રાઠોડ હર્ષદ ભરતભાઈ
એફ.વાય.બી.એસસી.

બરેબર આપણે મોટા થઈ ગયા...

નાની એવી ઈજા થાય તોય રડતા, આજે મોટા ઘા સહન કરીને પણ હસતાં થઈ ગયા,
બરેબર આપણે મોટા થઈ ગયા.
બીજાનો હાથ પકડીને ચાલતા, આજે બીજાને ચાલવા માટે સહારો બનતા થઈ ગયા,
બરેબર આપણે મોટા થઈ ગયા.
મોટા હાસ્ય પાછળ સાચા આંસુઓ છુપાવતા થઈ ગયા,
બરેબર આપણે મોટા થઈ ગયા.
પરિવારની ઈચ્છાઓ પૂરી કરવા પોતાની ઈચ્છાઓને અવગણતા થઈ ગયા.
બરેબર આપણે મોટા થઈ ગયા.
બીજાને ખુશ રાખવાના પ્રયત્નો કરતા પોતાની ખુશીને ભૂલતા થઈ ગયા
બરેબર આપણે મોટા થઈ ગયા.
નાની-નાની તકલીફ માતાપિતાને કહેતા, હવે એકલાં જ તકલીફોને દૂર કરતા થઈ ગયા,
બરેબર આપણે મોટા થઈ ગયા.
માતાના ખોળામાં જઈને રડતા, હવે મિત્રના ખભે માથું મૂકીને રડતા થઈ ગયા,
બરેબર આપણે મોટા થઈ ગયા.
ખૂબ લડતા જેની સાથે, રમતમાં પહેલા હવે એ જ દોસ્ત સાથે સુખદુઃખની વહેંચણી કરતા થઈ ગયા,
બરેબર આપણે મોટા થઈ ગયા.
બીજાની જીંદગીની જવાબદારી લેતા લેતા પોતાની જ જીંદગીની જવાબદારી લેવાનું ચૂકતા ગયા.
બરેબર આપણે મોટા થઈ ગયા.
અણસમજુ બાળકની કાલ્પનિક દુનિયામાંથી આ સમજદારીની વાસ્તવિક દુનિયામાં ડગલુ માંડવા લાગ્યા,
બરેબર આપણે મોટા થઈ ગયા.

જિંદગી તારો રંગ...

કોણે જાણ્યો રે ઓ જિંદગી તારો રંગ,
જન્મથી લઈને મૃત્યુ જાણે કેટલાય રંગો બદલે છે તું.
કોઈક રંગ લાંબા સમય સુધી એમ જ રહે છે,
જ્યારે કોઈક રંગ ક્ષણભરમાં બદલાઈ જાય છે.
કોઈ તને પોતાની ઈચ્છાથી મેળવી પણ નથી શકતું,
કોઈ તને પોતાની ઈચ્છાથી છોડી પણ નથી શકતું.
ક્યારેક તું એક હરિયાળી વસંત બની જાય છે,
તો ક્યારેક એક સૂકી પાનખર.
ભલે તું આમ કહેવાય તો અમારી જિંદગી
પરંતુ ક્યારેક લાગે કે અમારી હોવા છતાંય તું અમારી નથી.
તારા અંત સુધી તો અનેક રંગ જોયા છે.
આ મનુષ્ય તેમ છતાંય મૂંઝાય છે, તારા સચા રંગની ઓળખાણ વિશે.
સમજી નહિ શકાય ક્યારેય આ રંગોની રમત,
એવો રે ઓ જિંદગી તારો રંગ.

મહેક પરમાર
એફ.વાય.બી.એસસી.

કૃષ્ણ કળયુગમાં આવે તો...

વૃંદાવનમાં બહુ ગાયો ચરાવી,
આ રસ્તા પરથી ગાયો તો હટાવી જુઓ
ગોકુળમાં માખણ-મીસરી ચોરીને ખાધા,
આ કોથળીનું દૂધ તો પી જુઓ
મથુરામાં વાંસળી ખૂબ વગાડી,
આ અત્યારનું વાગોલીન તો વગાડી જુઓ
દ્વારકામાં રામ બનીને ગયા,
અત્યારની ચૂંટણી તો લડી જુઓ.
વૃંદાવનમાં ગોપીઓને ઘેલી કરી.
કળીયુગની છોકરીઓ તો પટાવી જુઓ.

રાહોડ હર્ષદ ભરતભાઈ
એફ.વાય.બી.એસસી.

ગુરુ તમે જ આવજો...

ઘોર અંધારે ઊભો હોઉં તો,
ઉજ્જવલ પ્રકાશ બનીને આવજો.
મધદરિયે દિશા જો ખોઈ બેસુ તો,
મારો કિનારો બનીને આવજો.
ને તડકામાં ધગધગતો હોઉં તો,
ઘટાદાર વૃક્ષની છાયા બનીને આવજો.
અજ્ઞાનની ઓથે અટવાઈ પડું તો
જ્ઞાનની સાચી સમજ બનીને આવજો.
મંજીલના રસ્તે ભટકી પડું તો,
ભોમિયો બનીને સાથે આવજો.
ઉપર ઉડવાની તાકાત જો ખોઈ બેસુ તો
ઉડવાની અતૂટ તાકાત બનીને આવજો.
હર જનમમાં જો હું જ શિષ્ય હોઉં તો
તમે જ મારા ગુરુ બનીને આવજો.

અક્ષિતા આર. મોદી
એફ.વાય.બી.એસસી.

અમુક વસ્તુઓ છોડવામાં જ મજા છે...

કોઈને એકાદ-બે વાર સમજાવવું,
તો પણ ન સમજે તો
ફરી-ફરીને સમજાવવાનું છોડી દેવું.
થોડા જ લોકો સાથે ઋણાનુબંધ હોય છે.
એકાદ માણસ સાથે ના જામે તો છોડી દેવું.
આપણા હાથમાં કંઈ નથી એ અનુભવે સમજાય છે.
તો ભાવિની ચિંતા કરવાનું છોડી દેવું.
ઈચ્છાઓ અને ક્ષમતાઓ વચ્ચે અંતર વધે તો,
અપેક્ષાઓનો બોજો લઈને ફરવાનું છોડી દેવું.
પ્રત્યેકનાં જીવનનું ચરિત્ર, સંવેદના, ક્ષમતા
બધું જ અલગ છે, તેથી તુલના કરવાનું છોડી દેવું.
જીવન અનુભવોનો ખજાનો છે,
આખી જિંદગી નકામો બોજો લઈને ફરવાનું 'છોડી દેવું.
જાતે સુધરવાનું શરૂ કરવું,
બીજા સુધરશે એવી અપેક્ષા રાખવાનું છોડી દેવું.
સમયે ગરજ પડ્યે ગધેડાને પણ બાપ કહેવો પડે,
મારે કોઈની જરૂર નથી, એવા ગુમાનમાં રહેવાનું છોડી દેવું.
આજે તમારો દિવસ છે, કાલે ન પણ હોય,
માટે બીજાનું અપમાન કરવાનું છોડી દેવું.

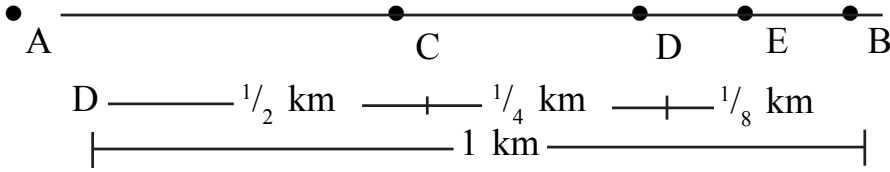
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Zero Paradox

Zero Paradox ગ્રીક ફીલોસોફર Zero of elea એ આપ્યો હતો. જેનું મૂળ નામ 'The Dichotomy Paradox' છે. તેનો અર્થ 'કોઈપણ વસ્તુને બે ભાગમાં વહેંચવું' એમ થાય છે. અહીં વારંવાર એક શબ્દ આવે Paradox ચાલો આપણે એનો ગુજરાતીમાં અર્થ સમજીએ. Paradox એટલે 'વિરોધાભાસ'. આપણે આ લેખ Zero આપેલા વિરોધાભાસ (Paradox) ની વાત કરવાની છે.

એક વખત બગીચામાં જતા હતા. ત્યારે તેમણે વિચાર્યું કે મારે બગીચા સુધીનું અંતર અડધું-અડધું કરીને કાપવું પડશે. તેમણે Zero બગીચા સુધીના અંતરને બે બરાબર ભાગમાં વહેંચ્યું. તથા તેમણે આ અંતર કાપવા માટે અમુક સમય લીધો. અડધું અંતર કાપ્યા બાદ વધેલા અડધા અંતરને ફરીથી તેમણે બે બરાબર ભાગમાં વહેંચ્યું. ફરીને તેમણે અમુક સમય લાગ્યો એ અંતર કાપતા. આ પ્રક્રિયા તેમણે ચાલુ રાખી તો દર વખતે તેમનાથી અડધું અંતર કાપવામાં રહી જતું હતું. આમ તે બગીચા સુધી કોઈ દિવસે પહોંચી નહીં શકે તથા તેમને આ માટે (અનંત સમય લાગશે. આ પ્રક્રિયામાં અંતર km, m, mm, cm માં ફેરવાતું હતું, પરંતુ દર વખતે અડધું અંતર બાકી જ રહી જતું હતું. આમ Zero બગીચા સુધી પહોંચે જ નહીં પરંતુ આપણે રોજંદા જીવન માં જોઈએ છીએ. કે આપણે જે તે સ્થળ સુધી પહોંચી જઈએ છીએ. અહીં ઉદ્ભવે છે સૌથી રસપ્રદ Paradox ચાલો, આપણે તેને સમજીએ તથા તેનો ઉકેલ મેળવીએ.



શરૂઆતમાં zero પોઈન્ટ A પર ઊભો છે. પોઈન્ટ A થી પોઈન્ટ B સુધીનું અંતર 1 km છે. તેને D વડે દર્શાવીએ તો $D = 1 \text{ km}$ થાય.

હવે તેનું અડધું અંતર zero કાપે છે. એટલે કે $1/2 \text{ km}$ કાપી પોઈન્ટ C સુધી પહોંચે છે. ત્યારબાદ તેનું અડધું અંતર એટલે કે $1/4 \text{ km}$ કાપી પોઈન્ટ D સુધી પહોંચે છે. આ બધા અંતરો કાપવા માટે તેનો અમુક સમય પણ જોઈએ છે. આમ, આ પ્રક્રિયા ચાલુ રાખીએ તો નીચે મુજબની આપણને અનંત શ્રેણી આપણને મળે.

$$D = \frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \dots \infty \quad (1)$$

સમયનો સરવાળો કરતા પણ આપણને અનંત સમય મળે. પરંતુ Zero તો નિશ્ચિત અનંત સમયમાં બગીચા સુધી પહોંચી જાય છે. ગણિતમાં અનંત શ્રેણીનો સરવાળો મળી શકે છે. ચાલો, આપણે તે જોઈએ.

સમીકરણ (1) ને (2) વડે ગુણતા,

$$\therefore 2D = 1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \dots \infty$$

$$\therefore 2D = 1 + D \quad (\because D = \frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \dots \infty)$$

$$\therefore D = 1 \text{ km}$$

જે પોઈન્ટ A થી પોઈન્ટ B વચ્ચેનું અંતર છે.

આ શ્રેણીનો સરવાળો કરતા આપણને એક નિશ્ચિત જવાબ મળે છે જે zero ઊભા છે ત્યાંથી બગીચા સુધીનું અંતર છે.

આ પેરાડોક્સ zero જે અડધું અડધું અંતર કરે છે. તેમા તે અડધું-અડધું કરતાં છેલ્લે તે અંતર સુધી પહોંચશે કે જેનાથી ઓછું અંતર દુનિયામાં કે અસ્તિત્વ ધરાવતું જ નથી. જેને આપણું પર્યાવરણ, આપણું કુદરત બીજી ભાષામાં કહીએ તો આપણા ભગવાન allow કરતા જ નથી. જેને પ્લાન્ક અંતર (planck distance) કહે છે. જેનું મૂલ્ય નીચેના સૂત્ર પરથી મળે છે.

$$l_p = \sqrt{\frac{hg}{c^3}} \approx 1.616199 \times 10^{-35} \text{ m}$$

આ અંતરે જેવા zero પહોંચશે એટલે તરત જ તે અંતર કાપી લેશે અને તે બગીચા સુધી પહોંચી જશે.

પંડિત કામીલ સુનીલભાઈ

એફ.વાય.બી.એસસી.



हवाएं

जब जब मेरे जहन में तूफान उठता है,
तब तब मैं तलाश करती हूँ
तेज हवाओं की
ठहर जाती हूँ इन्ही हवाओं के सामने
इसी उम्मीद के साथ कि कुछ वक्त
के लिए ये मुझे भी अपने साथ बहा ले जाए ।
जब भी ये हवाएँ मेरे गालों को छूती हैं;
तो लगता है कि मानो कोई मेरे आंसु पोंछ रहा है ।
जब ये हवाएँ मेरी आँखों को चूमती हैं
तो लगता है कि वो मेरा दर्द पी रही हैं ।
जब ये हवाएँ मेरे कानों के पास से गुजरती हैं;
उस वक्त मेरे अंदर का शोर थम सा जाता है ।
जब भी ये मेरे जिस्म को छू के गुजरती हैं;
तब मैं कोशिश करती हूँ । नकाम कोशिश,
इन्हें अपनी बाहों में भरने कि, अपने सुकून के लिए ।
इसलिए ठहर जाती हूँ मैं इन हवाओं के सामने
वो कहती हैं मुझसे कुछ वक्त के लिए रुकना
मुनासिब है पर थमना बिलकुल नहीं ।
बढ़ते रहना और मैं तो हूँ ही तुम्हारा सुकून.

मानसी डी. बलवा

टी.वाय.बी.એસ.સી.મેથ્સ

अगर सपने बाते करते तो

मैं और मेरी सहेली हररोज बाते करते है
 और अपनी बातों में खो जाते है ।
 बाद में उसे पता चलता है
 कि मैं सपना हूँ हकीकत नहीं । और वो उदास हो जाती है ।
 मेरी सहेली मुझे कभी खुली आँखो से देखती है,
 तो कभी नींद में देखती है ।
 बाद में उसे पता चलता है,
 कि मैं सपना हूँ हकीकत नहीं । और वो उदास हो जाती है ।
 वो कभी मुझ में खुद को उडता हुआ देखती है,
 तो कभी अपने राजकुमार से मिलती है
 बाद में उसे पता चलता है,
 कि मैं सपना हूँ हकीकत नहीं । और वो उदास हो जाती है ।
 वो कई बार मुझमे अपनी कामयाबी के पर्वत चढता देखती है
 और कोई बार खुद की मर्द के साथ बराबर करता देखती है ।
 बाद में उसे पता चलता है,
 कि मैं सपना हूँ हकीकत नहीं । और वो उदास हो जाती है ।
 काश मैं सपना ना होकर हकीकत होती,
 तो कभी मेरी सहेली उदास ही ना होती ।

इशा अ. पटेल

टी.वाय.बी.एस.सी.केमेस्ट्री

शायरी

१. एक शख्स हैं, जो मेरे लिए भगवान से भी बढ़कर हैं, जिसे मेरी आँखो को पढ़ना आता है ।
 हा वो मेरी माँ हैं, जिसे मुझे हरवक्त कैसे खुश रखना हैं वो आता हैं ॥
२. खाक से उठा कर मुझे फलक पे बैठा दिया, एक कागज के ढेर जैसा था अच्छी किताब बना दिया ।
 मुझे एक अच्छा इंसान बना दिया, और खुद की जिंदगी मे बारे मे कभी सोचा नहीं माँ, पर मेरी जिंदगी को खुशनुमा बना के रख दिया ॥
३. अगर नहीं हैं इस हाथ में कामयाबी के लकीरे, तो मेहनत करके थे लकीरें बना दूँगा ।
 और जो अभी ख्वाब हैं, उसे जल्द ही हकीकत बना के रख दूँगा ॥
४. की सिर्फ जुबां पर ही नहीं, इस दिल में भी आग चाहिए, जिंदगी में कुछ करने के लिए मेरे बेटे, दिन रात एक करने चाहिए ।

Pandit Kamil Sunilbhai

F.Y.B.Sc.

