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EDITION
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ANNUAL MAGAZINE **EQUILIBRIUM**



Department Of Chemistry
Hansraj College
University Of Delhi

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From the Principal's Desk



**Prof. Rama
Principal**

Congratulations to the members of Chemistry department for publishing the seventh issue of their annual department magazine “Equilibrium”.

Students and faculty of the department are creatively enhancing this platform every year. Efforts invested in the production and publication of this issue must have been an enriching experience for the students involved. I hope the magazine enjoys a wide readership.

Keep up the good work.

Message from Teacher-in-charge

Dr. Satish Chand

It is my great pleasure to share my views here. As everyone is aware, this complete academic year has gone in this pandemic due to Covid-19. We still don't know how long will it go further, but whatever the situation was, we all have adapted ourselves accordingly. We have shifted from classroom teaching-learning to online teaching-learning. This period from online admissions to exams, was very challenging. We have faced first wave of corona virus spread, which was not that much damaging, but now we are facing second wave, which is exploding. I hope everyone is well. I pray to the God that we all pass through this difficult phase of life bravely. I am sure that at the end of this pandemic, we will realize that, how many new things we have learnt from this. This period will always be memorable, may be as a nightmare. Tomorrow, again there will be new morning, we will meet again physically and live our life normally as it was earlier. I wish you all the best for your future.



Take care of yourself and your family.

Stay safe, stay healthy, be calm and always positive.

Message from Convener

Dr. Pratibha Pandey

A year passed and we have reached that stage once again where we have to bid goodbyes to our hard-working and beloved students. These years have been amazing as we worked together to build and strengthen our relationship through continuous learning, questioning, and self-improvement. As rightly said by late Dr. A.P.J. Abdul Kalam, "One of the very important characteristics of a student is to question. Let the students ask questions". We encouraged and would keep doing the same in the future as well, as it understands that Curiosity only leads to Solution. It fulfills its objectives and goals by not only providing a platform for the deep understanding of content, incorporating interdisciplinary knowledge as well as the ability and skills to apply that understanding and logic to solve multi-step problems, but also the right support, commitment, knowledge, and drives to follow through by our scintillating, passionate, and well-informed professors, and hard building resources and programs to explore, learn, achieve, and improve skills, and problem-solving capabilities and be an asset for the country. The Chemical Society wishes its students Success and Learning at each step and stage of their professional career and personal growth and development. We aim to keep building and strengthening our alumni community through participation, and collaboration. It will be better to end with the late Dr. APJ Abdul Kalam's quote again, "Don't fear failing in the first attempt because even the successful math starts with zero only". We wish all the outgoing students all the best and lots of success.



Parting words

President- Ankush Paul

You told Ankush to write his final words and what do you expect, A small paragraph? That's not happening and if you have been bored of my long notice messages all these years, here's a final one. Read along :-)

Maybe that's what life taught us and maybe you should learn too -
" Some journeys do not end with a goodbye not because you weren't lucky enough but may be because that's not the end of the journey. When you begin something in life, convince yourself twice or thrice if I want to be in this journey and when you have convinced yourself, start the journey try to remind yourself why you began it, because when we face days of adversities we often decide to give up and that's where you need to remind yourselves why you began. A lot of us might have prepared for some exam or another in recent past but every time we haven't been gifted with what we desired. So what?



No journey of this life is smooth, no journey will come easy and fall in your comfort zone but if you had been honest and true to your efforts, you would want to know the essence of the beautiful end that awaits you by not giving up. The times are hard and days are dull and it's okay to take time and analyse. But the sooner you remind yourselves of the beautiful end you had planned for yourselves, the amount of effort you had given in till now and you are ready to struggle again, I promise things will not only be good but they will be better than that it had been ever before. Let's give it a shot once again."

- For everyone who hasn't seen success lately in life and thought of giving up every now and then. A situation lot of semester 6 students would relate to.

Hello everyone I hope you all are taking good care of yourself and keeping a check on your loved ones.

Someone here and there every day will tell you "All is well that ends well" and the next moment I look at my life or my college life realising that's never true for some people. It doesn't really mean that all wasn't well but sometimes you gotta believe "Safar Khoobsurat Hai Manzil Se Bhi"

Rasayanatva was one of the most beautiful parts of that journey for when you plant a seed of perseverance and patience in anything and watch that grow old bearing fruits of your hard work and all heart that you gave in, is satisfying to one, especially to someone who always wished to lead from the front and set examples for everyone to follow. We began from scratch, received enormous struggles on our way but never lacked patience, trust of some of our most supportive professors and a team that was never ready to give up and today where I stand days after releasing the second edition of JRCS, our research newsletter, I am a happy and proud President to bid goodbye to this journey having faith in my junior team who would definitely take it from

here on taking Rasayanatva to newer heights no matter what resistance comes their way. (There is no end of sadness that I couldn't send one message saying "Meeting sharp at 12 40 in front of B4" being the president but I guess I have to stay up with that :-()

As an individual I never shied away from opportunities that came along the way, I was never afraid to enter unknown territories and explore and hereby the amount of experience I have garnered at the end of these 3 years is immense. From a very small age I was drawn into extracurricular activities and the same persisted in college wherein debating, social service, cinematography, creative writing and management became norm of life. All the inter college tournaments presiding roles in conferences, paper presentation, sponsorship roles and a lot of them was very new for me but today it's a cake walk because that's what happens when you are in midst of struggle and you decide to never give up. I wasn't just someone who would spend his whole day in Block B because you don't learn things in your comfort zone. Its only when you step out you do garner the experience of lifetime and lessons that stay with you forever.

Last but not the least, it's the people you meet and the bonds you form that become the part of the journey one takes away with themselves. You meet a lot of people in your college life, some of them for some days, some for few months and some for all the three years. Not all stay by till the final day but nevertheless they do play a role in your life because when you look back and flip through the pages, you find those days wherein you laughed and felt beautiful because of their presence. That's what life is - all these pieces make up the journey and without one of these, it would definitely be incomplete.

Times haven't been great for the past one year because if not physically, a lot of us have suffered mentally. Though we are lucky to have not wasted a single day of those 2 years having a Pandora box full of memories, the pangs of not being able to end this journey in each other's arms often brings a tear or two. If you would ask me personally, I had a quite a few goodbyes to do that remained incomplete and it hurts nevertheless how much we comfort ourselves.

"But I guess we aren't ending here at least in this MS Teams screen"

Once things get going may be in a year or two, we would definitely reach campus in a bunch, be through all those lanes we are missing, having a bite of whatever we are craving for, clicking pictures in places we have missed or maybe we would just hold hands and sit by in some corner of block C telling each other,

"It was difficult then but we found each other again"

I am optimistic, hope you are too.