“मुसाफिर” (गजल)



सीधी राह होते हुए भी भटके मुसाफिर,
दिल जलाते हुए चले तो चमके मुसाफिर ।
कण-कण पाथर-पेड़ सब जाने है मुझको,
इनसे जाक पूछो चल रहे कब के मुसाफिर ।
कब के ठहरे हुए हैं एक ही ठिकाने पर,
लगतता भूल गए मुक़्दर अपने मुसाफिर ।
तकलीफ़ो ने कर के रख दिया लहू-लुहान;
तो लहू में नहाकर वापस उठ चले मुसाफिर ।
सूरज को देखते-देखते जली नई आँखे,
पर गुमान में फेरे नहीं नजरे मुसाफिर ।
हरियाली हम-सफर कभी वो भी अनजान,
कभी गुलमोहर तोल कभी पतझड़ के मुसाफिर ।
एक मंजर आया कोई राह नहीं थी आगे,
फिर वहां बनाते चले आए सड़के मुसाफिर ।
हृदय से निकला तो हृदय तक जाएगा सही,
सुखन को, हृदय-कलम से लिखते मुसाफिर

हावल चौहाण

अस.वाय.बी.अससी. (केमेस्ट्री)

अगर मे ये सोचूं तो सोचता हूं

अगर मे ये सोचूं तो सोचता हूं कि
ये जिंदगी एक खेल है तो खेल क्या है ?
ये खेल है जो अच्छाई का, बुराई का; तो हिसाब क्या है ?
हिसाब जो मे लगाने बैठा तो सोचा कि
इसमें नियम कौन से होंगे ।
के नियम जो पाप और पुण्य कि परिभाषा बोलता है !
तो ये पाप और पुण्य क्या है ?
इसी असमंजस कि गुथीओ में उलजा
हुआ ये खेल एक काल्पनिक रेखा (समय) के इर्द गिर्द गुमता है ।
तो इसमे काल्पनिक क्या है और सच्चाई क्या है ?
ओर ये काल्पनिक रेखा अनंत है जो मे मान लु.
तो इसमे मे कोन हूं और आप कहां है ?
अगर मे ये सोचूं तो सोचता हूं



परमार मार्गी अनिलसिंह

अस.वाय.बी.अससी.

Youth In Indian Politics

We all know that India is a democratic country. Today, India has the largest number of youth. A youth group is a class that consists of people from 14 years to 40 years of age.

Today India has the largest number of people of this age group in the country. This is a class that is most powerful physically and mentally. Those who make every effort for the development of the country and their families. The backbone of India is the youth. The youth plays the main role to make the country. The future of any country becomes beautiful by the youth of the country. But today Indian youth has become selfish, he does not think about the progress of the country but only thinks about himself. They are getting enough employment opportunities, but sadly, no matter how much the youth of today has been educated, they are forgetting their rights and responsibilities towards the country and family day by day.

Today the youth of India want to touch the heights but they are forgetting that they are cutting their own roots to touch those heights. The youth of India is ready for a new youth revolution. Sadly, some are stopping them. The youth of India try to settle abroad rather than contribute to India. Today's youth are only target oriented. This means that the parents of today do not want their son or daughter to contribute to the social work of the country in addition to their work, because the present day environment is something like this. It has become such that everyone is only engaged in making their own future.

Today in the politics of India, only the elder are dominated and only a few young people are in politics. One of the reasons for this is that the political atmosphere in India is deteriorating day by day and true politicians have been replaced by people who are greedy for power and wealth.

In politics, the feeling of patriotism has been replaced by familism, casteism and sect. The way the tales of corruption of politicians are coming out every day, indifference towards politics is increasing among the youth of the country.

Now in India's politics, leaders like Subhash Chandra Bose, Shaheed Bhagat Singh, Chandrashekhar Azad, Lokmanya Tilak are no more today who can communicate a new revolution in the mind of the youth with his senses and enthusiasm. But sadly, after independence, these leaders who cannot protect themselves properly, will they teach the young people about patriotism or revolution?

This is the reason why the youth of India are not looking at this country as their own and are looking for their home in other countries. They want to get away from the political power here. So they think many times before taking any concrete step. Even a youth who votes in India does not trust his / her chosen candidate. The youth will have to expand their thinking beyond communalism and politics. The youth will have to move forward in this matter and in any such emotion, you have to make decisions by thinking rather than drifting.

The youth of India is really sensible. This is a really good and positive thing which is a big thing for a country like India.

There are other things like unemployment, bribes to get a place in government jobs, these are also reasons to take young people away from the country. That is why we have to guide our youth from time to time. So that they can identify right and wrong and can help in taking their country forward and on the path of progress.

How to become the best version of yourself in life becomes a lot more beautiful when you are constantly evolving. A meaningful life is a blessing and it pushes you towards excellence. We need to evolve, transform and push the human race forward. We all want to become the best version of ourselves and give our best gift to the world.

Here are 5 tips to help you become the best version of yourself in 2023 and ever.

1. Self-authoring
2. Accept your past
3. Be mindful
4. Perception is selection
5. Choose happiness

What kind of government pressures are being put on the freedom of social media platforms, only half the information is available to the public right now. The debate continues in and outside the courts over whether the government should have control over the content that is broadcasted on social media platforms. The whole world knows that the former US president's Twitter handle and Facebook accounts were suspended soon after the January 6 attack on the US Parliament in Washington. Facebook also recently reaffirmed its action. Trump was accused of using social media platforms to incite his supporters to incite violence against the Biden government.

Therefore, there is an apprehension that these rules may be used to suppress the voices of protest and target the opposition. However, the issue is well known all over the world that social media platforms are deliberately and unknowingly giving an opportunity to people to spread misinformation. So their business model needs to be reviewed. It also has to be seen whether they implement the same policies (Social Media Business Model) in every country or have different standards for human rights in different places. These are serious questions. But the government of India has failed to get everyone's confidence in the seriousness of its action. Are you ready to contribute to Indian politics ?

Twinkle D.Singh
S.Y (BCA)



The Secret to Self-Control

If you are trying to avoid digging into that bag of chips after dinner because you want to lose a few pounds and you succeed Monday and Tuesday nights then you surrender to temptation on Wednesday by eating again, your failure outweighs your success. You have taken two steps forward and four steps back. This is typically defined “Self-Control” by psychologists, the ability to control behaviours in order to avoid temptations and to achieve goals.

If you are overweight, a smoker, or an addict, you have been told that it is because you lack self control – may be even that you are a bad person. An idea is fixed in the society that a little bit of discipline would solve all our problems, but is it true?

Recent research however shows something different. Why some people have extraordinary self control and why not other. It is found that “disciplined” people are better at structuring their lives in a way that does not require extraordinary will power and self control. The people with the best self control are typically the ones who need to use it the least. The way to improve this quality is not by wishing you were a more disciplined person, but by creating a more disciplined environment.

Once a habit has been formed, the urge to act follows whenever the environmental cues reappear. Let me give an example when Patty Olwell, a therapist from Austin, Texas, started smoking, she would often lit up while horse riding with a friend. Then she quit smoking and avoided it for years and for that she also stopped horse ridding and you know what? She was quite successful until after many years she hopped on a horse again and found herself carving for it. So the cues were still inside her but she just had not been exposed to it for a long time.

Researchers refer to this phenomenon as “cue inducing wanting”: an external trigger causes a compulsive craving to repeat a bad habit. Once you notice something, you begin to want it. This process is happening all the time, often without us realizing it. Scientists have found that showing addicts a picture of cocaine for just 33 milliseconds simulates the reward pathway in the brain and sparks desire.

You can break a habit, but you are unlikely to forget it, Even if they go unused for quite a while. And that means that simply resisting temptation is an ineffective strategy. One of the most practical ways to eliminate a bad habit is to reduce exposure to the cue that causes it. Thus instead of summoning a new dose will power whenever you want to do the right thing, your energy would be better spent optimizing your environment. This is secret to self control.

Rudra Jaganiya
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Finding Happiness

The German Philosopher Sctupenhaues once asked the question, 'How can we determine whether a man is happy or unhappy ?'

He defined true happiness as the complete satisfaction of all desires.

So we could describe the happiness of a person mathematically as "

Happiness = Total number of Desires. Say we have ten desires and five are fulfilled, then we have fifty percent happiness.

If ten are fulfilled, we have a hundred percent happiness. The more desires we have, the harder it will be to fulfil them all, so the less happy we will be. Happiness is inversely related to the numbner of desires. but what happens when we have no desires at all ? The denominator becomes zero then anything divided by zero is indeterminate, so if we have zero desires, our happiness will be limitless.

In this state of no desires, we do not expect anything, even from our belief. When we don't expert anything, we don't play games or manipulate others. This has an important effect on how. We are our destiny. Thinks for a moment about how we human beings destroy our inner condition and our humanity. It all starts with desires. When desires are not fulfilled, there is disappointment. Disappointment leads to anger; anger makes us lose our balance; once it happens, it alters mental equilibrium, fear developes, so we are destroyed and lose our humanity.

Whatever happens in life, either the results are favourable or not favourable. Generally when the results are favourable we are happy when the results are not favourable we are disturbed. If an action gives good results and it keeps happening, we develop a happy disposition. But what happens to a person who has disappointment ? That person generally stops trusting.

So how can we become happy under all circumstances because that is the ultimate happiness. In order to have limitless happiness, we need to minimise our desires, from more to less. When we are able to make peace with ourselves that way, we will feel, 'Whatever happens, I am happy', Cleaning of impressions at the end of each day also helps, We are able to erode the pull of desires and keep a joyful disposition.

Now is it possible to a lead a life without any desires ? No one can live without desires. It is how we associate our desires with emotions that makes the difference. For example children need to have toys for their development but that can lead to the desire to have more and more toys. It is okay for a child to play with toys, but when adults are still playing with remote cars or Barbie dolls, it is foolish. So even for the same person at different ages, their level of emotional maturity will affect how desires manifest.

It is perfectly okay to have great choice and dream of choosing best careers, desire to marry the right person, want to succeed in business to support family, want to work in a good environment, and to want a good education in a reputed university. For ex: students particularly aim to study at IIT Top universities after bachelors.

If desires can be translated into aspirations, then they are evolutionary. It is when desires drag us down into the whirlpool of multiple desires that heaviness is created in our system when desires are aspirational it leads to 'becoming' and 'being', as opposed to only having and fulfilling desires.

So how do we solve, the riddle of living with desires and not letting them affect us ? There is no easy answer, but a state of contentment will prevail in us due to our practice. As a result, we are able to have aspiration or desires without getting carried away with pulls and pushes of 'have' and 'have nots'. The key lies in arriving at a state of contentment when there is totality of involvement without ego, or arrogance in Whatever we are doing, there is joy and contentment.

Vohora Saniya Y.
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Literature-The mirror of life

The literature of any nation is the image that reflects the sincere ideas, so we can call it the mirror of life which reflects the writers. Any written or spoken material is literature. Literature is believed to be the message of a writer's experience of life. It helps us to understand those things that are not easily understood which includes pain, hatred, love, death, sacrifice, mood, human nature and most importantly truth. It also helps to understand the power of Language. The famous pioneer of literature, Plato sums it up as : "Literature is the mere imitation of life". He expresses literature with the real life like we learn our mother tongue in our mother's Lap. There are two kinds of people in every society.

Educated and uneducated. Educated people can easily express their thought by speaking in the language of Literature. On the other hand, uneducated people speak the language but cannot express their thoughts in writing. Thus, literature is a reflection of life and society, the artisan of building people. And so we can say that :

"Illiteracy is the Poison And a book is its Antidote". Which means that a person who is not literate must read books because, "Education is the most powerful weapon which you can use to change the world".

Literature not only about studying. It also reflects manners, habits, our behaviour and respect to elders. Many people also express their talent and their sincere ideas in the form of poetry, stories and novels Just as an artist expresses his art with the touch of a brush. Some may also release their sadness and anger with the help of this talent and now a days almost every country including India is developing and progressing a lot in the field of literary and this vision of horizon discovers new paths which leads to success. This is the greatness of the country and the nation. It is said that, one literate person in a family can change his generation in a good way; and on the same side an illiterate person may achieve wealth, but will not give that manners to his generation which literate person can.

To conclude it can be said that:

"Learning gives creativity, creativity leads to Thinking

Thinking provides knowledge. And knowledge makes you great".

So work hard until your signature changes to autograph, this marks your "Success".

Shiza S. Marsuri
F.Y.B.Sc.

Are You Responsible about Yourself ?

Hearing the question aren't you curious about yourself that "Am I responsible about myself?"

After grade 12th our college life starts. What our cinema industry teaches us? That the college life is all about enjoyment and freedom. But if you carefully observe the pattern of life, you observe that the actual life starts from the college. The studies and knowledge that you gain upto grade 12th is all come to use in college life. Don't you think the actual fight of life actually starts from college. This is that phase of life when you get the chance to decide your career path rather than the predefined pattern. Then how is it possible that at this particular phase of life we get the full time for only lavishness. You know that, our current generation is facing the problem like "Time Poverty."

Then the question arises, what is time poverty ?

Do you ever feel that you have to do a lot of work but you don't have enough time? If yes, then you are a victim of time poverty. If you don't have enough money, then there are some things you cannot buy. Similarly, if you have limited time then you have to say No to certain things even those things that makes you happy. So, what can we do? The very simple method is to divide your tasks in three parts Rocks, Pebbles and Sand. Rock signifies big and important tasks . Pebbles signifies the small and important tasks. And Sand signifies small and unimportant tasks. Your day is like the empty jar, if you first fill sand in the jar then it'll get quickly filled. And you won't have time for the important tasks. So the trick is to start with the rocks, then pebbles and then sand. By this logic you can achieve more in limited time After knowing this also, it depends on person to person that how they uses their time.

For example, According to Jay Shetty "The most successful people in the world HEALTHY, WEALTHY OR WISE choose education over entertainment and the most unsuccessful man in the world UNHEALTHY, UNWEALTHY OR UNWISE choose entertainment over education. So I made my mission in life to build entertainment as first content with the educational heart." This is also one technique to follow your dreams and make it more useful.

What the youth is doing in their whole day? If we put in simple sentence spending time in the social media. To post particular photos, to watch each moment, share memes without knowing, is it really worth or not ? Due to lack of knowledge of using social media or cybercrime rules, they unknowingly become the victim of the cyber-crime. Always remember, "Don't Be Mean behind the Screen"

BEFORE YOU POST ASK THESE QUESTIONS TO YOURSELF :

Is it true? Is it hurtful? Is it illegal? Is it necessary? Is it kind?

Our youth now a days started to give up in the silly cases just like failure in the exam, they don't understand that the life doesn't stop due to one failure. Not only that they don't know how to react in the particular situation or how to respect their elders. What do you think? Why is it happening?

Due to watching and spending more time in the useless sites, apps or videos we can't say that social media is the bad thing. As every coin has two sides, social media also has two sides. If we don't know how to use, whose content is useful as well as whose content is useless then it will push yourself in the black hole. Be responsible to your own actions and try to get moral from that rather than give up or blaming others.

As the youth and future of the country, our prior responsibility is to become the responsible citizen as well as the responsible youth.

Swathy Sunil
S.Y.BCA

A Student's Perspective

Life's challenges are different when you are a student. It is the most crucial and amazing part of one's life isn't it? Being a student isn't only about focusing on academics or your future. It's also about balancing your social life, health, and relationships. Sometimes, peer pressure can push you to make bad decisions. Other times, your years as a student will be your most memorable one.

A person spends around a quarter of his/her life as a student. We learn, we teach, we grow ourselves. It starts from age five where we start to explore things, day by day we go through different stages, reaching the new milestone. Being a student means you should be whole all as the society wants you to and parents too. Not only at school but also in the playground you are playing at, the place you are sitting at, in the room you are living at i.e. a well discipline, talented and an all rounder. One common thing a student always came to hear that "Is this the way how a student be?" and that moment we just murmur "so what student? can't we do mistake, talk crazy, act weird or be fool....". If you are a student then remember you are always going to be judge by your mark sheet and it hurts, feels like "may I am not the perfect one, always fail to reach those expectations even working hard." People used to say us irresponsible all though, carrying a bag full of expectations of parents and society not prioritizing yourself.

In the fast growing era and tough competition it won't be wrong to say that students are becoming like machines. But these machines wants understanding, they wants parents who listen their problems instead of hitting back with their logical thoughts or just considering them as a character of drama who got influenced by those and overacting. Sometimes it feels like exhausted through all the things going around like always being compared by others students, looking others having so good relationship with their parents, the thought of reaching to goals and many and all want a escape where it can be buried to feel free even for a while.....BUT THAT'S NOT POSSIBLE THING. We always stood up and hits harder and it goes on..

By Divya Sharma
F.Y.BCA

"Education is the passport to the future, for tomorrow belongs to those who prepare for it today." — **Malcolm X**

"You can't have a better tomorrow if you're still thinking about yesterday."
— **Charles F. Kettering**

My Favourite Indian Physicist

"The true laboratory is the mind, where behind illusions we uncover the laws of truth".

– **Jagdish Chandra Bose**

On 30th November, 1858, a boy was born at Munshiganj, who grew up to be one of the most prominent scientists of the Indian Subcontinent. J. C. Bose received his early education from a Bengali Medium School, as his father considered that, it was important for him to learn in his native language and culture before learning in English. Later he joined St. Xavier's School, in Kolkata. In 1875, he passed the entrance examination of the University of Calcutta and graduated with a BA degree, in 1879. He also received a B.Sc. from the University College of London in 1884.