Ankush Paul

President (Rasayanatva Society)

Hansraj College

Vice President- Prateek Jain

To me, the Department of Chemistry (and Hansraj) was a warm place where we learnt, had fun, made mistakes, realised them. It hosts a million memories. From attending labs in scorching heat to bunking classes just to sun bathe in the college ground, from running late and sneaking inside the classroom to attending online classes half asleep, we had a hell of a ride together. I too hoped of a perfect happy ending to college years, us singing and dancing to the latest bollywood beats, our photos with flying graduation caps and in all cringe worthy poses, but sometimes life throws you lemons, trying my best to make lemonades out of them. I believe Rasayanatva will leave an everlasting impression in me. I was a na i ve first year running errands for seniors, an enthusiastic junior drafting the annual magazine, hosting seminars and conferences, and now a proud vice president biding adieu. We achieved a lot together and i am proud of all we did these years. Looking forward to the the next chapter of life and all I can say is "Thank you" for every wonderful moment together. I will cherish them for years to come.



Regards

Prateek Jain

Vice President- Vasu Mittal

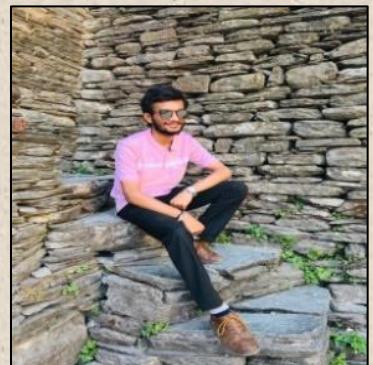
Wait, what! Is it that time of our graduation when we have to leave this exuberant journey? :') Resonating with Chemistry and able to crystallize my thoughts with it, helped me landing into "Humara Hansraj". Life is good since then, I have attracted like-minded people along with the best professors and really helpful staff, who are always there to help you grow. :))

Serving as Vice department in the department helped me experience this journey to success with one step closer, with the best team one could ask for. Team, which is not limited t o just elected members but extends to every individual batchmate and loving juniors. Everyone contributed a part of them in achieving this tremendous positive growth. I feel gratitude for all the experiences and achievements which this journey has given me.

I wish you all luck, keep making yourself and the department proud being a change-maker.

Regards

Vasu Mittal



Senior Advisor- Ayush Rana

A three-year-long journey at Rasayanatva now coming to its end has been completely enriching for me in all aspects. It has been a journey full of exciting events, regular challenges, a company of great teammates, and guidance from wonderful teachers. During this phase, I had experienced a number of activities, events in and around the college but these never matched the enthusiasm and joy I got in being a part of our very own Chemistry department society and all the events we have conducted till date.

In the previous session, we had conducted several events, talk sessions, ESTW national seminar, and fest. All these were well planned and wonderfully executed then by all the society members. And we thought to take it to newer heights in the upcoming year. But for this session, the whole scenario takes a completely different turn and everything came to a virtually connected online world.



Initially, I was a little apprehensive and nervous about the upcoming events and society's functioning because of facing such situations at first. But now when I see the kind of work done by all of us, it gives me a feeling of immense pride as a senior core team member about how perfectly we all had managed this session especially the National Conference and publication of Journal. The well-known saying that difficult and extreme circumstances always open the door for new opportunities is apt here. The way Rasayanatva adjusted and worked in this particular session was something to keep everyone positive and optimistic throughout. All the members of society especially juniors are praiseworthy and their efforts are really commendable in making this session too a successful one.

Like every college student, I also had dreams about a farewell, the last hug, and dancing with friends but it is not possible for this time. May it was there in our destiny to say a final goodbye to Hansraj and each other via screens but I surely believe that we all will meet some fine day at some different phase of our lives, when everything will get back to normal and we had conquered this hard phases, to relieve the memories and to have celebrations left of our share. Till then goodbye to all and wishing for everyone that we all achieve whatever we deserve and are aiming for.

Regards
Ayush Rana

Editors' Note

The entire Indian subcontinent has been under double whammy of the COVID 19 pandemic. The cataclysmic effect that it has around the entire nation is a thing to worry about. Amidst such pandemic situations, where the third world countries are facing devastating effects of pandemic



and where the entire world is divided between supporting Israeli brothers or Palestinian terrorists the only ray of hope comes from science. As a student of one the major branches of science, we must take a bow for the new scientific united front, which has emerged during this pandemic and helped the mankind in all possible means.



Science has nothing to do with politics, so keeping aside the earlier comments, let's focus on something really very important. The students of chemistry cannot imagine their subject without and experimental work. We know that experiments are an integral part of our subject, be it Physical Chemistry, Organic or Inorganic Chemistry. The pandemic situation has coerced the labs and departments to shut down, forcing students to focus majorly on theoretical part. This has brought a great rise in the number of students, who want to pursue their research work in the field of Theoretical Chemistry. This is a major development in the field of Chemistry. Unlike Theoretical Physics, which has been popular since past centuries, Theoretical Chemistry is comparatively a newer area of research. With the onset of the Quantum Mechanics, Theory of Relativity and String Theory, the 1900's have been a major success for Theoretical Physicists. This the primary reason for the huge success of this genre of Physics.

Although, J. Van 't Hoff is considered one of the most brilliant Theoretical Chemists of all time, this field is by and large a new concept which has been developed over last ten decades. Theoretical Chemistry unites principles and concepts common to all branches of chemistry. Within the framework of theoretical chemistry, there is a systematization of chemical laws, principles and rules, their refinement and detailing, the construction of a hierarchy. The central place in theoretical chemistry is occupied by the doctrine of the interconnection of the structure and properties of molecular systems. It uses mathematical and physical methods to explain the structures and dynamics of chemical systems and to correlate, understand, and predict their thermodynamic and kinetic properties. In the most general sense, it is explanation of chemical phenomena by methods of theoretical physics. In contrast to theoretical physics, in connection with the high complexity of chemical systems, theoretical chemistry, in addition to approximate mathematical methods, often uses semi-empirical and empirical methods.

In recent years, it has consisted primarily of quantum chemistry, i.e., the application of quantum mechanics to problems in chemistry. Other major components include molecular dynamics, statistical thermodynamics and theories of electrolyte solutions, reaction networks, polymerization, catalysis, molecular magnetism and spectroscopy.

Modern theoretical chemistry may be roughly divided into the study of chemical structure and the study of chemical dynamics. The former includes studies of: electronic structure, potential energy surfaces, and force fields; vibrational-rotational motion; equilibrium properties of condensed-phase systems and macro-molecules. Chemical dynamics includes: bimolecular kinetics and the collision theory of reactions and energy transfer; unimolecular rate theory and metastable states; condensed-phase and macromolecular aspects of dynamics. The field of theoretical Chemistry is very great in itself as compared to any other aspect of Chemistry. During these difficult times when experimental work is not possible, the major focus of the students should be towards the theoretical work. Hence instead of crying like a wuss over experimental parts not being performed, the area of concern should be to motivate more and more students to take up research work in Theoretical Chemistry.

Returning to this magazine ‘Equilibrium’, let us take a moment to appreciate this entire team of Rasayanatva for their brilliant contributions in publishing the first two editions of our Journal, JRCS. We would like to extend a heartfelt farewell to our seniors. They are just the best. I would also like to acknowledge and appreciate the entire faculty members of our esteemed department, for bearing with us and teaching us all in such a wonderful way, even when we are not present physically. At last we would like to thank all the doctors and front line workers, who are working day and night to cure the country. A quick word in the end to all, work hard and enjoy your life to fullest, study Theoretical Chemistry, listen to ‘The Element Song’ by Tom Letter and do watch the sitcom The Big Bang Theory while you are free.