J.C. Bose has made significant contributions to various branches of science. He was a botanist, physicist, biologist and a writer too. One of his notable inventions was that of rescograph, a device for measuring growth of plants. His major contribution in the field of biophysics was the demonstration of electrical nature of the conduction of various stimuli, in plants. He was also the first to study the action of microwaves in plant tissues and corresponding changes in the cell membrane potential. He researched the mechanism of the seasonal effect on plants, the effect of chemical inhibitors on plant stimuli and the effect of temperature.

Bose became interested in radio following the 1894 publication of the work of a British physicist Oliver Lodge, who studied electromagnetic radiation. Bose started working towards understanding the nature of radio microwave optics. His research work had an influence on other inventors who were trying to develop radio as communication medium. He was also the first to use a semiconductor junction to detect radio waves and he invented various microwave components. In May 1895, Bose submitted his first scientific paper "On Polarisation of electric rays by double refracting crystal," to the Asiatic Society of Bengal. Bose during his research, had managed to reduce the waves to about 5 mm wave-length. In a public demonstration in 1894, he ignited gunpowder and rang a bell at a distance using millimeter range wavelength microwaves. He noted the potential for wireless communication by radio waves.

Following his contributions in the field of radio science, there has been a lot of progress in wireless communication, due to which communication has become faster and easier.

He was a true gem that did not get the recognition it deserved. Physics and the world will always be indebted to him and his works.

Krishna Arjun Achari
F.Y.B.Sc.

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"I think it's possible to ordinary people to choose to be extraordinary."

— **Elon Musk**

Air Pollution and its Control

The burgeoning population of human and bovines and rapid industrialization have resulted in massive exploitation of natural resources and pollution. As far as Indian sub-continent is concerned it could be concluded that the management of waste water-gas, liquid and solid need to be pursued at the national and state levels through legislation adoption of appropriate technology and impact analysis on the environment. The concern for environmental protection from the release of wastes is now being felt at all levels. Suitable compromise through consensus need to be promoted for promoting development with at least harmful impact on the environment and biota.

Advances in science and technology have also a risk in lowering in quality of the environment. Technology has brought about progress in many spheres of development but in the process, also contributed to pollution of water, air land and monuments. Further deterioration in the environment and well-being of the community could be minimized. provided professionals involved in developmental activities recognize the need for safeguarding the environment.

India is in advantageous position as it is in the beginning stages of industrial development. It should be possible to avoid the pitfalls faced by the developed countries and take preventive measures at the initial stages of development. Efforts should be made to control pollution and prevent environmental damage consistent with economic growth so that the concern for environment and economic growth could go together. "The air is the Guru, water is our father and the greatest earth our Mother"

We can live without food and water for days together but not for only five minutes without air. On an average a man needs 301bs of air every day, so air pollution is indeed of great immediate concern than any other aspect of pollution. The dry air has concentration of certain gases which are naturally present in the atmosphere. Whenever the balance of the natural composition of air is disturbed and have an adverse effect on a man and environment it can be termed as POLLUTION OF AIR. Thus. air pollution is the accumulation of any substance in the air in sufficient concentration to affect the man, animal. vegetation or other materials. Pollutants may occur as solid particles, liquid droplets, gases or in various combinations of these forms. The Air Act defines air pollution as the presence in the atmosphere of any air pollutant which means an solid, liquid or gaseous substance present in the atmosphere in such concentration as may be or tend to be injurious to human being or other being creatures or plants or property or environment.

Pollutants may be directly emitted in to the atmosphere from the identifiable sources and include such as carbon particles, metallic dust, Fluorides, cigarette and industrial or vehicular smoke. Pollent and sulphates, course particles, soot, Sulphur, nitrogen compounds in forming various types of smog, organic compounds, halogen compounds and radioactive compounds are called PRIMARY POLLUTANTS. Pollutants may also be produced by interaction among two or more primary pollutants or by reaction with normal atmospheric constituents with or without aid of sunlight such as photochemical smog formed when nitrogen oxides and hvdrocarbons

emitted by automobiles and other sources undergo photochemical reactions and produce ozone and other agents which are chemical oxidizer.

Sources and emission of few Air Pollutants

Category	Example	Important Pollutants
Fuel	Power plants	Sulphur and Nitrogen
Burning	Domestic burning	Oxides
Transportation	Cars, Airplanes and Railways	Carbon monoxide, Nitrogen oxides lead, smoke, organic vapors, odors etc.
Chemical plant	Petroleum refineries Fertilizers, Paper mills Cement	Hydrogen Sulphate, Sulphur, Fluoride, organic vapors and dust

SOURCES OF AIR POLLUTION

The major source of air pollution is transportation and next in order is industry and power generation. The major air pollutant causing damage is Sulphur dioxide and others are ozone. peroxyacetylnitrate(PAN), Nitrogen oxide, fluorides, particulates etc. while in the world 300 million tonnes of pollutants are emitted annually in air. India contributes 10 million tonnes in the form of particulates Sulphur dioxide, carbon monoxide, hydrocarbons etc. In fact, air pollution in India occurs in isolated pockets because industrial production is concentrated in 8-10 large cities. Chem bur is regarded as a “Gas chamber”, which on account of concentration of oil refineries fertilizer plant and huge industrial complex; is perhaps the most polluted area in India.

According to one of the scientist, the Mathura refinery will increase acidity in the air from 100 to 200 micrograms per cubic meter, and is likely to cause ‘stone cancer’ to the Taj Mahal as also pose a threat to life.

EFFECTS OF POLLUTION

The effects of air pollutants on man are varied. When carbon monoxide is inhaled it displaces the oxygen in the blood and reduces the amount of oxygen carried to the body tissues. At levels commonly found in city air mental performances can be dulled and reactions of even the healthiest persons can be slowed making them more prone to accidents. The Gas is believed to impose an extra burden on those already suffering from anaemia, disease of the heart and blood vessels, chronic lung conditions and over reactive thyroid.

Sulfur dioxide can cause temporary and permanent injury to the respiratory system, irritating the upper respiratory tract, lung tissues. Photochemical oxidants result in eye irritations and studies indicate that nitrogen oxides are harmful to human health specially increasing children susceptibility to flu.

Many other pollutants are growing public health worry even though they may not constitute immediate and direct threats. Studies suggest that lead levels found in the bodies of the urban people may interfere with their ability to produce blood. It is being debated

whether the lead levels in environment are of themselves dangerous to health or whether the major danger from them is an increased likelihood of further concentrating lead in some food chains leading ultimately to toxic doses for man or other organisms.

Air pollution has inflicted widespread damage on plant life, buildings and materials. Air pollutants also damage man's durable products; steel corrodes 24 times faster in urban industrial centers than in rural areas where much less Sulphur bearing coal and oil are burnt. Sulphur oxides are also accelerating the erosion of statutory buildings throughout the world; particulates not only settle as dirt but also speed up the corrosive action of other pollutants as ozone accelerates the cracking of rubber.

CONTROL OF POLLUTION

Pollution control consist of the legal, institutional, scientific and technological arrangements established to avoid or mitigate such excesses in the environment. It can be accomplished by containing pollutants at the source by devising new technologies of manufacture that eliminate or reduce pollutants and by reusing materials and commodities through reprocessing and resource recovery.

Except for highly toxic substances or for substances concentrated by nature (accumulation in ground water or concentration in the food chain) pollution control does not mean the elimination of all substances from the air, water or and. It is notable that even in the proper uses of air and water, impurities are added, though only in amounts that permit renewal of purity.

Even before man, nature put great quantities of material in to the environment and still it does volcanoes and dust storms. Solid material in air, such as salt particles or dust, are essential as the nuclei for rain drops. Yet when cities add massively to the amount of this nuclei, the excess may diminish rain fall because of the drops that form are too small to fall rain. Because of the multiple uses of air, water and land, the tolerable amount or level of pollution varies.

Dr. Rajesh Parab
Chemistry Department
Associate Professor

"The man who does not read books has no advantage over the one who cannot read them." — Mark Twain

"Education is the most powerful weapon you can use to change the world."
— **BB King**

"Learning is never done without errors and defeat." – Vladimir Lenin

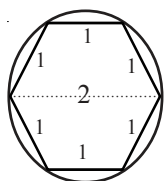
Efforts for the value of π

Hello Everyone !!!

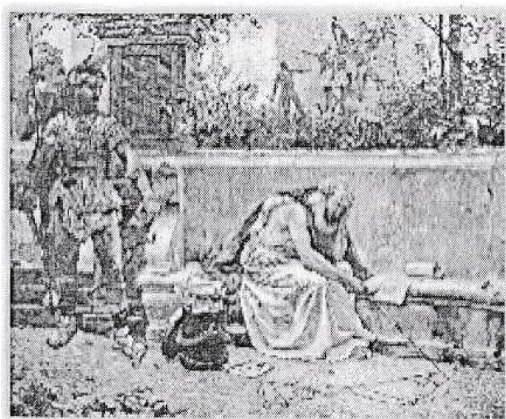
So we will talk about π and by which logic mathematicians got its value.

Let us first understand why π is equal to the ratio of the circumference of a circle to its diameter. There is a simple reason behind it that as we change the size of the circle, its diameter also changes, so the ratio of both is taken since it is the same (constant) every time. So we say this term as a constant π . i.e. $\pi = c/d$.

Now, How do mathematicians find the value of π ? About 2000 years ago, a very difficult method was used to find the value of π .



He took a unit circle and drew inside it a hexagon with all sides of length 1 unit. If this regular hexagon can be divided into 6 equilateral triangles, then the diameter of the circle will be 2 and the parameter of the hexagon will be 6.



So circle is bigger than hexagon so that circumference of circle will be bigger than parameter of hexagon and we know that $\pi = c/d$ so $\pi > 6/2$, it means $\pi > 3$. Now we take a square around the circle. So here the parameter of the square will be 8 and is greater than the circle, it means parameter of the square will be greater than the circumference of the circle. So here $\pi < 8/2$ means $\pi < 4$. So from here it is proved that the value of π lies between 3 and 4 only. And this calculation was done first by Archimedes.

Not only this but he also calculated using 12-sided polygon instead of hexagon and square. But this is a very difficult way even though they calculated by taking 24-sided, 48-sided, 96-sided polygons.

Then in the 16th century Frenchman Francois Viete calculated a polygon with 393,216 sides. After this, in the 17th century, Ludolph Van Ceulen, we cannot even imagine, he calculated by taking a polygon with 2^{62} sides, i.e. a polygon with 4,611,686,018,427,387,904 sides (4 quintillion, 611 quadrillion, 686 trillion, 18 billion, 427 million, 387 thousand, 9 hundred & 4). Despite all this effort, he found values of π to only 35 decimal places.

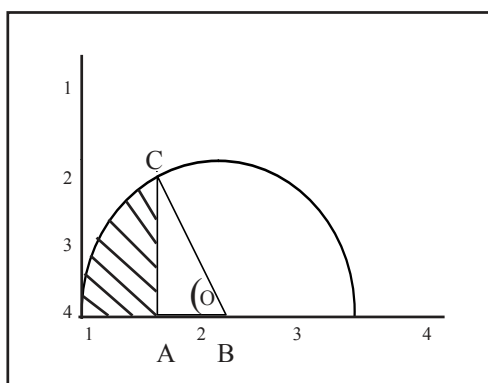
Then Sir Isaac Newton in 1666, when he was 23 years old, made an infinite series of π that simplified this difficult way of finding the value of π . So the value of π up to 5 decimal places can be obtained only by carrying out only 5 terms of this series. From this series, the calculation that Van Ceulen made for a 2^{62} -sided polygon is obtained by calculating only 50 terms of this series.

So this is about what efforts done by mathematicians for the value of π .

NEWTON'S INFINITE SERIES

$$\pi = 4 - \sum_{k=1}^{\infty} \frac{4(2k-2)k}{2^{k-3}(k!)^2(2k+1)}$$

$$\pi = \frac{3\sqrt{3}}{4} + 24 \left(\frac{1}{12} - \frac{1}{5 \times 2^5} - \frac{1}{28 \times 2^7} - \frac{1}{72 \times 2^9} \dots \right)$$



Fact :

Scientists and a supercomputer recently calculated π to 62.8 trillions of decimal points. It took 108 days to run the calculation.

Dhruv H. Prajapati
SY B.Sc. Mathematics

In prayer it is better to have a heart without words than words without a heart.
- **Mahatma Gandhi**

Real knowledge is to know the extent of one's ignorance. - **Confucius**

Patience, Persistence and perspiration make an unbeatable combination for success. - **Napoleon Hill**

I know God will not give me anything I can't handle.
I just wish that He didn't trust me so much. - **Mother Teresa**

ROLE OF STATISTICS IN AI

Is Artificial Intelligence related to Statistics ? Let's find out through this article.

Statistics is a core component of data analytics and machine learning. It helps you find to analyze and visualize the data to find unseen pattern. If you are interested in machine learning and want to grow your career in it, then learning statistics along with programming should be the first step.

The field of Artificial Intelligence deals with making predictions and finding patterns in structures of data to make those predictions. This helps the machine in carrying out various analytical tasks without human intervention. Statistics is a set of principles used to obtain information about data to make decisions. It makes various chunks of data have a relationship with each other and with itself. Hence, statistics play an important role in AI and any person working in the field of AI is well versed with the concepts of probability and statistics. Solving problems in AI requires finding out how data is distributed, information about dependent and independent variables, and so on.

Ideas in Statistics that form an important part of AI:-

- * Predictive Validation is a fundamental principle of statistics and machine learning.
- * Data visualization and exploration was an idea that helped to discover new and unexpected insights from data.
- * Spline smoothing is a statistical approach for fitting nonparametric curves.
- * Open-ended Bayesian models changed the existing models of statistics, which were all static.
- * Boot strapping is an approach to perform statistical inference without making any assumptions.
- * Prediction and inference feedback are popularly used in self-driving cars so that they can learn to drive with minimal assistance from a human.

How to apply statistical thinking to AI problems ?

- * Clearly articulate the problem
- * Quality of data plays a very important role in the result.
- * Descriptive statistics and graphs are the beginning of the workload.
- * Use hypothesis testing and always include control groups to gain valuable insights.

'Information is the oil of 21st Century, and Analytics is the combustion engine
– Peter Sondergaard.

Modi Dhyanish
SY B.Sc. Mathematics

Math phobia : Causes and Remedies

Imagine you have a maths exam tomorrow. How do you feel right now ? Anxious, Right ? certainly, most of us feel the same. For many of us, mathematics equals to a demon. Many students feel sleepy as soon as they open the maths book.

Because of the fear of maths many students can't do well in their exam. Unfortunately, they just avoid maths and that leads them to anxiety. This results in math phobia.

When students have math phobia, any math related questions can make them feel extremely stressed. They get panic easily. Because of this they make it nearly imposible for them to think clearly.

Causes : Many of students and parents agree with me that, when parents with math phobia try to help their children with their math homework, they randomly pass the idea that math is difficult.

Students can also get math phobia from school. Some teachers who are themselves have math phobia, command students to write answer word by word from textbook to get full marks in exam, cramming formulas and etc.

Students have self-doubt on their math skill and are unable to cope with the pressure of performance in exam. When they are not able to handle the pressure, they fail in the subect. In such high level exams, if a student fails, in some cases, student, commit suicide because of public embarrassment.

Maths is typically taught as a right and wrong subject. Teacher wants a fixed answer from students and sometimes students have no freedom to tell their opinion.

Remedies : A credit for success in education goes to a triangle-teacher-student-parent, the role of each is important to save students from math phobia.

The teacher should stay positive and enthusiastic about math to motivate children to study math. Secondly, the teacher ought to explain students why the answer is wrong instead of scolding them. Teacher should not present math as an difficult subject. Children enjoy experimenting. To learn math in-depth, students should be engaged in exploring math in everyday life.

Students have to know the symptoms of math phobia. There are four common symptoms of math phobia, panic, paranoia, passive behaviour and lack of confidence. If you have math phobia it does not make you a bad person, but not dealing with it will affect your life negatively. Students should ask questions when they don't understand.

Instead of cramming for a test the night before, they should study in small portion everyday. Students should also try group study. There are different types of learners. So, studying a subject like math in different method may improve your skills.

Some studies show that involvement of parents in a child's educational processes is very important. Parent should discuss the reasons with children about their bad score and encourage them to do well next time. Children should know that math skills aren't learned automatically, everyone learn on different rate.

No one can sit down and try to read a whole book all at once, so why would we try to do that with math ? So breaks are essential. If parents want to excel their child in math homework, they should know how it's being taught in class. Parents should avoid comparing their child with other classmates or siblings.

Finally, the true goals of mathematics should be to prepare students to face real-life problems with maths as a weapon. A patient, positive and supportive attitude towards children can result in overcoming math phobia.