All Hail to Chemistry!!!

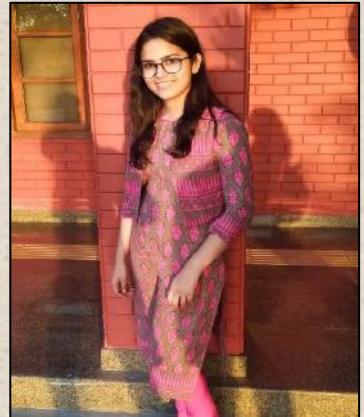
Your suggestions are more than welcome.

Do give us a feedback at- editorial.board.rasayanatva@gmail.com

Thank you all,
Happy Reading
Editor-in-Chief
Kirti Kashyap ‘Taijas’ and Prashansa Mehta

Note from General Secretary

"Just remember, Department comes first", I still remember these words and it was the only thing that kept me going since the first year. I stepped unaware about the functioning of the college societies but the unity and guidance I witnessed from the seniors allowed me to feel welcomed and included which ultimately inspired me to give back what I have learnt throughout the year. The array of opportunities, the hardwork the teachers put in and the amount of dedication the whole team has shown throughout the year has led to the another successful year of Rasayanatva. The success of any society belongs to the ones who worked really hard throughout the year and remained together till the end. Once again, Kudos to the whole team!!



A heartfelt and genuine thank you to everyone for believing in me and helping me in working as a General Secretary of Chemistry Department of Hansraj College.

Also, I wish all the best to the youngest of our families full of potential, our juniors, to take the society to the next level and take it as an opportunity to develop themselves.

I would also like to mention a quote by Fàíz Ahmèd for our seniors who must not be feeling good for not getting a proper farewell.

"Dil naumeed to nahi, nakaam hi to hai..."

Lambi hai gam ki shaam, magar shaam hi to hai"

Regards

Tanishka Sharma

General Secretary

Rasayanatva

Hansraj College

Faculty



Dr. Ranjana
Rastogi



Dr. Shampa
Bhattacharya



Dr. Renu
Parashar



Dr. Satish
Chand



Dr. Anjali
Saxena



Dr. Chetna
Gupta



Dr. Pratibha
Tiwari



Dr. Monica
Dinodia



Dr. Jyoti
Singh



Dr. Manoj
Kumar



Dr. Shailendra
K Singh



Dr. Himanshu



Dr. Shweta
Rastogi



Dr. Aparna
Bansal



Dr. Parul
Pant



Dr. Brijesh
Rathi



Dr. Ambika



Dr. Taruna
Singh



Dr. Amit
K Rawat



Mr. Harimohan
Meena



Dr. Surendra
Kumar



Dr. Nidhi
Rawat



Dr. Sunita
Gulia



Dr. Indrani



Dr. Sonu
Kumar



Dr. Gunjan
Arora

*"Dear students, best of luck to all of you. Always remember to just believe in yourself.
You can achieve anything."*

Council 2020-21



RASAYANATVA - The Chemical Society of Hansraj College



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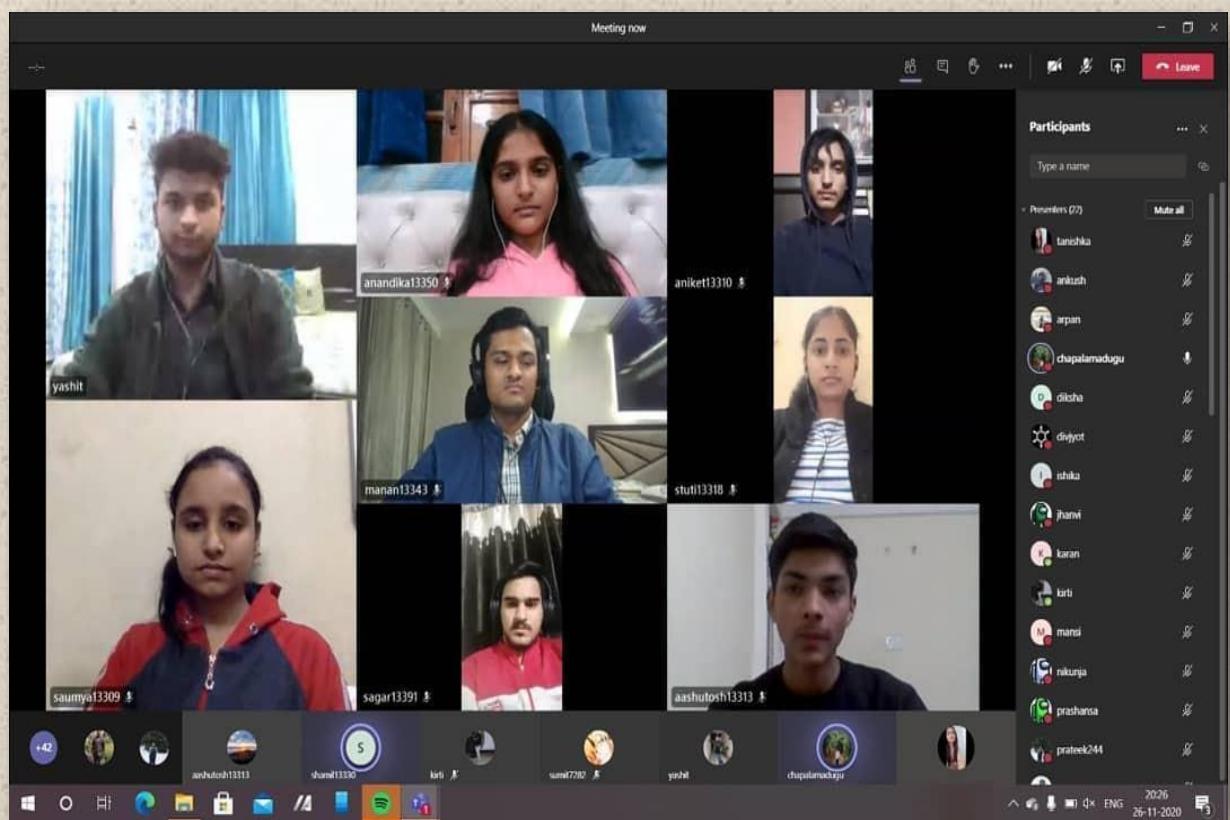
Shaifali



Salony

Junior-Senior Meetup

"Fresher handshakes aren't effective but farewell hugs unite us all." On this note of warmth and love as the Chemistry department of Hansraj College had bid adieu to its senior batch, with the same warmth and love they welcomed their juniors. Fresh souls with happiness among themselves blossomed in the same way as a flower does in spring. But every seed needs support and direction to blossom into a flower. To aid the juniors and make them aware about the know-how and working of the college, Rasayanatva-the Chemical Society of Hansraj College which is a departmental society had organized a junior senior meet up. The event was organized on 26th of November, 2020 on digital platform due to the ongoing pandemic. The event was a grand success and the credits of this success lies on the shoulders of Ankush, Tanishka, Yashit, Arpan and to Kirti. The juniors got know about the different societies working in the college and the pros and cons of joining them, opportunities lying ahead and most importantly the working of their department. Hope that they learned a lot from it.



Jamboree

Online Fresher's Party

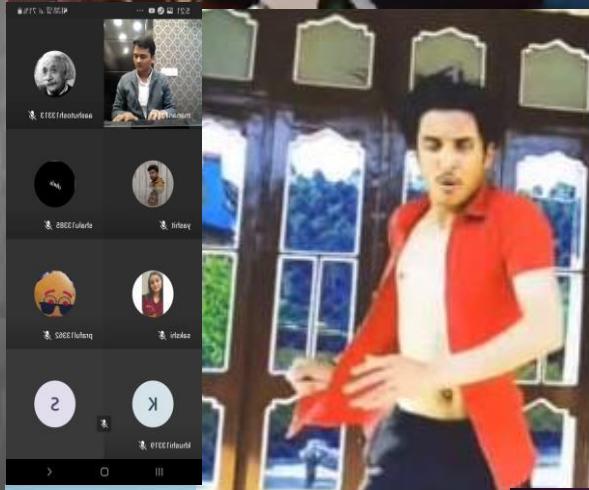


Every newly admitted student eagerly waits for the Freshers' since the time of admission. With the ongoing times where only online platform seems a feasible option and the expectations bounded by first years about dressing up seems a never reachable option, everybody felt a little shaking of hopes. Nevertheless, to facilitate the interaction of freshers with their seniors, believing this could be a great ice breaker, we at Rasayanatva, The Chemical Society of Hansraj College continued with the proud tradition of the college and welcomed the freshers in the friendly environment of the institution by organising JAMBOREE- FRESHERS'20 and providing them the platform to show cast their talents and open up their shyness. With the Bollywood theme and the successive games centered on that, the event succeeded in drawing the engagement of all by vibing together at the quirkiest games one could think of and the amazing performances delivered by the juniors.

• I HAVE SEEN MINT LEAVES IN A
BETEL LEAF,
I HAVE SEEN THE GEM OF A NOSE STUD,
I HAVE SEEN A FAIR BEAUTIFUL GIRL,
I HAVE SEEN A FAIR HANDSOME MAN,
THE MOON CHEATED LIKE A CHEATER
THEN ALL STARS SAID.'



5:02 PM | 47.8KB/s 2 You're an attendee now. Start



tanu13353

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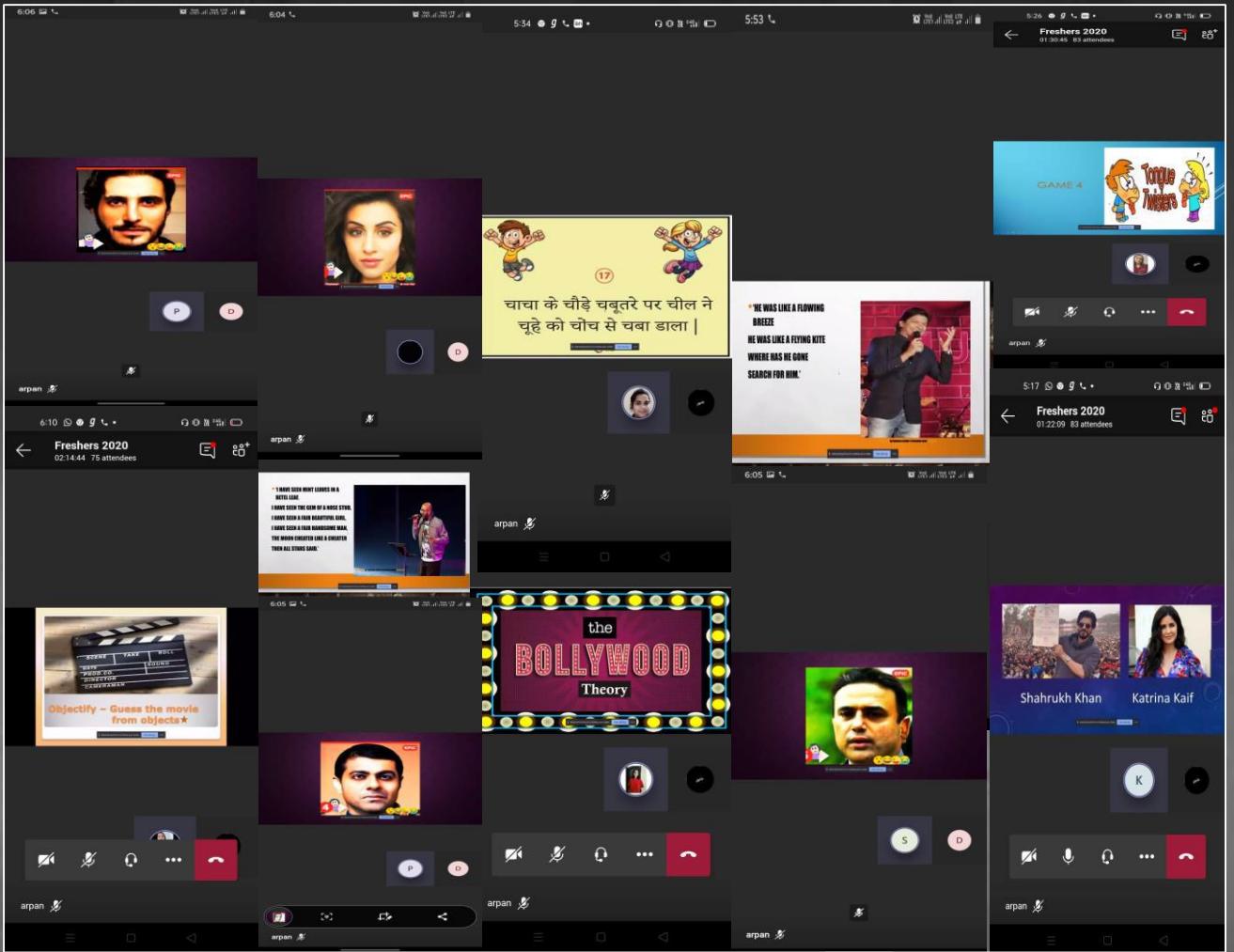
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deepanshi13369

chetan13349



amant13345



The event approached the end with the giggles and laughing sounds of all. The most adorable part was the active participation of the whole freshers batch in each game. They thanked seniors for the organisation of the enjoyable event. Although an online event but the efforts made by seniors bore fruit which was proved by the thorough involvement of juniors and their further mentioning that they enjoyed a lot. The online freshers party left us all with some screenshots reminding us of the sweetest and the indelible memories to be cherished life time.