Patel Priyanka Kanubhai

Div. E Roll

Artificial Intelligence

AI is capabilities, Skills, Knowledge acquired by Machines to complete number action on we can say that. The ability of computer or a robot controlled by computer to do a task that are usually done by human action. Such as the ability of reason, discover meaning, generalize or learn from past experience.

The world AI is not new for us we are very familiar with this as we are using in our daily life eg. In youtube when we see ideas about any sports than it will suggest so many other videos related so sports again and again. These is all done by AI other than that. Now a day we prefer online shopping though amazone and flipkart are ofter noticed on amazon and flipkart will show everywhere like on google.

John Mccarthy an award winning american computer scientist defined AI. It is the science and engineering of making intelligent machines, epecially intelligent computer program. In 1956 john mcarthy coins the tern AI at the first ever AI confenence at clarlmouth college.

All that Allen newill. Sc shows and create the logic which was the first ever running AI software programme.

There are difference types of AI which is based on its capabalities. The first one is 'Artificial narrow intelligence (ANI). Which is also called as weak AI., for eg. Apple's sari, Google assistant's amazone's alexa these are capable of doing task such as. SMS call, music play, pause, by just a voice command. The second one is Artificial General Intelligence. (AGI). it is able to perform intelligence and creatives task with humnan like capabilities. the last one is 'Artificial Super Intelligenmce (ASI) it is able so surpass human abilities in analytical thinking. creativity and performance of computing task so for it is under development.

In 2017 facebook totally scared whole world by thier chatbot experiment. When they were making. AI chatbot who can respond like human, during this experiment an intelligent development go an idea. they make also AI chai bot talk top each other any gave them a name BOB and Alice The result was totally terrifying when the they stared talking in language which is totally unknown by human and that conversation was.

BOB - I can I can everything Else.

Alice - Balls have zero to me to me to me....

BOB - You I everything else.

Alice - Balls have a balls to me so me

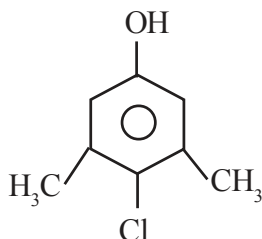
It was awkward launage taught by them after an inception it was found that they develop raw to language to avoid human error, say how dangerous AI can be for us.

AI is like a stranger person who is following us and can hear us, can see us.

Pawan Sharma
FY BSc.

Chemistry of Dettol

Dettol is one of those chemicals which we instantly recognised by its distinctive smell. It is an aromatic compound derived from phenol, which contains a significant chlorine atom, helping us in our continuous fight against unwanted bacteria.



4 – chloro – 3, 5 – dimethylphenol
(Dettol)

Only 4.8% of dettol consists of this molecule (C_8H_9ClO), the rest being made up of pine oil isopropyl alcohol, castor oil soap, caramel, and water. This molecule forms white to cream coloured crystals with m.p. $114 - 116^\circ C$, and has an oral LD₅₀ for a rat's body – a reassuring fact, even if this way of quoting toxicity levels is currently out of fashion. Dettol is commercially available as an inexpensive liquid antiseptic which is safe and gentle enough to use on skin and yet powerful enough to use as a disinfectant. This is because of its broad spectrum of antimicrobial action. It is able to kill 98% of microbes in just 15 seconds and effective against gram positive negative bacteria, fungi, yeast, mildew and even the frightening super-bug.

Dettol is found in a number of products under a number of different names, for example as 0.5% chloroxylenol in the powder Zeasorb used in the treatment of athlete's foot and as the quaintly named parachlorometaxylenol in Vionex, the antimicrobial toilet paper. To keep teenagers on board, it is even used to treat acne, which is caused by bacterial infections and not the over indulgence of the irresistible chemicals found in chocolate.

Dettol has some considerable advantages from low toxicity, low metal corrosive and is active over pH's 4–9. Despite being only slightly soluble in water it has a good solubility in alcohols and pine oils. It may not be the most glamorous molecule but is another example of how a relatively simple molecule has greatly benefited mankind.

So the next time someone says how boring chemistry is, why not reply to them with tales of the bacterial power of dettol whilst casually using one of its synonyms: chloroxylenol, 4-chlorometa-xyleneol, 4-chloro-3, 5-xyleneol and of course confusing them under 30's parachlorometaxylenol (PCMX).

Riya J. Danak
TY B.Sc., Chemistry

Fantastic Fireflies

Fireworks may be over for this festive season, but nature always finds its way to keep night sky sparkling. Have you ever wondered when you saw something blinking in the sky or on the leaves of the tree or grass? They are Fireflies. They do not produce any kind of fire, but they produce light by complex chemical reaction inside their bodies. This phenomenon of emitting light with the help of internal chemical reaction is called 'Bioluminescence'. There are about 2000 different species of the fireflies worldwide, all of which belongs to the taxonomic family 'Lampyridae'. They are so famous for its light producing ability, that their family name got 'Lamp' word in it.

They are kind of nocturnal beetles, which mostly remain active during nights. And during the day, they hide beneath the leaves or in the bark of the tree. They are found all over the world in temperate and tropical areas, on every continent except Antarctica. In Gujarat, they are abundant in Dang region.

But how do these tiny bugs produce such bright light? The answer can be found inside the bug's butt or more specifically in its abdomen. There is an organ called 'Lantern' which is made up of specialized light producing cells and it is covered by almost transparent exoskeleton. These cells have a chemical compound called "Luciferin" that generate light and an enzyme called "Luciferase" which act on luciferin. The "Lucifer" is Latin word which means 'Light bearing'. Both Luciferin and Luciferase are already present inside the cell as a mixture, but they cannot react without the Oxygen. Thus, this oxygen act as switch, by which this insect turns its light 'on' or 'off' at his own will. The process of turning light 'on' occurs in following way: This insect diverts oxygen flow toward the lantern. This oxygen reacts with Luciferin, while Luciferase catalyzes the reaction. The energy required for this reaction comes from ATPs. During the reaction, the luciferin becomes excited by elevating its energy level. After the end of the reaction, when excited luciferin comes back to its original state it releases energy in the form of greenish-yellow light. The layer of reflector cell focuses and diverts the light outward, through their translucent exoskeleton. When we light the common light bulb, it produces so much heat and about 20% energy is given off as a light. However, light produced by fireflies is known as 'Cold light' because it does not generate any heat during the reaction and almost 99% of the energy is converted into the light. This is very beneficial for insect themselves because if the heat will be produced, then it damage internal organs of the body and can cause structural changes in proteins and DNA, which lead to the mutation.

Another question that may have popped in your mind is that, why do fireflies produce light? They produce light to find their mate. A male firefly produce specific sequence of light by blinking, which are identified by the females of the same species, and interested female replies to the messages by producing same light pattern. Both comes close to each other and then they mate. This complex message system acts as love letters between two individuals. This light generating mechanism is also present in the larva of firefly, which live their life underground and they produce flashes of the light as a warning signal. An interesting fact is that the most of the firefly's species do not feed, but females of 'Photuris' genus eat the males of another genus called 'Photunis'. The female achieves this by producing light sequences similar to the sequences produced by its male prey. When attracted male comes closer for mating, she captures the male and then eat it.

Unfortunately, the global population of the fireflies is at serious risk. The population is decreasing worldwide at very fast rate, which can lead to extinction of the fireflies. Due to the Light pollution caused by the bright city lights, the love letters produced by fireflies cannot reach the other partner and even if they do, then letters cannot be perfectly translated. Thus, it is very difficult for males to find their females and for females to see the flashes of the males. Hence, this makes the mating impossible and simultaneously decreasing the birth rate. Another major cause is pesticides used in agriculture which are harmful for the fireflies. Many of the species are adapted and restricted to live in specific part of the forest. When that part of the forest is destroyed, their habitat is lost, ultimately leading to the extinction of the whole species because they can't live or survive anywhere else. If fireflies disappear, then many other animals which rely on fireflies for their food will disappear automatically. This causes the disbalance of the entire ecosystem. At the end, I will just ask a single question. Would you like to live in the world without these tiny magical fireflies? I would not.

Nisarg D. Sankhala
T.Y. B.Sc. (Zoology)

Past, Present & Future Perspective of Pharma Industry

Past :

The finding and recommendations of the committee were, responsible for the genesis of pharmaceutical legislation in India. Acts like the Drugs Act 1940 (Which later became the Drugs and Cosmetics Act) and the pharmacy Act 1948 were enacted because of the recommendations of chopra Committee.

**Top global Pharmaceutical
Companies, 1990**

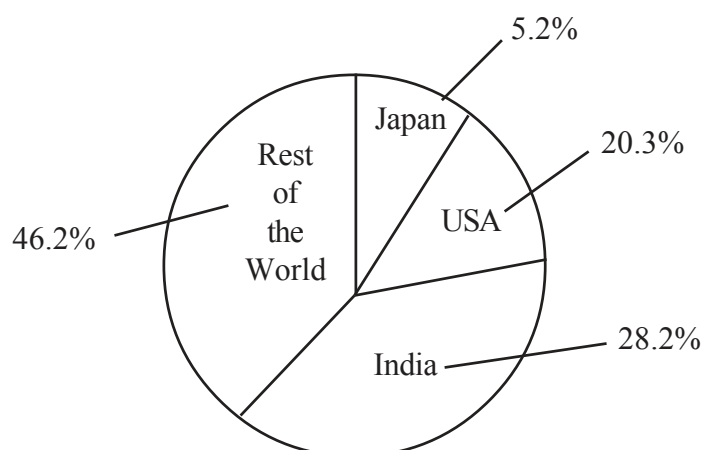
Rank	Company	Global Sale \$ Billion
1.	Merck & Co.	5.221
2.	Bristol-Myer Squibb	4.721
3.	Glaxo	4.547
4.	Smithkline Beecham	4.000
5.	Ciba-Goigey	3.828

**Top global Pharmaceutical
Companies, 2000**

Rank	Company	Global Sale \$ Billion
1.	Pfizer	23.147
2.	Glaxo Smith Kline	22.036
3.	Merck & Co.	16.488
4.	Astra Zeneca	14.228
5.	Bristol-Myers Squibb	13.279

Present :

Indian Pharmaceutical Industry is the World's 3rd largest by Volume and 14th largest in terms of value. Total Annual Turnover of pharmaceutical was Rs. 2,89,998 crore for year 2019-2020. Total Pharmaceutical exports and Import were to the tune of Rs. 1,46,260 crore. "The pharma Industry in India Contributes more than 20% by volume of global generic market & 62% of Worldwide demand for vaccine".



Average % of Revenues Generated by Country

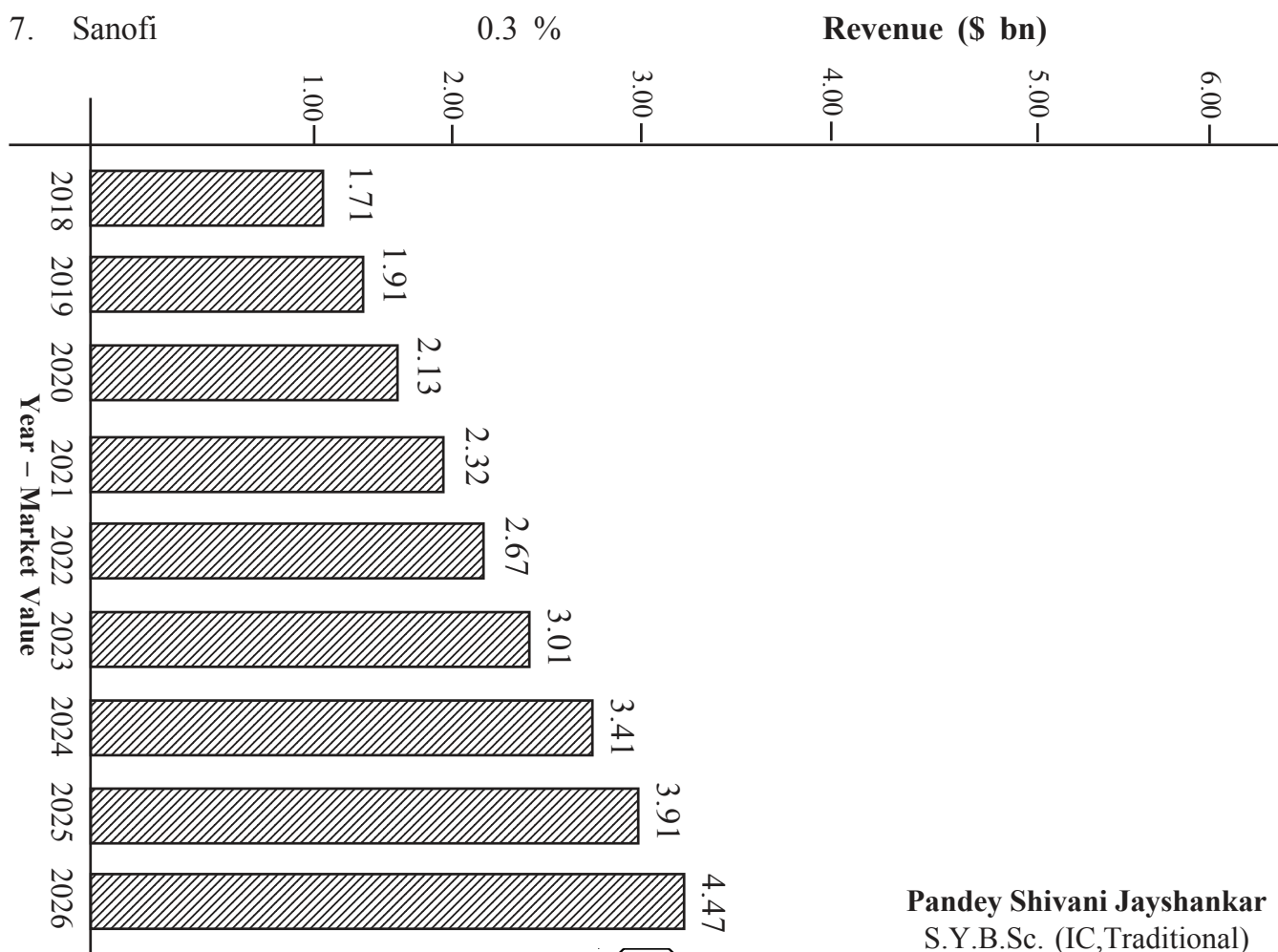
Top 5 pharma Industry in India 2020 to 2022

Company Name	Market Cap
1. Sun Pharma	Rs. 2,09,918 Cr.
2. Divis	Rs. 99,629 Cr.
3. Cipla	Rs. 77,524 Cr.
4. Dr.Reddys	Rs. 79,044 Cr.
5. Torrent Pharma	Rs. 50,604 Cr.

India's domestic pharmaceutical market size was recorded at \$ 42 billion in 2021 and is projected to expand to \$ 120 billion by 2030. Hyderabad ranks first in manufacturing bulk drugs & third in formulation in country and is considered as "Bulk Drug Capital of India".

Future : The market is expected to increase at CAGR of 37% from 2020 to 2025 to reach US \$ 50 billion. CARE Rating expect India's pharmaceutical business to develop at an annual rate of ~11% over the next two year to reach more the US \$ 60 billion in value.

Company Name	Renue CAGR
1. Johnson & Johnson	2.7%
2. Roche	2.9%
3. Pfizer	0.8%
4. Novartis	0.29%
5. Bayer	- 2.6 %
6. Marck & Co.	- 0.8 %
7. Sanofi	0.3 %



Pandey Shivani Jayshankar
S.Y.B.Sc. (IC,Traditional)

Lumpy Skin Disease Virus

- Lumpy skin disease is a viral disease of a cattle caused by lumpy skin disease virus (LSDV), also known as capripox virus.
- LSDV is one of the most important animal pox viruses because of the serious economic consequences in cattle.

History :

- In July 2022, the outbreak spread in 14 out of 33 districts of Gujarat, State of India. By 25 July, more than 37,000 cases and 1,000 deaths in cattle were reported.
- As of 1 August 2022, more than 25,000 cases were reported in Rajasthan in which more than 1200 bovines died.

Symptoms of lumpy skin disease in animals :

- It is characterized by fever, reduced milk production and skin nodules.
- Mastitis, swelling of peripheral lymph nodes, loss of appetite, increased nasal discharge and watery eyes are also common.
- Temporary or permanent infertility occurs among infected cows and bulls.
- It is caused by a virus of the family Poxviridae, also known as neethiling virus.

Transmission :

- It is usually more prevalent during the wet summer and autumn months, especially in low lying areas, or near bodies of water.
- Blood feeding insects such as mosquitoes and flies act as mechanical vectors to spread the disease.
- The virus can be transmitted through blood, nasal discharge, lacrimal secretions, semen and saliva.
- In experimentally infected cattle, LSDV was found in saliva 11 days after the development of fever, in semen after 22 days and in skin after 33 days.
- The virus is not found in urine or stool.
- LSDV can remain viable in infected tissue for more than 120 days.
- By laboratory diagnosis, the disease can be confirmed with tests available to detect the DNA of the virus or antibodies.

Is LSD contagious to humans ?

- The disease is spread primarily by biting insects such as certain species of flies, mosquitoes and possibly ticks.

- The disease can be spread by formites through such things as contaminated equipment and in some cases directly from animal to animal.
- It does not pose a risk to human health.

Treatment :

- There is no treatment for the virus, so prevention by vaccination is the most effective means of control. The only treatment available is supportive care of cattle.
- Secondary infections in the skin may be treated with non steriodal Anti-inflammatories and also antibiotics. (Topical =/–) injectable when appropriate.
- Complete recovery may take several month and may be prolonged when secondary bacterial inflections occur.
- Treatment is directed at preventing or controlling secondary infection.
- It may take upto 6 months for animals severly affected by LSD virus to recover fully.
- There are three vaccines recommended for bovine dermatosis (LSD):
- Lumpy skin disease virus (LSDV) neethling vaccine.
- Kenyan sheep and goat Pox (KSGP) 0-180 strain vaccines.
- Gorgan goat Pox (GTPO) vaccine.
- ICAR (Indian Council of Agricultural Research) have developed a vaccine, lumpy-provac Ind, that has been shown to be effective in preventing the disease.
- Calves from vaccinated cows should be vaccinated at 6 months of age, An annual booster vaccination should be given.
- Calves from unvaccinated cows may be vaccinated at any age.



Vanita R. Dhanani
T.Y.B.Sc. (Microbiology)

“Food is more than just taste, it can create deep therapeutic changes that heal, energise and nourish the body and the skin.”

“The human skin evolved in a natural electromagnetic radiation environment and is now in a very unnatural man-made one that is making many people sick.”? Steven Magee, Electrical Forensics

Should Plastic be banned ?

Let us start, discuss the ban of plastic. We know that plastic bags are a major cause of environmental pollution. Plastic as a substance is non-biodegradable and thus plastic bags remain in the environment for hundreds of years polluting it immensely. It has become very essential to ban plastic bags before they ruin our planet completely. Many countries around the globe have either put a ban on the plastic bag or Levi tax on it. However, the problem hasn't been solved completely because the implementation of these measures hasn't been as successful.

Problems caused by plastic Bags are non-biodegradable, Deterioration of Environment etc. plastics bags are non-biodegradable. Thus, disposing of the plastics is the biggest challenge. T. They are destroying nature due to their harmful effect. Plastic bags have become the main cause of land pollution today. The plastic bags entering into the water bodies are a major cause of water pollution. Hence we can conclude that these are deteriorating our environment in every possible way.

Animals and marine creatures unknowingly consume plastic particles along with their food. Research shows that waste plastic bags have been a major reason for untimely animal deaths. The production of plastic bags releases toxic chemicals. These are the main cause of serious illness. The polluted environment is a major reason for various diseases which are spreading easily in human beings. Waste plastic bags are the main reason for trapping the drains and sewers, especially during rains. This can result in a food-like situation and disrupt the normal life of people.

Now we can talk about reasons to Ban plastic Bags. There are numbers of reasons why the government of various countries has come up with strict measures to limit the use of plastic bags. some of these include (i) waste plastic bags are polluting the land and water immensely. (ii) plastic bags have become a threat to the life of animals living on earth as well as in water. (iii) chemicals released by waste plastic bags enter the soil and make it infertile. (iv) plastic bags are having a negative impact on human health. (v) plastic bags lead to the drainage problem.

Although the Indian government has imposed a ban on the usage of plastic bags in many states. But people are still carrying these bags. Shopkeepers stop providing plastic bags for few days only in the beginning. It is time when we all must contribute our bit to make this ban a success. thus we the educated lot of society must take it as our responsibility to stop using plastic bags. In this way, we can support the government in this campaign. Some contributions that can be made by people are as follows. In order to be successful in this mission, we must keep reminding ourselves about the harmful effects of the plastic bags on our nature and keep a tab on their use. Gradually, we will become habitual to doing without these bags. Other, seek alternatives are many eco-friendly alternatives to plastic bags like reusable jute or cloth bag. And we must reuse the plastic bags we already have at home as many times as we can before throwing them away. While the government is spreading awareness about the harmful effects of plastic bags, we can also spread awareness through word of mouth.

Although plastic is becoming a big threat for all of us, still this problem has often been over looked and under estimated. This is because people do not look at the long term effect of these small & easy to carry bags they use in their everyday life. Besides all of these people keep using bags due to their convenience. But now everyone has to completely stop using the plastic bag to save our environment and earth.

"The future of the earth is in your hands. Say No to plastic bags !"

"Say no to plastic bags, let our mother Earth breathe."

Patel Surbhi Dilipbhai
T.Y.B.Sc., (Microbiology)

Monkey Pox

The disease is caused by the monkeypox virus a zoonotic virus in the genus orthopoxvirus. The variable virus the causative agent of small pox is also in this genus. It may spread from infected animals by handling infected meat or via bites or scratches. Human to human transmission can occur through exposure to infected body fluids or contaminated objects by small droplets and possibly through the airborne route. Diagnosis can be confirmed by testing a lesion for the virus's DNA.

Monkeypox was first identified as a distinct illness in 1958 among laboratory monkeys in Copenhagen, Denmark. The first documented case in humans was in 1970 a 9-month old boy in the Democratic Republic of the Congo. It was noted to be less easily transmissible than smallpox. Between 1970 and 2019 the disease was reported in 10 African countries, mostly in central and west Africa. In India first case reported in Kerala 14 July 2022. India has reported 4 cases of monkeypox among 3 in Kerala and one in the capital, Delhi.

It is possible for a person to be infected with monkeypox without showing any symptoms. It tends to begin 5 to 21 days after infection with early symptoms including headache, muscle pains, fever and fatigue initially resembling influenza. Within a few days of the fever, lesions characteristically appear on the face before appearing on the trunk then palms of the hands and soles of the feet. Three-quarters of affected people have lesions on the palms and soles, more than two-thirds in the mouth, a third on the genitals and one in five have lesions in the eyes. They begin as small flat spots, before becoming small bumps which then fill with at first clear fluid and then yellow fluid. After healing the lesions may leave pale marks before becoming dark scars.

Clinical diagnosis must consider other rash illnesses such as chickenpox, measles, bacterial skin infections, scabies, syphilis. Diagnosis can be verified by testing for the virus. Polymerase chain reaction (PCR) testing of samples from skin lesions is the preferred laboratory test. PCR blood tests are usually inconclusive because the virus remains in blood only a short time.

Vaccination against smallpox is assumed to protect against human monkeypox infection because they are closely related viruses, and the vaccine protects animals from experimental lethal monkeypox challenges. No smallpox or monkeypox vaccine has been approved for use during pregnancy. An infected person should be isolated in preferably a negative air pressure rooms or at least a private exam room to keep away others from possible contact.

In European union and the united states is approved for the treatment of several paxvirus, including monkeypox. BMI Best practice recommends tecovirimat or the smallpox treatment brincidofovir as the first line antiviral treatment if required. Empirical antibiotic therapy or aciclovir may be used if secondary bacterial or varicella zoster infection is suspected. Vaccinia immune globulin it also in use.

Estimates of the risk of death vary from 1% to 10% although few deaths recorded since 2017. It is very sad that on 31 July 2022, the first death from monkeypox was recorded in India: a 22 year old man who had returned from the UAE died. Therefore, we must say that prevention is better than cure.

Thakor Maulee V.
T.Y.Microbiology

Tomato Flu

Tomato flu is a highly contagious viral infection, which spreads via close contact particularly among young children aged under five. Tomato flu is nothing but hand, food and mouth disease. (HEMD). The name tomato flu comes from the main symptom of this disease, the tomato shaped blister on several body parts. The blisters start as red-coloured small blisters and when they enlarge, they resemble tomato shaped, therefore known as 'tomato fever' or 'tomato flu'. The infected children also have skin irritation and severe dehydration issues.

Doctors have sounded an alarm over the "emergence of new non-life-threatening" viruses called tomato flu among the children below five years of age. In the recent lancet Respiratory journal published on August 17, the doctors said that the flu was first identified in the kollam district of kerala on may 6, 2022 and as of July 26," more than 82 children younger than 5 years with the infection have reported by the local government hospitals. It further said that this endemic viral illness triggered an alert to the neighbouring states of Tamilnadu and Karnataka. Additionally 26 children have been reported as having the disease in Odisha by the Regional Medical Research Centre in Bhubaneswar.

The symptoms of tomato flu are similar to Chikanguniya or dengue infection. The chief identified symptoms of this infection are these large, red-coloured and spherical blisters on multiple bodyparts, Rashes and irritations, Dehydration, High-grade fever, Bodypain, swollen and painful joints, Nausea and Vomitting, patches and discolouration on various body areas, including hands, buttocks and knees, Runny nose and sneezing, frequent coughing, abdominal pain and cramps, constant feeling of tiredness and fatigue. Because tomato flu is similar to chikanguniya and dengue as well as hand, foot and mouth disease, the treatment is also similar-isolation, rest, plenty of fluids and hot water sponge for the relief of irritation and rashes. Supportive therapy of paracetamol for fever and body-ache. Young children are also prone to this infection through use of nappies, touching unclean surfaces, and putting things directly into the mouth. Given the similarities to Hand, foot and mouth disease, if the outbreak of tomato flu in children is not controlled and prevented, transmission might lead to serious consequences by spreading in adults. It is also known that tomato flu is caused by 'coxsackie virus A 16'. It belongs to enterovirus family.

There are no disease-specific 'Medications' because it is a rare disease and has recent emergence. The doctors provide symptomatic cure according to the child's needs. The doctor prescribes antipyretic and pain-relievers to subside symptoms.

The best way to curb the disease is to stop the spread of infection. As we know, prevention is the best treatment in a sudden unknown disease outbreak. We should avoid close contact to prevent disease infection. Some preventive measures we should keep in our mind: Avoid immediate contact with the infected person, Educate your child about the signs and symptoms and its side effects, Tell your child not to hug or touch children having fever or rash symptoms, You should encourage your children about hygiene maintenance and stopping some habits. Don't scratch or rub the blister and wash every time you touch these blisters. If your child develops symptoms of tomato fever, immediately isolate them from other children to inhibit disease progression. All utensils, clothes and other items should be separated and sanitized regularly. Always use warm water to clean skin or for bathing the child. Take a nutrition-rich, balanced diet to boost immunity.

As yet, no antiviral drugs or vaccines are available for the treatment or prevention of tomato flu. Further follow-up and monitoring for serious outcomes and sequence is needed to better understand the need for potential treatment.

Prajapati Kushish Kiranbhai
T.Y. Microbiology

My Favorite Indian Physicist

My favourite Indian physicist is Sir Chandrasekhara Venkata Raman. He was born on 7th November, 1888 in Tiruchirappali, Tamilnadu. He is the son of R.Chandrashekhara Aiyer and R.C.Parvathi Ammal. He is one of the most renowned scientists produced by India. He is the Experimentalist of optics and Acoustics and also he is Spectroscopist.

Sir Chandrasekhara Venkata Raman, the father of Indian Science, was a brilliant experimentalist, who made fundamental contributions to the understanding of the nature of light. He won the 1930 Nobel prize in physics for his discovery of what came to be called the Raman effect: the scattering of monochromatic photons of light as they pass through a transparent medium in which the interaction of the photons with the molecules of the medium causes the scattered photons to have wavelengths different from that of the incident photons. Raman scattering spectra can be used to determine information on the structure of molecules.

He was born in highly educated family. His father was a professor of physics and his nephew, SUBRAMANAYAN CHANDRASHEKHAR, was destined to become a nobel prize winner in astrophysics. An exceptional student from the start, Raman passed his matriculation exam at the age of twelve. In 1902, he entered Presidency college, Madras, where he earned his B.A. two years later, along with the gold medal in physics. By 1907, at the age of 19, he had completed the requirements for the M.A. with the highest distinction. Continuing his scientific studies in those years, would have entailed travel to England, a step he could not take because of poor health. Since India offered no opportunity for a scientific career, Raman took a job with the financial division of the civil service. For 10 years, he worked as an accountant in calcutta; he managed to continue to pursue his research during this time, publishing an astonishing 30 purpers. Using the laboratories of the Indian Association for the cultivation of Science in calcutta, he investigated diffraction, vibrations in sound and the theory of musical instruments, which remained a lifelong interest. The attention he gained through this work generated the offer of a professorship in physics at the University of Calcutta.

In 1917, Raman began a new life in academia, remaining at Calcutta for the next 16 years, the period when he would do his most important work. In 1921, when he was returning by ship from a conference in England, the intense blue colour of the sea inspired his work on diffraction. He was led to question the theory of LORD RAYLEIGH (JOHN WILLIAM STRUTT) that the sea's colour was due to the scattering of light by particles suspended in the water. Back in calcutta, he showed that it was the scattering of light by water molecules that caused the sea to be blue. In 1922 he published his paper "Molecular Diffraction of light", in which he described his experiments on the diffusion of sunlight in its passage through water, transparent blocks of ice, and other materials.

In 1923, ARTHUR HOLLY COMPTON discovered the compton effect which x-rays are scattered when they pass through matter and emerge with a long or wavelength. He explained

phenomenon by proposing that x-ray particles or photons had collided with electrons and lost some this energy. In 1925, Werner Heisenberg predicted that the Compton effect should also be observed with visible light—a conclusion Raman had already reached two years earlier on the basis of actual observation. Raman used the monochromatic light from a mercury arc and the spectroscope to study the nature of diffused radiation emerging from the material under examination. In 1928, after refining his experiment for the scattering of monochromatic light in dust free air and pure liquids, Raman announced the existence of a Compton-like scattering phenomenon for visible light photons, phenomenon for visible light photons which came to be known as Raman scattering. He explained the scattering effect as being due to the internal motion of the molecules encountered, which can either transfer energy to the light photons or absorb energy from them in the resulting collisions. The Raman scattering effect was then used in what is now known as Raman spectroscopy which gives precise information on the motion and shape of molecules.

A shaping force in the development of physics in his native country, he established the Indian Journal of Physics in 1926. In 1928, he sponsored the founding of the Indian Academy of sciences and became its first president. He also initiated the proceedings of that academy in which most of his own work was published. The British government knighted him in 1929, a year before he became the first Indian to win a Nobel Prize in physics in 1930. Although he never earned a doctorate he was awarded several honorary doctorates and membership in scientific societies.

In 1934, Raman became head of the physics department of the Indian Institute of science. He remained there until 1948. Serving a term as president from 1933 to 1937, he left in order to become the first director of the Raman Research Institute, built for him by the Indian government in Bangalore. One of his colleagues at the institute was HOMI JEHRANGIR BHABHA, a leading particle physicist and influential figure in India's scientific development. During this vital period of his career, Raman made important contributions to the understanding of many different kinds of physical phenomena, including the effects of sound waves on the scattering of light; the vibration of atoms in crystal; the optics of gemstones, particularly diamonds and of minerals; and the physiological mechanisms of human color vision. Raman remained head of the institute until his death in Bangalore on November 2, 1970.

The leading Indian Scientist of his generation, Raman was also a devoted educator who trained large numbers of his compatriots, thus significantly enhancing the standards and status of Indian physics. His discovery of the Raman scattering effect afforded a method for the analysis of molecular structure as well as demonstrating conclusively that visible light photons behave as particles, thereby offering confirmation of the quantum theory.

Rana Divya S.
S.Y.B.Sc. Sem-III

Evolution of Organic Chemistry

Terms as organic chemistry or inorganic chemistry did not exist until 17th century AD. In 1665, Nicolas Lemery classified all the known chemical compounds on the basis of their origin-as minerals, plants or animals. But it was Antoine Lavoisier (father of modern chemistry), who first showed that carbon is the essential element in every chemical compounds which isolated from plant or from animal. Due to this revelation, the distinction between plant and animal gradually disappeared and they were jointly termed as organic substances.

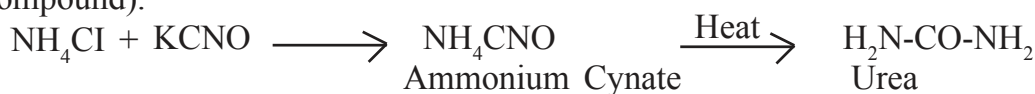
Now, chemistry was divided into two parts: Organic Chemistry and inorganic Chemistry. Compounds whose source was non-living material i.e. mineral, were termed as inorganic compounds and they were studied under inorganic chemistry; while compounds whose source was living organism i.e. plant or animal, were termed as organic compounds and they were studied under organic chemistry.