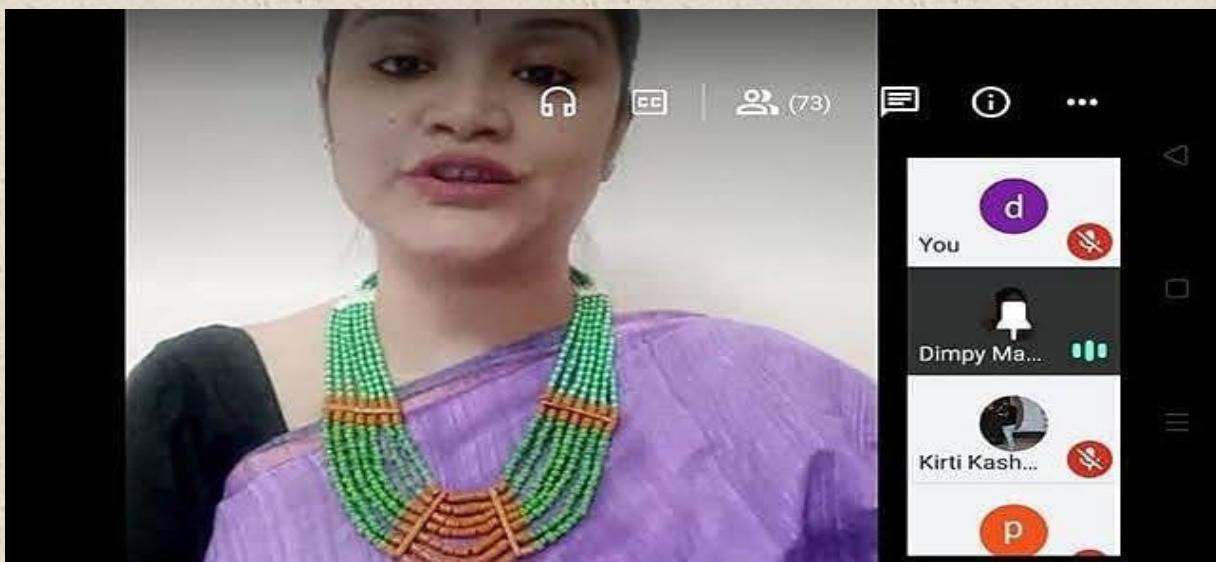
*Khushi & Tripti
(1st Year)*

Webinars

'How to cope up with stress during Covid-19 pandemic?'

Eloquently justifying 'life is unpredictable' the onset of the current pandemic has plagued us altogether instilling fear and uncertainty in our hearts and amidst this we are battling with the time zones and the real distances. But as they say, sometimes a little strength and a bright vision is all we need to cure the negativities encircling us. Bearing this in mind RASAYANATVA, The Chemical Society of Hansraj College hosted a webinar on 'How to cope with mental stress during COVID-19 pandemic?' With the potency to knit positivity with the words DR. DIMPY MAHANTA, a celebrated psychologist, author, writer, English Newsreader with AIR (Prasar Bharti) and Founding Head and Faculty, Department of Psychology, Cotton University, Guwahati was the orator of the talk. She jotted down all the troubles being faced by students owing to the current situation and offered her valuable insights on how to deal with the stress, fear and anxiety. She mentioned worry as a 'natural response' to this uninvited situation and how mental stress can be curbed with some very little actions if added in our lifestyle. Oftenly one is reluctant to vent out their emotions especially when it points to our 'mental health' but with very serene aura of Ma'am and expertise on sensitising psychological issues students came up with many ideas and questions. The session concluded with an intriguing questionnaire wherein Ma'am delivered every query asked by students thus catalysing the gathering to be more interactive. In the end, Dr. Pratibha Pandey, Convenor of The Chemical Society warmly thanked the guest for her valuable presence amongst us. It was indeed a wonderful and an engaging session and everybody who got to be the part of the webinar will cherish it.

-Prashansa Mehta
2nd year



'Science T: Opportunities for Chemistry Researchers'



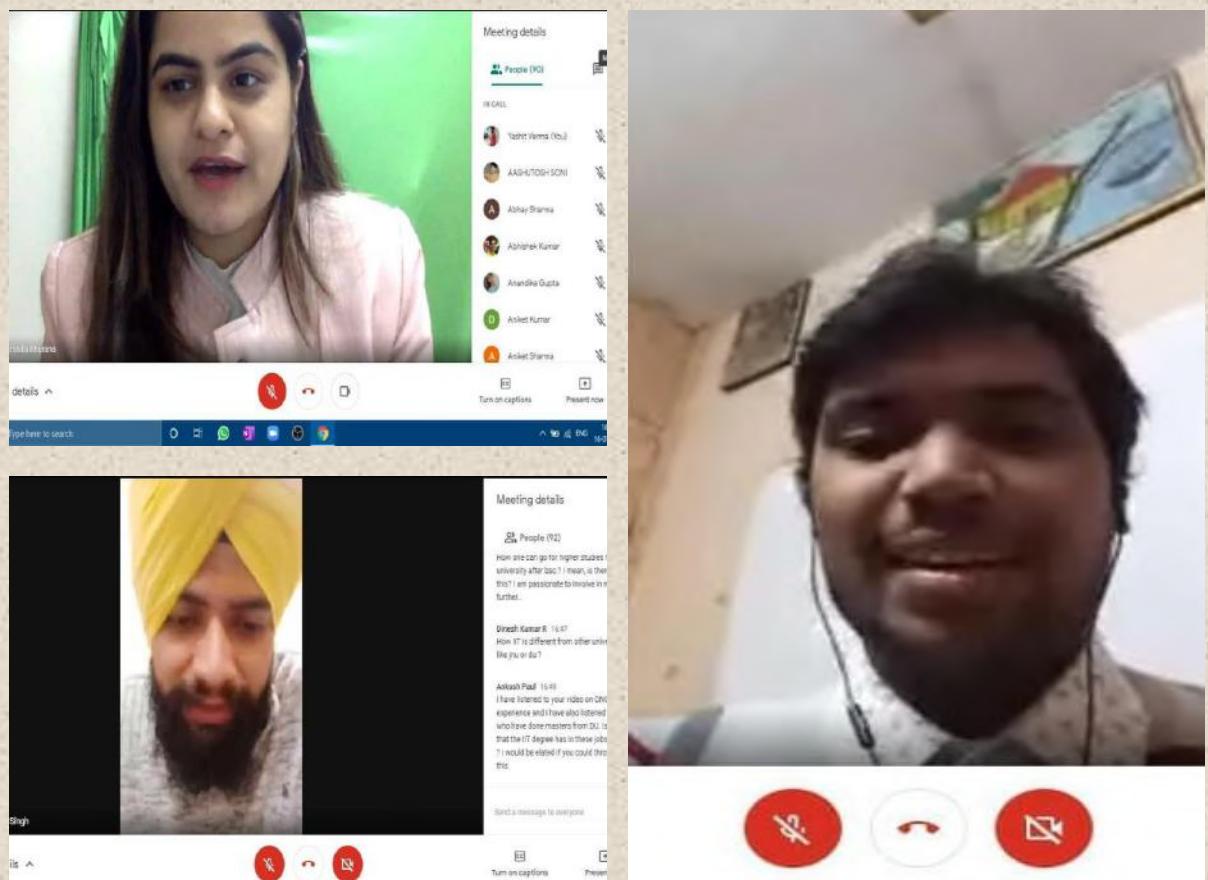
The common facts of today are a result of yesterday's research", said Duncan MacDonald. Indeed, the vast multifarious scientific objects that we observe around us were all once a part of research. It owes to the research field, that even in such harsh times as this the world can work continuously. To make the students understand the importance of research, Rasayanatva - the chemical society of Hansraj College had organized a talk with Dr. Vishal Rai, associate professor and swarnjayanti fellow, department of chemistry, IISER, Bhopal, on the topic of SCIENCE-T: Opportunities for Chemistry Researchers. Dr. Rai guided and vouchsafed the students that why research is important. While addressing the students through online mode, he motivated them to come up and become a researcher in chemistry. He added in his speech, the problems that modern researchers face, problems in analytical chemistry and other general problems related to publication of journals and scientific magazines. He also provided a solution of those problems. Meanwhile, when a student asked that can modern methods of chemistry be useful in re-inventing past, he replied to it that today we have much advanced analytical methods which are being applied in fields such as archeology and dating and they are producing very good results with minute errors. The lecture ended well. Dr. Ranjana and Dr. Shampa delivered the vote of thanks. The webinar was extremely helpful for the students who wanted to build their carrier in this field.