Until 1850, many inorganic compounds were synthesized in the laboratory and studied, but there was no mechanism for synthesis of organic compounds in the laboratory. On the basis of this, a Swedish chemist J. J. Berzelius gave a theory in 1815, which is known as Vital Force Theory.

Berzelius proposed that organic compounds could be only produced by some mysterious-god gifted-force existing in the living organisms i.e. plants and animals. This force was termed as vital force. It comes from a Latin word *vita* means life. According to this theory.....

- a) All organic compounds were isolated from living bodies.
- b) The organic compounds were the products of the vital force and could not be synthesized in the laboratory.
- c) The organic compounds did not obey the laws of chemical bonding.

Initially, this theory was universally accepted, as no such mechanism for the synthesis of organic compounds in the laboratory was vogue. In 1828, during the crystallization of ammonium cyanate (an inorganic compound), Friedrich Wohler (a German chemist) accidentally superheated it into a new fused mass. He analyzed the compound and confirmed it to be urea (an organic compound).



After this event, Wohler claimed that organic compounds are also possible to prepare in the laboratory. Initially, it was not accepted. Fellow society assumed that Wohler was against the god. Later on, he was supported by Kolbe in 1845 by the synthetic preparation of acetic acid from its initial constituents carbon, hydrogen and oxygen. Similarly, he was also supported by Berthelot in 1856 by synthesizing methane from its initial components carbon and hydrogen. By this way, so-called Vital Force Theory was proved to be wrong and no more accepted. Now days, organic compounds are hydrocarbons and their derivatives. For an example, carbon tetrachloride is not a hydrocarbon but an organic compound which is derived from hydrocarbon methane by substitution reaction of it with four chlorine molecules in the presence of sunlight.

Reference :- Universal Chemistry XI.Ed.First.Vol.First. A Text book of Higher Secondary Chemistry XI Ed.Wd.2nd. Organic Chemistry by O.P.Tandon & A.K.Viamni.

Vedant Raval
T.Y.Chemistry

Chemistry In Everyday Life

Chemistry plays an important role in daily lives. It has an impact on all aspects of human life. Chemistry is defined as "a field of science that investigates matter including its compositions, structure and changes that occur when it is treated in different situations", All of the peels and drugs we take to treat our diseases are made using chemicals. Thus chemistry is found everywhere. There is no disputing that lot of items in our surrounding are related to chemical processes in some way.

The Importance of Chemistry in Cosmetics :

Talcum powder, perfumes, lotions etc are the name of few products which are used in our daily life. All these cosmetic products are made of chemical components whether it's the product for adults or infants.

It is very essential for controlling pH of our skin, keeping it healthy and removing unsightly scars.

Some commonly found chemical constituent in cosmetics are :

1. **Thickeners** : Cetylalcohol and stearic acid, thickeners that provide a pleasing consistency.
2. **Shiny Materials** : Mica, Bismuth, Oxychloride etc.
3. **Emulsifier** : Potassium cetyl sulphate makes the emulsion more stable.
4. **Emollient** : By halting water loss, glycerin and zinc oxide soften the skin.

* Importance of chemistry in food :

Chemical is essential for both food preservation and the manufacturing process. The chemical in food preservative keeps the food fresher for longer.

Dietary supplements, food additives and food seasoning can all assist to improve the quality and amount of meals.

Chemistry has provided the globe with vital fertilizers, herbicides, insecticides and fungicides to aid in the development of healthy and nutrient-dense crops, fruits and vegetables.

- * Some substances are very frequently found in food related materials; such as, Vitamins, Minerals Binding substance, antioxidants, flow stabilisers, colouring, agents, preservatives. etc.
- * Importance of chemistry in Soap and Detergent soap are higher molecular weight salt of fatty acid including stearic acid. palmitic acid, folic acid made of sodium and potassium. Sodium salt of long chain alkyl hydrogen sulphate or sodium salt of long chain alkyl benzene sulfonic acid are used as detergents.

Soaps and detergents are used for bathing, cleaning, and washing among other things. They are produced by chemical companies. by saponification procedure. Thus chemistry has a big impact on the procedure used to make molecules, chemicals soap and detergents.

- * **Conclusion** : The study of chemistry, a special branch of science, is necessary for the reasearch of materials or their development for the benefit of humanity. Infection prevention and bodily defence against a variety of infectious diseases are the primary objectives of medicinal chemistry. Preservatives, sweetners, flavouring agents, antioxidants, edible food colors, are few of the chemicals a used in food industry as food additivies.

One of the primary ways that chemistry is employed daily is in cleaning supplies like soaps and detergents. Detergents are now preferred over soaps, because they work well in hard-water.

We prefer using detergents with straight chain of hydrocarbon since branched chain detergents are non-biodegradable and harm the environent. Conlcuding, chemistry plays a huge role in survival of humans, hence learning chemistry becomes necessary..

My favorite Indian Physicist***Chandrasekhar Subramanyam***

Theoretical Physicist Astrophysicist

Subramanyam Chandrasekhar laid the basis for modern astrophysics with his theories about the evolution of stars, Which led to the concept of black holes. He was part of the pioneering generation that melded physics and astronomy into a dynamic, unified discipline. His career illustrates the formidable barriers faced by any physicist whose work represents a paradigm shift a fundamental change in the way we view physical reality. Despite the public ridicule that greeted the theories the began developing in the 1930s, while still a student, Chandrasekhar's work was eventually recognized as fundamental to the understanding of how stars are born, live and die. When he died in 1995, he had been awarded the 1983 Nobel Prize in physics for this work and widely hailed as an astrophysicist who had forever changed the way we look at the universe.

The man known as Chandra to his friends and colleagues was born on October 13, 1910 in Lahore in colonial India, now a part of Pakistan. He was a highly educated South Indian Nobel Laureate in physics, his uncle, SIR CHANDRASEKHARA VENKATA RAMAN. His father, C.S.Ayyar, was employed by the Indian railways, which transferred the family to Madras when chandrasekhar was eight. The oldest boy in a family of three boy and five girls, he was home schooled by his parents and private tutors until the age of 12. He was a precocious student, who entered presidency college in India at the age of 15. There he met the English physicist ARNOLD JOHANNES WILHELM SOMMERFELD who exposed him to the new quantum mechanics. Reading all he could find on this revolutionary theory, he came across a 1926 article, "On Dense matter" by R.H.Fowler, a professor at Cambridge University which would lead him to begin developing his first original ideas and to leave India in 1930 at 19 to study in England.

In the 1920s the work of Arthus Eddington, the most eminent astrophysicist of the time, had led to a quandary known, as the eddington paradox. The star must ultimately turn cold and then support itself not by thermal pressure but rather by the only other type of pressure known in 1925 that found in solid objects such as rocks.

Which is due to replusion between adjacent atoms. Such "rock pressure" was possible only if the star's matter had a density like that of a rock a few grams per cubic centimeter. This however was 10,000 times less than the density of white dwarf stars like sirius B'. In order to reexpand to the lesser density of rock and thereby be able to support itself when it turned cold, a white dwarf star would have to do enormous work against its own gravity Physicists knew of no energy supply inside the star dequate for such work.

Fowler resolved this paradox by replacing the physical laws Eddington had used with the new quantum mechanics. He ascribed the pressure inside sirius B and other white dwarf, not to heat, but to a quantum mechanical phenomenon known as the degenerate motion of electrons or electron degeneracy. This degenerate motion is a consequence of a feature of matter that Newtonian physicists never dreamed of the wave particle duality. An electron inside the very dense matter of a white dwarf star has a short wavelength and accompanying high energy, which implies rapid motion. This means that the electron must fly around inside its cell behaving as an erratic, high-speed mutant half parricle, half-wave. Physicists say that the electron is degenerate and they call the pressure that its erratic high speed motion produces electron degeneracy pressure. Fowler concluded that when a white dwarf like sirius B cools off, it need not reexpand to the density of rock in order to support itself; rather it continues to be supported quite satisfactorily by quantum degeneracy pressure at its own density of 4 million grams per cubic centimeter.

On his long sea voyage to England, Chandrasekhar applied the effects of Albert Einstein's special relativity and the new quantum mechanics to fowlers work. He calculated the limiting mass for collapsing stars to become white dwarfs as less than 1.44 solar masses. This value became known as the Chandrasekhar limit. If the mass of the star exceeds this limit, Chandrasekhar concluded its gravity will overcome pressure inside the star which will continue to collapse into a very dense object which would later become known as a black hole. In Cambridge, Chandrasekhar refined his discovery. Yet, when he presented it in 1935 at a meeting of the Royal Astronomical Society. Eddington, who had been highly supportive of Chandrasekhar's research, criticized him in devastating terms. The older scientist's life work had demonstrated that all stars, regardless of their mass had stable configurations and in their final life stage, became white dwarfs.

Chandrasekhar's contention that there was a limit to the mass of a star in its old age was anathema to him. Unfortunately, Eddington's credibility was far greater than that of Chandrasekhar, a young unknown and a foreigner to boot. Humiliated, but still believing in his work Chandrasekhar succeeded in having a number of famous physicists confirm his calculations. Nonetheless, decades would pass before the physics community would accept the Chandrasekhar limit and make it the basis for the theory of black holes. After failing to find a position in England where Eddington's influence prevailed, or in India, where he was the victim of academic infighting, Chandrasekhar was invited to work at the university of Chicago's yerkes observatory in 1937. Chandrasekhar gladly accepted but first returned to India to marry Lalitha Doraiswamy, who had been a fellow physics student at presidency college so that he would share his 58 years at the University of Chicago as a beloved teacher and researcher.

Eventually, the Chandrasekhar limit was universally accepted, even by Eddington, with whom he made peace, but the pain of that conflict with his former mentor was sufficient for him to abandon research on the black hole fates of massive stars for nearly 40 years. During this time he laid many of the foundations of modern astrophysics: the theories of stars and their pulsations of galaxies, and of interstellar gas clouds to name but a few. But his enduring fascination with the fates of massive stars led him to build upon the efforts of a younger generation of astrophysicsts that from 1964 to 1975 had created the "golden age" of black hole research. Black holes were found to be dynamic objects with enormous energies, Whose gravitational and other properties, according to general relativity could be predicted from just there numbers', the hole's mass, its rate of spin and its electric charge. Only a few of these properties were known in 1975. But Chandrasekhar took up the exhilarating challenge of computing all the remaining ones a task of which his formidable mathematical skills proved to be equal.

Eight years later, at age 73, he completed his task and published the Mathematical Theory of Black Holes A Treatise, which will be a mathematical hand book for black hole researchers for decades to come, enabling them to extract method for solving black hole problems in general. That same year Chandrasekhar was honored for "his theoretical studies of the physical processes of importance to the evolution of the stars" by the Nobel prize in physics.

Four years after his death due to heart attack in 1995, at the age of 84, the National Aeronautics and Space Administration's (NASA's) Advanced X-ray Astrophysics Facility (AXAF), which was launched and deployed in July 1999 by the space shuttle Coloumbia, was renamed the Chardra X-Ray observatory in his honor. Referred to by astrophysicists simply as "Chandra" it combines high resolution, a large collecting area and sensitivity to higher energy X-rays, to study extremely faint sources, some times strongly absorbed in crowded field.

Nidhi Patel
S.Y.B.Sc.Physics

Care for the Environment

Environment in which many things are hidden in its meaning. Yes, I am talking about the same environment in which human life in which the geographical location of the region, its water forms, climate, vegetation and ecosystem are related to the mutual relationship of many natural elements. The condition is included in the environment. This is the environment that surrounds the air, water and land. This is the environment where we live a healthy and refreshed life.

Today it is, if anything, the most pressing problem facing the world as it emerges into the twenty-first century, 'protecting the environment' ! There are no one or two reasons behind this worry, which were not there at times in the past, there are several reasons which have not only disturbed the sleep of the educated people but also the sick people. Many industries started in the twentieth century. Air is polluted due to its chemicals, Smoke, fine particles of coal or wood etc. Due to the problem of gas leakage, the 'Bhopal Gas Disaster' caused a huge loss of life and caused havoc. Today noise pollution is also increasing day by day. Humans destroy the environment to obtain pleasures. He hunts peacocks for feathers. He cuts random trees to make house furniture. Deforestation of trees has reduced the protection of wild animals. The amount of rainfall also decreases a lot when the trees are cut. Hence the production of food grains decreases and severe problem of drinking water is created, factories release sulfur dioxide and many other toxic gases. Also the polluted water of the factory is discharged into the river or the sea. Hence river or sea water gets polluted, aquatic life is threatened. Due to the use of such polluted water for drinking, humans have become victims of various diseases. Excessive consumption of plastic bangles is also harmful for pollution. In one way or another, the balance of the environment is threatened by polluting the air and water.

Today, Chemical fertilizers and pesticides are used indiscriminately to increase grain production. As a result, there is no interest in grains and vegetables as before. Increasingly, vehicular fumes and noise also increase air and noise pollution. It seems that mankind has not learned any lesson even from the two great world wars. Today, the countries of the world are competing to increase their military strength. It also increases pollution. It has a great impact on human health.

But today we are keeping this environment clean ! No we don't keep this environment clean. But if we want to live a happy and healthy life in the future then we have to take care of the environment today in this present time. But if we save this environment today, maybe the next generation will be able to live a happy and simple life. And for this reason, we celebrate the world environment day on June 15. The purpose is to create awareness among people about the care of the environment. Today, due to our carelessness, serious problems are created that damage the environment, such as green House effect, besides many pollutions like air, water, land, noise pollution etc. The environment is threatened. Today the forest is being destroyed due to cutting down of trees in huge amount, these trees which provide us healthy oxygen. We know that during the corona period we all needed oxygen very much and we used to buy it by giving money. We cut trees and send them to foreign countries and in the present time we have to bring oxygen from abroad. The amazing weapon of science and technology came into the hands of man and with the help of turbine pumps, he started extracting the underground water and mineral oil in an uncontrolled manner. Hunger for factories has increased.

Thus, today the issue of environmental degradation has become very serious, and the whole world is very concerned. Let us all resolve to do our best to protect flora, fauna water resources and ecosystems. thankfully "world environmental day" has been pledged to hold two immediate measures of environmental protection. One is preventing industrial pollution and second is preventing destruction of nature born flora, fauna and aquatic life. Thus preservation of environment is the moral duty of all of us.

Hiteshbhai Rajubhai Jadav
F.Y.B.Sc.

Content Marketing : A Modern Guide

What is content Marketing ? Content marketing shares informative content that is relevant, interesting, and useful to your target audience.

There are four forms of content : * Written word * Audio * Video * Images

The most important thing to remember is that it's your job to be useful there's no point in creating any content if your audience doesn't get any value from it.

Content marketing is one the best ways to do that. If you're looking for content marketing and SEO services, check out copy bloggers content marketing agency. Digital commercial partners. We specialize in delivering targeted organic traffic for growing digital business.

Why invest in content marketing ?

When done well content creates brand equity. Meaning, your brand becomes more and more valuable over time as you continue to create valuable content. And the more you help your audience, the more your brand will gain a reputation as a leader in your field.

This creates a flywheel effect where you start to generate more and more momentum until suddenly you're dominating your field.

The core why content provides value to you as a business is through organic traffic. This is where people discover you on some kind of search platform like google, YouTube, or a podcast directory and go visit your content.

It's fundamentally different from other kinds of traffic for one critical reason - these people are looking for you. They are actively searching for, information related your business - that's how they discovered you in the first place.

On every other platform, you're interrupting whatever they're doing they're passive observers instead of active searchers. It's typically much harder and much more expensive to do that kind of marketing.

"On those platforms, you have to go to your audience. But with organic traffic your audience comes to you".

– These folks have a problem. – They're aware of the problem. – They want to solve the problem.

Creating a content marketing strategy

A content marketing strategy is a plan for building an audience by publishing, Maintaining and spreading frequent and consistent content that educates, entertains or inspires to turn strangers into fans and fans into customers.

But before you start pumping out content like a machine, you need to do three things.

1. Determine who your customer is 2. Figures out what information they need. 3. Choose how to say it.

Building an audience : In order to build an audience you need to learn it.

Your content needs to be good enough to warrant the most important resources anyone has their time and attention.

Just remember their audience needs to look like your ideal customer you don't want just anybody.

Meera Kadakia
T.Y.B.Sc. (Chemistry)

Terpenoids

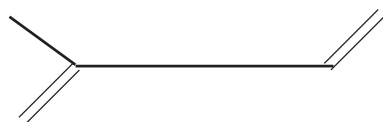
Terpenoid compounds are generally considered to be plant or fungal metabolites. It represents the most widespread group of natural products that can be found in all classes of living things. The important classes of the terpenoids present in plants are the volatile essential oils, terpenoids, and steroids. These oils are secondary metabolites that are highly enriched in compounds based on an isoprene structure $C_{10}H_{16}$ and are called terpenes. The isoprene unit, which can build upon itself in various ways, contains carbon molecules. The single isoprene unit, therefore, represents the most basic class of terpenes, the hemiterpenes. An isoprene unit bonded with a second isoprene is the defining characteristic of a terpene, which is also a monoterpene (C_{10}).

These general chemical structures occur as diterpenes, triterpenes, and tetraterpenes. [C_{20} , C_{30} , and C_{40}] as well as hemiterpenes (C_5) and sesquiterpenes (C_{15}), when the compounds contain additional elements, usually oxygen, they are termed as terpenoids.

Intra-terpenoids form a separate group of compounds called 'carotenoids'.

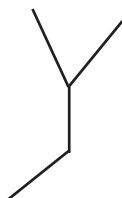
Isoprene Rule :

Thermal decomposition of terpenoids gives isoprene as one of the products pointed out that terpenoids can be built up of isoprene units. Isoprene rule states that the terpenoid molecules are constructed from two or more isoprene units.



Further, it was suggested that isoprene units are joined in the terpenoid via "head to tail" fashion.

Special Isoprene rule states that the terpenoid molecule is constructed of two or more isoprene units joined in a "head to tail" fashion.



But this rule can only be used as a guiding principle and not as a fixed rule. For e.g., carotenoids are joined tail to tail at their central and there are also some terpenoids that cannot fit to these rules.

Meera Kadakia
T.Y.B.Sc. (Chemistry)

Bacteriophage therapy : Recent developments and applications

- * Let's begin with the term bacteriophage... did you know what are bacteriophage ?
- * Bacteriophages are viruses, the most abundant organism and the natural predators of bacteria.
- * They are self replicating, obligatory, intracellular parasite and ineral biochemically in extra cellular environment.
- * **Bacterophage therapeutic applications :**
 Phage therapy is the use of bactereophages to treat Bacterial infections. This could be used as an alternative to antibiotic when bacteria develop Resistance.
- * Also removal tool for the Removal of human and animal pathogenic bacteria from waste water or applied as an indicator for the presence of bacteria in waster-water treatment system.

Phage therapy safety and Immune responses :

- * Bacterophage are generally regarded as safe may be due to their abundance and our constant exposure to them.

They are known to exert minimum impact on microbiota due to their high hose specificity, usually exhibit the ability to infect a few strains of Bacterial species.

Phase Resistance bacteria may develop mutated receptors that are not always disadvantageous because bacteria may completely lose their virulence and become more sensitive to phages.

Bio-engineered Phages and vaccines : Bioengineering of phase could significantly enhance their therapeutic potential via expanded host Ragne, delivery of exogenous genes, and modification of phage or switching hose trospim.

Limitation and challenges :

Phage theraby exhibit certain pros and cons like any other curative methods.

1. Phage infection Resistance stratategy : Over millions of year bacteria have ceveloped with viruses, ego they have adapted numerous resistance mechanisms.

A. Phage adsorption mechanism is achieved by surface modification of bacterial cell via conformational changes.

B. Extracellular matrix production as a barrier.

Conclusion : Antibiotics are treasures and many times life saving agents.

They can retain this stature only if they are handled correctly and prescribed appropriately.

Mansi V. Chauhan
T.Y.B.Sc.(Microbiology)

Vikram Sarabhai

Dr. Vikram Sarabhai was born on 12th August 1911 in Ahmedabad. He completed his initial education in Ahmedabad only. In 1938 he came to Ireland from Cambridge University he completed his doctorate degree. His research paper is on cosmic rays.

Vikram Ambalal Sarabhai is a well-known name in India's Scientific development. He is known as the father of the Indian Space Program. After the doctorate he returned to India. He joined Indian Institute of Science in Bangalore to carry out research on cosmic rays.

Vikram Sarabhai is the one who helped India to get developed on Scientific ground. He helped to develop Nuclear Power in India. The establishment of India's space centre, ISRO (Indian space research organization) is one of Sarabhai's biggest achievement.

Sarabhai one of the main person behind the Scientific education in India. He realized that a developing nation like India's need for scientific development. Sarabhai was the leading figure in Indian space programme India could launch its first satellite, Aryabhata in 1975.

The interesting fact about Vikram Sarabhai is that he established different institutions one of those was the establishment of the Indian Institute of Management Ahmedabad. Indian Space Research Organisation (ISRO), Space Application centre etc. He established the Nehru Foundation for Development to deal with programs of Indian society. He is also known for establishing Atomic Energy centre at Trombay etc.

His contributions to the field of Science are outstanding. For his great contributions, he received popular award like Padma Bhushan and Padma Vibhushan. In his honour ISRO declared Vikram Sarabhai Award. The birth anniversary, 12th August is observed as Space Science Day every year in India.

The recent development in India's space mission is dedicated to the great Indian Vikram Sarabhai. The Vikram Sarabhai lander is named after him. It is a way to be thankful and pay our respect to one of the most popular scientist of our country. His birth centenary is celebrated in Google in the form of doodle on 12, August 2019.

Ronak Bharatbhai Suthar
T.Y.B.Sc. (Physics)

“Darkness cannot drive out darkness: only light can do that.
Hate cannot drive out hate: only love can do that.”

Martin Luther King Jr.

Homi Jehangir Bhabha
(A father of Indian nuclear Programme)

We all know that any country is made strong by its nuclear power and the country which has good nuclear power is considered as powerful and our country. India also has good nuclear plants and India has many of nuclear power and weapons.

Homi Jehangir Bhabha was one of the pathfinder in nuclear physics research for his contribution in this field, he is called "The father of the India Nuclear programme" He was founding director and a professor of the "Tata Institute of fundamental Research" (TIFR). He was also founding director of the Atomic Energy establishment in Trombay (AFFT). It was renamed the "Bhabha Research Centre" after his name to honour his achievements. These two institutes are the pillars of India nuclear development. Homi Bhabha was born into a prominent parsi family with a gold spoon in his mouth Through his family background, he has relationship with businessmen Diashow maneck petit and Dorabji Tata.

He was born on october 30th, 1909. His father's name was Jehagir Hormusji Bhabha. Who has was a renowned parsi Lawyers and education at Bombay's cathedral John cannon school. At the age of 15 after passing his senior cambridge Examination with honours, he was admitted to Eiphinstone college. After that he attended the Royal Institute of Science in the year of 1927 before joining as college of cambridge university. It was planned that he would obtain a degree in mechanical engineering from Cambridge and then after returning to India, he would join Tata steel mills in Jamshedpur as a metallurgist.

Although initially it was planned to take toward the career of bhabha in mechanical engineering, his father quickly discovered his aim Bhabha appeared for Tripos exam in June 1930 and passed with a first class. After that he said through his career with studies in mathematics under Paul Dias. Then he completed the mathematics tripos. During his father for a doctorate in physics, he used to work at cavendish laboratory. During that time the research centre was experiencing some famous scientific achievement. One of them is the discovery of the neutron by James chadwick during the academic year of 1931-32. Bhabha was appreciated by the ward named the salomons studentship in engineering in the year of 1932, he achieved his first class in his mathematical. Homi Bhabha received his doctorate after publishing his paper on cosmic radiation, helped him win the Isaac newton studentship. During this studentship, he split his time between working in cambridge and with Neil Bohr in copenhagen.

In year 1935, he published his research paper on the determination of the cross-section or eletronic-position scattering which he later renamed "Bhabha scartering" to honour his contribution. This theory led Homi bhabha toward the experimental verification of Albert Einstein's. "Theroy if relativity". After that he received the Senior studentship of 1851 Exhibition and continued his research work until the outbreak of world war II after world war-II he came back to India and decided work as a reader in the physics departmment of the Indian Institute of science at the Indian Institute of Science in Bengaluru, headed by Nobel Laureate C.V.Raman in time. Homi bhabha managed to convince one of the most notable congress party's senior leaders Jawaharlal Nehru to start the nuclear programme. He founded cosmic ray research unit at the organisation. In the year 1945, he founded the Tata Institute or fundamental research in Bombay and Atomic energy commision in 1948.

He was first chairman or this Institute under the leadership of Nehru, Homi Bhabha was appointed as the director of the Nuclear programme. He was acknowledge as the father of Indian nuclear power he alway emphasised the strategy or using india's large reserve of as the fuel instead of exporting uranium, which is expensive. Homi bhabha met an unexpected death when he was travelling on air indian which crashed on January 24, 1976.

Urvashi M. Parmar (Physic Dept.)

Science in Ancient India

One of the oldest civilization in the world, the Indian civilization has a strong tradition of science of technology. Ancient India was a land of sages and seers as well as a land of scholars and scientists.

"We owe a lot to the ancient Indians, teaching is how to count. Without which most modern scientific discoveries would have been impossible." – Albert Einstein

Here is a list of 18 contributions, made by ancient Indians to the world of science of technology.

- | | | |
|-----------------------|-----------------------|-----------------------------------|
| 1. The Idea of zero | 2. The decimal system | 3. Numeral notations |
| 4. Fibonacci Numbers | 5. Binary Numbers | 6. Chakravala method of algorithm |
| 7. Ruler measurements | 8. A theory of Atom | |

'Veda' means knowledge. Since we call our earlier period vedic, this is suggestive of the importance of knowledge and science, as means of acquiring that knowledge, to that period of Indian history. For quite some time scholars believed that this knowledge amounted to no more than speculations regarding the self. We know that vedic knowledge embraced physics, mathematics, astronomy, cognition & other disciplines.

Some of the Ancient Scientists whose contributions are amazing.

Aryabhata :

Aryabhata is the author of the first of the later siddhantas called Aryabhatiyum which sketches his mathematics, Planetary and cosmic theories. This book is divided into 4 chapters.

- (i) The astronomical constants & the sine table.
- (ii) Mathematics required for computations.
- (iii) Division of time & rules for computing the longitudes of planets using eccentrics & epicycles.
- (iv) The armillary sphere, rules relating to problem of trigonometry & the computations of eclipses.

Aryabhata also gave the idea of zero by far one of the most important discoveries.

Aryabhata was aware of the relativity of motion as clear from this passage in his book "Just as a man in a boat sees the trees on the bank move in the opposite direction, so an observer on the equator sees the stationary stars or moving precisely towards the west."

Brahmagupta :

One of Brahmagupta's chief contributions is the solution of a certain second order indeterminate equations which is of great significance in number theory.

Another of his books, the Khanda-Khadjika, remained a popular handbook for astronomical computations for centuries.

Concepts of space, time & matter :

Yoga-Vasishtha (YV) is an ancient India text, over 29,000 verses, long, traditionally attributed to Valmiki. YV may be viewed as a book of philosophy or as a philosophical novel.

YV appears to accept the idea that law are intrinsic to the universe. In other words, the law of nature in an unfolding universe will also evolve.

Some of the verses from this book are.

"Time"

Time cannot be analyzed Time uses two balls known as the sun & the moon for its pastime (16)

The world is like a potter's wheel: the wheel looks as if it stands still, though it revolves at a terrific speed [18].

"Space"

There are three types of space - the psychological space, the physical space and the infinite space of consciousness [52]

The entire universe is contained in a subatomic particle, and the three worlds exist within one strand of hair [404]

"Matter"

In every atom there are worlds within worlds [55]

There are countless universes, diverse in compositions & space-time structure [401].

"Mind"

Thought is mind, there is no distinction between the two [41]

The body can neither enjoy nor suffer. It is the mind alone that experiences [109-111].

The shri-Yantra :

Yantra is a tool or diagram illustrating sacred geometrical arrangement in a symmetrical design which unites cosmic positive energies, negative energies & help individuals uplift spiritually. These have strong astronomical aesthetics.

It consists of nine interlocking triangles, four upwards one which represent shiva and five downwards one representing shakti. This triangle intersects to form 43 smaller triangles organised in 5 concentric levels. The three dimensional protection of shri yantra is called mahameri mount mera derive its name from this shape.

Mehta Devanshi Divyang
T.Y.B.Sc.

We must use time as time as a tool, not as a couch. - John F. Kennedy

If you judge people, you have no time to love them. - Mother Teresa

Nothing is permanent in this wicked world, not even our troubles. - Charlie Chaplin

Our Scientific Heritage

Science and Mathematics were highly developed during the ancient period in India. Some famous ancient Indian Mathematicians were Baudhayan, Aryabhata, Brahmagupta, Bhaskaracharya, Mahaviracharya. Some famous scientists were Kanad, Vardhamihira, Nagarjuna, Medical Science was also highly developed in ancient India.

1. The idea of zero :

Little needs to be written about the mathematical digit 'zero' one of the most important inventions of all time. Mathematician Aryabhata was the first person to create a symbol for zero and it was through his efforts that mathematical operation like addition and subtraction started using the digit, zero. The concept of zero and integration into the place-value system also enabled one to write numbers, no matter how large by using only ten symbols.

2. The Decimal System :

India gave the ingenious method of expressing all numbers by means of ten symbols-decimal system. In this system each symbol, Each symbol received a value of position as well as an absolute value. Due to the simplicity of the decimal notation, which facilitated calculation, this system made the uses or arithmetic in practical inventions much faster and easier.

3. Fibonacci numbers :

The fibonacci numbers and their sequence first appear in Indian mathematics as matrameru, mentioned by pingala in connection with the sanskrit tradition of prosody.

4. A theory of atom :

One of the notable scientists of the ancient was Kanad who is said to have devised the atomic theory centuries before John Dalton was born. He speculated the existence of any of a small indestructible particles, much like an atom. he also stated that any can have two states. absolute rest and a state of motion.

Numeral notations, Binary numbers, chakravala method of Algorithms, The Heliocentric theory, wootz steel, smelting of zinc, seamless metal Globe. Plastics surgery, Contract surgery, Ayurveda, Iron-cased Rockets extra science and technology. Discoveries ancient India gave the world, that will make you feel proud to be an Indian.

Albert Einstein said that,

"We owe a lot to the ancient Indians, teaching us how to count. Without which most modern scientific discovering would have been impossible"

Chauhan Zinal Kriansinh

T.Y.B.Sc.

Indian Scientists

Science is an important part of our everyday life, even more so than we notice. From our fancy gadgets to the technologies we can't live without, from our humble light bulb to the space explorations, it is all gift of science and technology.

I wonder what would we be doing if none of these things were invented ? How often do we take out the time to think about those extra ordinary minds who made life easier for us ? Here is a list of scientists who achieved a global recognition.

1. **C V Raman** : Chandrasekhara Venkata Raman won the Nobel Prize for physics in 1930 for his pioneering work on scattering of light. Born in Tiruchirapali on November 7, 1888, he was the first Asian and first non-white to receive any Nobel Prize in the sciences. Raman also worked on the acoustics of musical instruments. He was the first to investigate the harmonic nature of the sound of the Indian drums such as the tabla and mridangam.

He discovered that, When light traverses a transparent material, some of the deflected light changes in wavelength. This phenomenon is now called the Raman scattering and is the result of the Raman effect.

In October 1970, he collapsed in his laboratory. He was moved to a hospital and the doctors gave him four hours to live. He survived and after a few days refused to stay in the hospital as he preferred to die in the garden of his institute surrounded by his flowers. He died of natural causes on 21 November 1970.

Before dying, Raman told his students, Do not allow the journals of the Academy to die, for they are the sensitive indicators of the quality of science being done in the country and whether science is taking root in it or not.

2. **Homi J. Bhabha** : Born on October 30, 1909 in Bombay, Homi Jehangir Bhabha played an important role in the Quantum theory.

He was the first person to become the chairman of the atomic energy commission of India. Having started his scientific career in nuclear physics from Great Britain, Bhabha returned to India and played a key role in convincing the Congress party's senior leaders most notably Jawaharlal Nehru, to start the ambitions of nuclear programme.

Bhabha is generally acknowledged as the father of Indian nuclear power. He died when Air India flight 101 crashed near Mont Blanc on 24 January 1966.

3. **Venkatraman Radhakrishnan** : Venkatraman Radhakrishnan was born on May 18, 1929 in Tondiarpet, a suburb of Chennai. He was an internationally acclaimed Astrophysicist and also known for his design and fabrication of ultrahigh aircraft and sailboats.

4. **S.Chandrasekhar** : Born on October 19, 1910 in Lahore, British India, he was awarded the 1983 Nobel Prize for physics for his mathematical theory of black holes. The Chandrasekhar limit is named after him. He was nephew of C V Raman, Chandra became a United States citizen in 1953. His most celebrated work concerns the radiation of energy from stars, particularly white dwarf stars, which are the dying fragments of stars.

5. **Shrinivasa Ramanujan** : Born on December 22, 1887 in Tamil Nadu, Ramanujan was an Indian mathematician and autodidact who, with almost no formal training in pure mathematics, made extraordinary contributions to mathematical analysis, number theory infinite series and continued fractions.

By age 11, he had exhausted the mathematical knowledge of two college students who were lodgers at his home. He was later lent a book on advanced trigonometry written by S.L. loney. He completely mastered this book by the age of 13 and discovered sophisticated theorems on his own.