-Kirti Kashyap 'Taijas'
2nd year

'Guide to career opportunities'

Craving the path of the journey as you move ahead surely makes the destination look closer and beautiful. As destination less journey is meaningless, similarly pursuing studies without a career aim is pointless. Continuing the learning series at Hansraj, Rasayanatva, The Chemical Society of Hansraj College organised a webinar 'Guide to career opportunities' where Ms. Harshita Khurana, an educator at Unacademy, Mr. Puneet Goel, an executive officer at ONGC, Mr. Harmeet Singh, an executive officer at ONGC were the speakers of the event. Ms. Harshita enlightened the students with the private sector career opportunities available. It included hiring up by the core and non-core companies and she also shared her path to the designation where she is today. Mr. Puneet Goel and Mr. Harmeet Singh provided insights about career prospects in the public and corporate sector. It included hiring up by institutions such as ONGC, BARC, DRDO etc. The speakers also told that how they got into their fields and also the preparations they did since their college time. Then there was a question answer round which cleared the students mind of any question. There was discussion on GATE exam, IIT JAM, internships, subjects to be taken as general elective etc. The event ended with vote of thanks to the speakers by Dr. Pratibha Pandey. Dr. Shampa Bhattacharya too added her precious words to guide the students. Finally, the event ended with the speakers leaving their best wishes with the students.

- Tripti Yadav
1st year



National Conference on New Frontiers in Biosensing



Everything is the level : Just an example

LOW BLOOD SUGAR Hypoglycemia

HIGH BLOOD SUGAR Hyperglycemia

Signal

LOD

LOQ

Slope gives sensitivity

Concentration

Good Range

Bad Range

Blind spot is located at 75

Blind spot is located at 150

Blind spot is located at 225

Blind spot is located at 300

Sensor performance ???

Electrophoretically Deposited Polyamine Nanotubes Based Film for Cholesterol and Triglyceride Biosensor

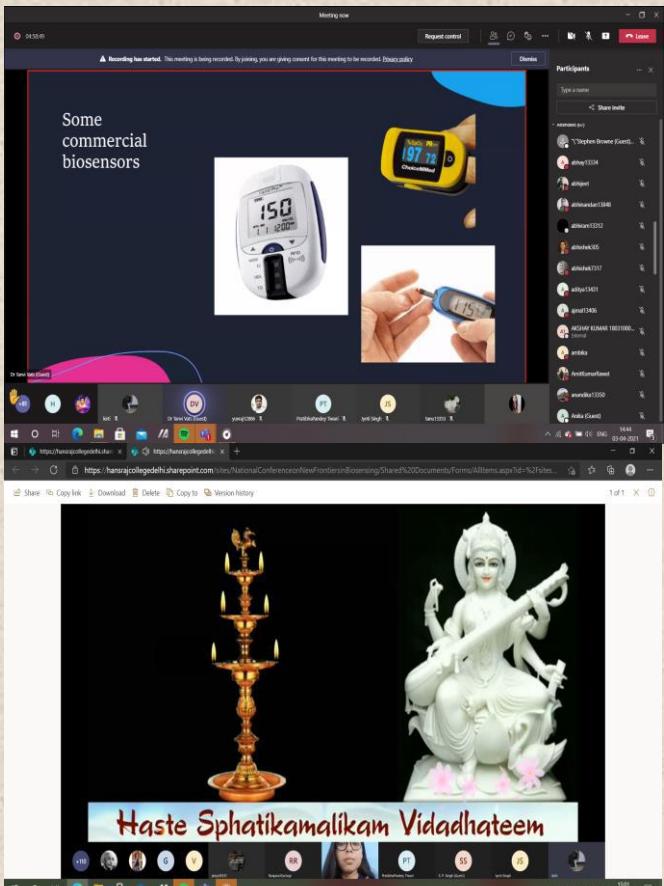
(A) Electrophoretic Deposition (ED) of Polyamine Nanotubes (PNTs) onto a Gold Electrode.

(B) Immobilization of Cholesterol Oxidase (CO) and Triglyceride Lipase (TGL) onto the PNTs.

Working Mechanism:

- Cholesterol + O₂ → Cholestanone + H₂O₂
- H₂O₂ + TGL → Fatty Acids + Glycerol
- Fatty Acids + CO → Triglycerides

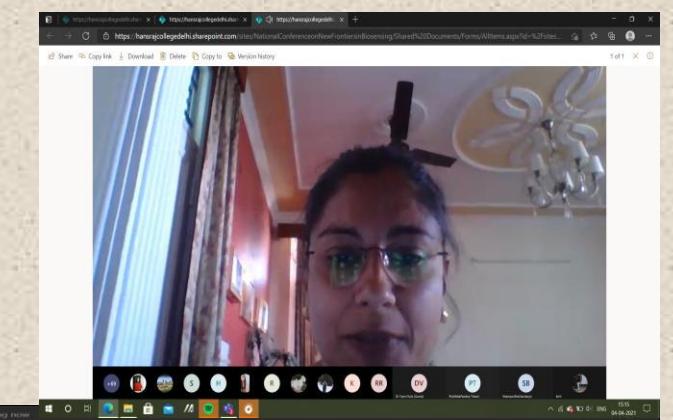
National conference on 'National Frontiers in Biosensing' was conducted by the Department of Chemistry of Hansraj College on 3rd April, 2021 in online mode. The conference brought together the eminent science professionals, students and faculty members to share information about enhancing biosensing technologies through development of new binding technologies and to share their recent findings on the range of topics related to biosensing and nanotechnology. The conference was graced by the presence of distinguished personalities like Dr. SP Singh, Principal Scientist and Associate Professor, National Physical Laboratory who talked about 'Next generation science: Gaps and Opportunities in Indian scenario', Dr. Chetna Dhand, Sr. Scientist, CSIR-AMPRI who acquainted everyone with 'Nano enabled approaches for biosensor development', Pranjal Chandra, Assistant Professor, IIT BHU who spoke on 'Nano/Bio Engineering Aspects in Design and Development of commercially viable sensor system', Dr. Tanvi Vats, Faculty Associate, Gautam Buddha University who lectured on 'Importance of IP Awareness in the Field of Biosensor Research.'



Apart from these sessions, poster and oral presentation competition were also conducted on science related topics. The speakers captivated the individuals for assessing the most up-to-date developments in biosensing technology, sharing authoritative knowledge from both commercial and academic worlds, best practice in the field as well as hearing about case studies of successfully integrated biosensing technologies. It focused on significant advances in the areas of sensorics, enabling increased sensitivity, portability and connectivity. It provided a unique platform for the people who are interested in doing research work in this field. The conference, indeed, provided a great learning experience to the youth and is expected to be mutually beneficial for young researchers and students. The Chemical Society of Hansraj hopes to bring many such events in future and nurture young budding scientists in the field and encourage them to undertake science endeavours .

Ritul Sharma

(1st year)



Adding more feathers to the cap...

Journal

We could not be any happier to mention that, Rasayanatva initiated a scientific journal/research newsletter namely JRCS- Journal of Rasayanatva, The Chemical Society of Hansraj College in this session. JRCS includes re-analyses of research in the form of review articles on the recent and particular topics from the vast spectrum of science and Chemistry in particular to provide a clearer understanding of facts and findings. Besides there is an article on a scientist who has done great research work but has not been into spotlight. These articles are credible, written in simplified language from trustable sources and contain citations thus wonderfully providing all the necessary information narrowed at one place. The central idea behind launching the journal is to foster scientific temperament and inculcate a rational approach amongst students. As of now, we have successfully released two issues which are accessible at our website as well.

Factophile

Another milestone we set this year is the release of an Instagram series called, ‘Factophile’ which brings an interesting facet of science by unraveling the mysteries of daily life and delving into daily life activities that might be explained by chemistry. Under this series, we release Instagram posts on weekly basis. From working action of coffee to the chemistry of ripening of fruits, we have covered wide range of topics, basic yet essential in a simplified way.

Literary Corner

ALL I WANT TO DO IS SLEEP

Sometimes all I want to do is sleep and never wake up.

No, I don't wish to die. Neither I'm sleep-deprived nor enervated.

I just want to transcend into a visionary chimerical world,

where the voices — too loud, screaming inside my head would no longer badger me
and sit back enjoying a nice cup of joe.

Where the voice — so nonchalant, trying to pave its way out of my heart since forever,
would finally meet its fate.

Where the sickening smell of judgement would not cross my nasal passage and the
aroma of acceptance would fill up the air.

Where my soul would not be mocked for the chase that seemed worthwhile to it.

Sometimes all I want to do is sleep, and not indite about my want to sleep.



Anandika Gupta
1st year

COVID-19 AND ONLINE EDUCATION

“For the things we have to learn before we can do them, we learn by doing them.”

Far before covid 19, the people must have never ever expected that they will go through such a tragic situation which can't be described in mere words. In an instant everything was shut down, the shops, the offices, the schools and the colleges. People got infected, many even lost their precious lives and it all seemed like a never ending misery. But as the time passed we began searching for ways to tackle the current situation smartly. The idea of Online education was put forward and soon became an important part of every student, even if they wanted it or not. Google meet, msteams and zoom calls became a daily routine. It was accepted as an economical and easy way of educating people while maintaining social distance. It was actually helpful in continuation of the education process, uncovered new areas of interest, time saving and provided multitasking opportunities.

But as it is said “nothing is perfect”. Even this concept has some major flaws which are being often ignored, including the never ending network problems and connectivity issues , lack of resources, mental and physical strains due to increased screen time, and the lack of interaction during the teaching- learning process. It is of great concern for the teachers as well, since they too have to work hard for hours but don't get the expected response for their efforts. Well, everything has its pros and cons and we can't conclude if it is totally good or bad. But one thing surely confirmed is that, ‘It is the 'need of the hour'. But, never let your hopes down and remember one thing “ Sometimes, even the wrong train,takes us to the right station”. Be safe and healthy.



*Tanu Sharma
1st year*

ADVANTAGES OF RISING EARLY

The great advantage of early rising is the good start it gives us in our day's work. The early riser has done a large amount of hard work before other men have got out of bed. In the early morning the mind is fresh, and there are few sounds or other distractions, so that work done at that time is generally well done.

In many cases the early riser also finds time to take some exercise in the fresh morning air, and this exercise supplies him a fund of energy that will last until the evening. By beginning so early, he knows that he has plenty of time to do thoroughly all the work he can be expected to do, and is not tempted to hurry over any part of it. All his work being finished in good time, he has a long interval of rest in the evening before the timely hour when he goes to bed. He gets to sleep several hours before midnight, at the time when sleep is most refreshing and after a sound night's rest, rises early next morning in good health and spirits for the labors of a new day.

It is very plain that such a life as this is far more conducive to health than that of the man who shortens his waking hours by rising late, and so can afford in the course of the day little leisure for necessary rest. Any one who lies in bed late, must, if he wishes to do a full day's work, go on working to a correspondingly late hour, and deny himself the hour or two of evening exercise that he ought to take for the benefit of his health. But in spite of all his efforts, he will probably produce as good results as the early riser, because he misses the best working hours of the day.

It may be objected to this that some find the perfect quiet of midnight by far the best time for working. This is no doubt true in certain cases. Several great thinkers have found by experience that their intellect is clearest, and they can write best, when they burn the midnight oil. But even in such cases the practice of working late at night cannot be commended. Few men, if any, can exert the full power of their intellect at the time when nature prescribes sleep, without ruining their health thereby; and of course the injury done to the health must in the long run have a bad effect on the quantity of the work done.



*Aman Deep Nain
1st year*

HYDROGEN FUEL CELL VS LITHIUM ION CELL

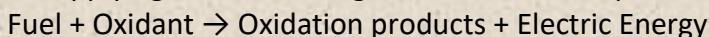
It will not be out of place if it is said that world is growing at a faster rate and non-renewable resources are exhausting rapidly. So it is the high time to for us to move towards renewable resource which are not only environmental friendly but also very efficient.

(i) HYDROGEN FUEL CELL

A fuel cell is an electrochemical which converts chemical energy contained in readily available fuel oxidant system into electrical energy.

Principle:

The fuel cell operates like a galvanic cell. The only difference is that the fuel and the oxidant are stored outside the cell. Fuel and oxidant are supplied continuously and separately to the electrodes at which they undergo redox reaction. Fuel cells are capable of supplying current as long as reactants are replenished.



H₂-O₂ fuel cell

APPLICATIONS:

1. The most important application of a fuel cell is its use in space vehicles, submarine or military vehicles.
2. The product H₂O is valuable source of fresh water by the astronauts.
3. Fuel cell batteries for automotive will be a great boom for the future.

Advantages:

1. The energy conversion is very high (75-82%).
2. Fuel cell minimizes expensive transmission lines and transmission losses.
3. It has high reliability in electricity generation.
4. The byproducts are environmentally acceptable.
5. They save fossil fuels.
6. Noise and thermal pollution are very low.