We hand't known before that he faced a lot of health problems while living in England due to scarcity of vegetarian food. he returned to India and died at a young age of 32.

6. **Jagadish Chandra Bose** : Acharya J.C.Bose was a man of many talents. Born on 30 Novemeber. 1858 in Bikarmpur, west Bengal, he was a polymath, physicist, biologist, botanist and archeologist. He pioneered the study of radio and microwave optics, made important contributions to the study of plants and laid the foundation of experimental science in the Indian subcontinent. He was the first person to use semiconductor junctions to detect radio signals, thue demonstrating wireless communication for the first time. What's more, he is also probably the father of open technology, as he made his inventions and work freely available for others to further develop. His reluctance for patenting his work is legendary.

7. **Vikram Sarabhai** : Considered as the father of India's space programme, Vikram Sarabhai was born on 12 August, 1919 in the city of Ahmedabad in Gujarat. He was instrumental in the setting up of the indian space Research organization (ISRO), when he successfully convinced the Indian government of the importance of a space programme for a developing nation after the launch of the Russian sputnik, in this quote :

There are some who questions the relevance of space activities ins a devoloping nation. To us, there is no ambiguity of purpose. We do not have the fantasy of competing with the economically advanced nations in the exploration of the moon or the planets or manned space-flight.

But we are convinced that if we are to play a meaningful role nationally, and in the community of nations, we must be second to none in the application of advanced technologies to the real problems of man and society.

8. **APJ Abdul Kalam** : Avul Pakir Jainulabdeen Abdul Kalam, born on october 15, 1931 is an Indian scientist who worked as an Aerospace engineer with defense Research and Development organisation (DRDO) and Indian Space Research Organisation (ISRO)

Kalam started his career by designing a small helicopter for the Indian Army in 1969, Kalam was transferred to the Indian space research organization (ISRO) where he worked as project director of India's first indigenous satellite Launch vehicle (SLV-III) which successfully deployed the Rohini satellite in near earth's orbit in July 1980.

He also served as the 11th president of India from 2002 to 2007. Kalam has received several prestigious awards, including the Bharat Ratna, India's highest civilian honour.

Patel Surbhi Dilipbhai
T.Y.B.Sc., Microbiology

Sexualism in India

Sex racket is the practice of engaging relatively discriminate sexual activity in general with someone who is not a friend or relative in exchange for immediate payment. Now a day in india there are many brothels. In india the women join brothels because of unemployment to earn money. Many families forced their child to join brothels.

Legalising prostitution in india can reduce the spread of sexually transmitted diseases like "AIDS. It seems rather unreasonable that a prostitution would risk getting arrested and take measures like telling their customers or doctor that they have sexually transmitted diseases. If prostitution is criminalized the government cannot mandate any basic regulations like wearing condom and doing weekly checkups for any kind of sexually transmitted diseases. If any person is addicted to sex then it is harmful to his/her health.

On May 19, the supreme court of india made headlines by giving direction for recognizing prostitution as profession and emphasising that sex workers, like any other profession are entitled to dignity and constitutional rights. Mumbai, Kolkata, Dehli are big cities that handle brothels are operating illegally in large numbers. The British Raj enacted the cantonment Act in 1984. Section-7 of the statute prohibits prostitution in or near public place. Section-3 of statute [17] imposes imprisonment of 2-3 years with fine for keeping brothels or allowing premises to be used as brothels. Section-5 [18] imposes imprisonment of 3-7 years with fine for procuring a person for the purpose of prostitution without their consent. These are laws for prostitution.

According to case study of BHUJ there are about 282 sex workers females and as per research most of females are between 41-50 age groups. Based on data the females are working as brothels for 4-5 years in Bhuj. Hotspots areas in Bhuj are Bhid gate, GIDC Aavas, Junavas, Madhapur and etc.

From the whole article the moral is that the females in india have compulsion to join brothels for money. The parents should take their child so that they cannot go to wrong way like this. According to my opinion prostitution should be banned in india.

GOSWAMI JENILGIRI BHARATGIRI

CLASS - F.Y B.S.C

*A bird doesn't sing because it has an answer,
it sings because it has a song. - Maya Angelou*

To accomplish great things, we must dream as well as act. - Anatole France

"Azadi Ka Amrit Mahotsav"

India is going to complete 75th year of independence on 15th August 2022. Government of India decided to celebrate 75 years of independence of India today tribute to freedom fighters. so, they decided to do various program and the government named the celebration as "Azadi ka Amrit Mahotsav". Azadi ka Amrit Mahotsav means 'The festival of the energy of freedom'.

Our honourable prime minister Narendra Modi started 'Azadi ka Amrit Mahotsav' by flagging off a 'Dandi March' from Sabarmati Ashram, Ahmedabad in 12th March 2021. In India every state, union territory and Indian embassy have joined to celebrate 'Azadi ka Amrit Mahotsav'.

The celebration started 75 weeks before our 75th anniversary of independence and will end on 15th August 2023. In 75 weeks, every week some events are organized and we are going to celebrate 'har gar Tiranga' between 13 to 15 August 2022.

Theme of 'Azadi ka Amrit Mahotsav' is 'freedom struggle', 'idea@75', 'Achievement@75', 'Action@75' 'Resolves@75'



ACHIEVEMENT

Achievements@75



Freedom struggle



Ideas@75



Actions@75



Resolve@75

Theme of 'Azadi ka Amrit Mahotsav'

Various social and cultural programs will be organized in the festival along with demonstration of technical and scientific achievements. We are going to find unseen hero hidden somewhere in the pages of history. Hence the Mahotsav will be celebrated as a 'JAN-UTSAV', the festival of the people of India in the spirit of 'JAN- BHAGIDARI', we are all partners and stakeholders in the development of our country.



We all know that India has a rich historical consciousness and an immeasurable store of cultural heritage to feel proud of. Our Indian history is full of bravery, spirituality and art. India suffered the atrocities of British rule for many years. people of India got together and fought for freedom. Gandhiji's Satyagraha gave a unique direction, and martyr like Subhash Chandra Bose, Lala Lajpatrai, Bhagat Singh and many more freedom fighter. After that finally in 1947 Britishers had to leave this country. Sardar Patel made India as strong as iron. B.R. Ambedkar gave us a new constitution.

This huge building stood on the bases of independent. Then Azadi said, "I am not a destination, I am way, it is just a beginning". What was called a beginner country reached Mars orbit in their first attempt. "MAKE in INDIA" these three words made our name in the world. "वसुधैव कुटुम्बकम्" India has come to believe that the whole world is our family. The British went saying that, 'after we left your country will disintegrate', would not have thought that India will shine as a largest democracy. Today India is one, united and the fastest growing economy. Let's celebrate the 75th year of freedom, unity and democracy. In 2022 India completed 75 years of its independence. Let's we celebrate "Azadi ka Amrit Mahotsav".

Prashant R. Helaiya
T.Y.B.Sc. (Microbiology)

India and Science

The great sages of our ancient India have gifted invaluable heritage of science to the world. They have made outstanding contribution in the field of metallurgy Chemistry, Astronomy, Astrology, Vastushastra and physics. It is a matter of great pride for us. India has contributed not only in the field of literature, art, religion, education and philosophy but also it has made immense contribution in the field of science and technology. Modern age researches have proved that India has scientific attitude along with religions outlook.

Metallurgy :

Since ancient age, the people of India used metallurgy in their practical life. Ancient India made extraordinary progress in the field of metallurgy. A metallic idol of a female dancer discovered from Indus valley civilization is an exemplary achievement of ancient India. In South India, during the Chola period numerous metal idols were made. The statue of Natraja a masterpiece in sculpture is famous all over the world. It is preserved in a museum at Chennai. All of them have important place in the history of India.

Chemistry (Alchemical hore) :

Chemistry is an experimental Science. This science is very useful for various plants, minerals, seeds for agriculture, making of various metals or to bring changes in them. It is also useful for making medicine.

Acharya Nagarjun, a learned Buddhist of Nalanda University is known as Acharya in the field of Chemistry. He had written books like Rasaratnakar and Arogyamanjan Acharya Nagarjuna advocated the use of Alopahy along with herbal medicines. It is believed that the use of mercury ash as a medicine was initiated by him. Nalanda University had its own school of chemistry and building for study and research. The description of main rasa, uprasa, and research. The description of main rasa Upasra, ten types of poisons as well as various types of salts and ash of minerals is in the chemistry.

Science of Medicine and Surgery :

Indian attained an unprecedented achievement in the field of medicine and surgery. Since ancient period Maharshi Charak. Maharshi Shushrut and Vagbhatta pioneered the Indian medicine science and surgery through their intense research and research to the greatest height.

Maharshi, charak has written a book charak Samhita in which he has mentioned over 2000 medicinal herbs. Maharshi shushrut has mentioned instruments used in surgery.

The instruments were so sharp that they around split single vertical hair in two divisions. Vagbhatta has written a book "Vagbhatta Samhita", is also a very important work. Study of charak Samhita, shushrut samhita and vagbhatta samhita is very useful for every doctor. They were expert gynaecologists and pediatricians.

Veterinary science was developed in ancient India. They wrote books on disease related to the horses (Ashrua) and elephants (Hasti). Among them 'Hasti, Ayurveda', Shalihotra and 'Ashwashastra', are well know. The scholars/science writer of medicine vagbhatta made valuable contribution through his work 'Ashtang friday' in the field of diagnosis.

Mathematics :

Many speech making mathematical discoveries were considered to be made in India through which contemporary global affairs are carried out. The gifts of India to the world are discovery of Zero, decimal systems, algebra, theorem of Boddahayan, Geometry and Arithmetic. Aryabhatta discovered 'Zer'(O), the process of writing zero after figures was discovered by the sage named 'Gautsamad'. The ancient Indian mathematicians have decided the names of numbers made up by placing 53 zeros after 1 (one). decimal system had been seen for measuring and weighing instruments which had been found from the remains of 'harappa' and 'Mohan-Jo-daro'.

Apart from this, various aspects of Mathematics had been discussed by many scholars in their books. Among them, the scholars like baddhayan, Aapastambham Katyayan Bhaskaracharya and bhrmhagupta are included.

Astronomy and Astrology :

Astronomy is the most ancient science. Many works related to Astronomy had been written in India. An organized and deep study of Astrology was made by Indian ancient universities. Planets and their movements, constellations. Planets and their movements, Constellations and other celestial objects were used for calculations through which astrology and astronomy were developed remarkably. Predictions were made on the basis of planetary movements. Aryabhatta made a remarkable contribution in the field of astronomy. So that first Indian satellite was named "Aryabhatta" on his name. He declared that the earth rotates on its own axis and he proved that the basic reason for lunar eclipse is the shadow of the earth, which was addressed as 'Ajarbhar' by the scholars. In the same manner, Brahmagupta popularized the laws of gravitation in his book "Brahmasiddhant".

Varahmihir was the great astrologer and astronomer who divided astrology in 3 sections - Tantra - flora and Samhita.

Krishna D. Parmar
F.Y.B.Sc.

It is better either to be silent or to say things of more value than silence. ...

*The world would be happier if men had the same capacity to be silent
that they have to speak. ...*

Silence is the unbearable repartee. ...

Most of us know how to say nothing; few of us know when.

વી.પી.સાયન્સ કોલેજમાં વીર વિદ્યલભ પટેલ વ્યાખ્યાન માળા યોજાય

આ.પ્રસંગે આ.વિ. મંડળના વી.પી.સાયન્સ કોલેજના આયોજન હેઠળ આયોજન કોલેજના સ્ટેન્ડ હેલમાં કરવામાં આવ્યું હતું.



સીવીએમ યુનિવર્સિટીની ઘટક સંસ્થાઓ તથા ચાર્ટર્ડ વિદ્યાર્થીઓ સંચાલિત સંસ્થાઓ દ્વારા રક્તદાન શિબિર

આ.પ્રસંગે આ.વિ. મંડળના આયોજન હેઠળ આયોજન કોલેજના સ્ટેન્ડ હેલમાં કરવામાં આવ્યું હતું.



વી.પી.સાયન્સ કોલેજના આયોજન કાર્યક્રમો ૨૦૨૩નું આયોજન

આ.પ્રસંગે આ.વિ. મંડળના આયોજન હેઠળ આયોજન કોલેજના સ્ટેન્ડ હેલમાં કરવામાં આવ્યું હતું.



વી.પી.સાયન્સ કોલેજનો વાર્ષિકોત્સવ ઉજવ

આ.પ્રસંગે આ.વિ. મંડળના આયોજન હેઠળ આયોજન કોલેજના સ્ટેન્ડ હેલમાં કરવામાં આવ્યું હતું.



વી.પી.સાયન્સ કોલેજના વિદ્યાર્થીઓ સીકાટની મુલાકાતે

આ.પ્રસંગે આ.વિ. મંડળના આયોજન હેઠળ આયોજન કોલેજના સ્ટેન્ડ હેલમાં કરવામાં આવ્યું હતું.



વી.પી.સાયન્સ કોલેજમાં નેશનલ મેથેમેટીક્સ ડે ઉજવાયો

આ.પ્રસંગે આ.વિ. મંડળના આયોજન હેઠળ આયોજન કોલેજના સ્ટેન્ડ હેલમાં કરવામાં આવ્યું હતું.



વી.પી.સાયન્સ કોલેજમાં ઇન્ડસ્ટ્રીયલ કેમેસ્ટ્રી વિભાગમાં વ્યાખ્યાન

આ.પ્રસંગે આ.વિ. મંડળના આયોજન હેઠળ આયોજન કોલેજના સ્ટેન્ડ હેલમાં કરવામાં આવ્યું હતું.



વી.પી.સાયન્સ કોલેજમાં કોમ્યુનિકેશન-૨૦૨૩નું આયોજન

આ.પ્રસંગે આ.વિ. મંડળના આયોજન હેઠળ આયોજન કોલેજના સ્ટેન્ડ હેલમાં કરવામાં આવ્યું હતું.



વી.પી.સાયન્સ કોલેજમાં ઓરીએન્ટેશન કાર્યક્રમ યોજાયો

આ.પ્રસંગે આ.વિ. મંડળના આયોજન હેઠળ આયોજન કોલેજના સ્ટેન્ડ હેલમાં કરવામાં આવ્યું હતું.



વી.પી.સાયન્સ કોલેજમાં બ્લડ ડોનેશન સિસ્ટીરીટી અંગેનો સેમિનાર

આ.પ્રસંગે આ.વિ. મંડળના આયોજન હેઠળ આયોજન કોલેજના સ્ટેન્ડ હેલમાં કરવામાં આવ્યું હતું.



વી.પી.સાયન્સ કોલેજમાં પક્ષીઓની ગણતરી માટે વાલીમ

આ.પ્રસંગે આ.વિ. મંડળના આયોજન હેઠળ આયોજન કોલેજના સ્ટેન્ડ હેલમાં કરવામાં આવ્યું હતું.



વી.પી.સાયન્સ કોલેજમાં મૂ-ફેસ્ટ ૨૦૨૩ ઉજવાય

આ.પ્રસંગે આ.વિ. મંડળના આયોજન હેઠળ આયોજન કોલેજના સ્ટેન્ડ હેલમાં કરવામાં આવ્યું હતું.



વી.પી.સાયન્સ કોલેજમાં પલ્લભ વિધાનગરની વી.પી.સાયન્સ કોલેજ બેઝમિન્ટન સ્પર્ધામાં રનર્સઅપ બની

આ.પ્રસંગે આ.વિ. મંડળના આયોજન હેઠળ આયોજન કોલેજના સ્ટેન્ડ હેલમાં કરવામાં આવ્યું હતું.



વી.પી.સાયન્સ કોલેજના વિદ્યાર્થીઓ જી.પી.એસ.સી.ની પરીક્ષામાં પસંદગી પામ્યા

આ.પ્રસંગે આ.વિ. મંડળના આયોજન હેઠળ આયોજન કોલેજના સ્ટેન્ડ હેલમાં કરવામાં આવ્યું હતું.



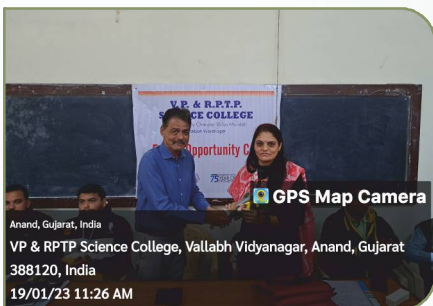
Activities of the Clubs 2022-23



Cultural Club



Debate Club



Equal Opportunity Cell



Fine Arts Club

Activities of the Clubs 2022-23



Innovation Club



Library Orientation



Personality Development Programme



Science Club



Placement Cell

Activities of the Sports Club 2022-23



National Service Scheme (NSS) - 2022-23



National Cadet Corps (NCC) - 2022-23



76th Annual Day







V. P. & R. P T. P. SCIENCE COLLEGE

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