Disadvantages:

1. The major disadvantage of the fuel cell is the high cost and the problems of durability and storage of large amount of hydrogen.
2. The accurate life time is *also* not known.

Limitations:

1. The life time of fuel cells is not accurately known
2. It cannot store electricity
3. Electrodes are expensive ad short lived.
4. Storage and handling of H₂ gas is dangerous because it is inflammable

(ii) LITHIUM ION CELL

Lithium-ion battery is a secondary battery. As in lithium cell, it does not contain metallic lithium as anode. As the name suggests, the movement of lithium ions are responsible for charging '& discharging. Lithium-ion cell has the following three components.

1. A positive electrode (Layers of lithium-metal oxide) (cathode).
2. A negative electrode (Layers of porous carbon) (anode).
3. An electrolyte (Polymer gel) (separator).

APPLICATION:

1. cell phone,
2. PC,
3. portable LCD TV,
4. semiconductor driven audio, etc.

Advantages (or) Characteristics:

1. Lithium-ion batteries are high voltage and light weight batteries.
2. It is smaller in size.
3. It produces three time the voltage of Ni-Cd batteries.
4. It has none of the memory effect seen in Ni-Cd batteries.

Disadvantages

It is fragile and requires a protection circuit to maintain safe operation.

Built into each pack, the protection circuit limits the peak voltage of each cell during charge and prevents the cell voltage from dropping too low on discharge.

As every coin has two faces ,nothing is perfect in the world . Similarly the hydrogen fuel cell and lithium ion cell both are optimistically useful at their place . but in the field of transport lithium ion cell are ahead of hydrogen fuel cells.

Today, most electric vehicles use batteries, often based on Lithium-ion or Lead-acid chemistry. These batteries allow storing energy that was produced away from the vehicle and subsequently use that energy to create mechanical motion and make an e-bike, car or motorcycle move forward. Hydrogen Fuel cells, a rather old technology, created in 1839 by Sir William Grove and refined through the years, also allow storing

energy in the form of hydrogen to power electric vehicles. Like a battery, a fuel cell harnesses a chemical reaction to produce energy in the form of electricity. More specifically, Hydrogen fuel cells generate electricity, water and heat from hydrogen and oxygen.

The beauty of hydrogen fuel cells is that you get electricity, heat and (potable) water as outputs with hydrogen and oxygen as inputs. Oxygen is abundant in the atmosphere while hydrogen is the most common element in the universe. However, hydrogen tends to bond very easily with other elements. Therefore, it has to be artificially isolated before being usable as fuel through processes that are quite expensive and energy-consuming.

To conclude, hydrogen fuel cells offer a potentially very clean, energy-dense and easy to recharge energy source for vehicles and other systems, but are currently complicated, expensive and dangerous to operate. In comparison, Lithium-ion batteries, although less energy-dense and slower to recharge, are as clean, much cheaper, easier and safer to handle.. In the future, once the technology is sufficiently developed and the drawbacks mentioned above addressed, hydrogen could be a great solution to increase range and decrease charging time in electric vehicles. But for now, lithium-ion technology is the best solution to offer very practical and high-performance e-bikes and other vehicles



*Pulkit Yadav
1st year*

NURSE: A VARIANT WARRIOR

NURSE: Just another word to describe a person strong enough to tolerate everything and soft enough to understand everything_

Unfortunately, many people seem to think that the most important person in healthcare system are the doctors but this is simply not true. Ever the underdog, nurses play a key role in all of our medical institutions, being responsible for the welfare, safety and recovery of patients. The WHO designated 2020 as "YEAR OF THE NURSE AND MIDWIFE" in recognition of the vital role Nurses and Nurse- Midwives play in providing health care.

Nurses spend years for perfecting and developing the enormous amount of knowledge and diverse skills, all the time working in tough environment where extreme stress is a part of the job. They bring new life into a world, care tirelessly and did everything to save pass away despite their best efforts.

Every year "12 MAY" is recognized as the "INTERNATIONAL NURSE DAY" to acknowledge the hard work, long hours and emotional duress that are part of the life of every nurse. It is a kind of way in which we can pay honor and tribute to all of the nurses around the world and the incredible work they do. This day is also marked as the anniversary of the birth of "Florence Nightingale" who is widely considered as the founder of Modern Nursing.

Wonderful nurses give from the heart, making the world a better place for those whose lives they touch. We together appreciate the efforts and determination of all these workers working in such a rampant situation.



*Khushi Gupta
1st year*

RESEARCH ON DRUGS AND MEDICINES IN INDIA

India was one of the first nations to develop a synthetic drug. In the post-Independence era, Indian pharmaceutical industry developed a strong base for production of generic drugs. Challenges for the future are to give its traditional medicine a strong scientific base and develop research and clinical capability to consistently produce new drugs based on advances in modern biological sciences. Right

Now Thirty-nine laboratories are functioning under the aegis of the council of scientific and industrial Research of India. Ex. CDRI laboratory in Lucknow, Serum institute (recently making Covid-shield vaccine .The research institute was formally inaugurated on 17 February 1951 by PM Jawahar Lal Nehru.

Indian civilization is one of the few in the world that developed a full-fledged system of traditional medicine. The approach of Indian traditional medicine, e.g., the ayurvedic system, is herbal based in general and is more effective for chronic diseases and prevention. Although modern medicine has found its own niche in India, traditional formulations are still widely used, and more and more scientifically validated formulations are appearing in the market. In recent times, many plants used in Indian system of medicine have been analysed by modern analytical methods and active components have been isolated. Significant amount of medicinal chemistry efforts are going on around these molecules in an attempt to develop more potent leads. These include curcumin from turmeric, 1 Bacosidesfrom Brahmi (*Bacopa monnieri*),² and Forskolin from Coleus *Forskohlii*. The first modern synthetic drug to be developed in India was Urea Stibamine in 1922 by UN Brahmachari against visceral leishmaniasis.³ Visceral leishmaniasis was a severe health burden during the early part of the 20th century. Historically, it was the second drug developed against an infectious disease after Salversan (against Syphilis) and well before penicillin or sulfa drugs. It is still in use in many countries in a modified



*Kishan Talpa
1st year*

POSITIVE APPROACH

In the present scenario world is like a boiling cauldron of negative thoughts, depression, stress, anxiety . People are more interested in imagining the situation that is not going to be happened and which is contradictory for others. If we look around us so called society bother us by forcing ourselves to think “What are the people gonna say?” . And most of time we found that they spread negativity and stop us from being ourselves . so to overcome such problems we have to change our approach to positive approach.

Positive thinking, or an optimistic attitude, is the practice of focusing on the good in any given situation. It simply means you approach the good and the bad, in life with the expectation that things will go well.

If a person don't have positive approach in life he will surely lag behind from his goals and face difficulty in archiving success. Which will also impact on his personality and attitude . Therefore to avoid such situation positive approach should be adopted . “ If the life is not going according to us then we need to change our approach ” . Which will build ourselves electrified and enthusiastic from inside. Through it the narrow minded thinking can be upgraded which will automatically leads Earth to be a better place for living.

Hence positive approach plays vital role in one's life and can act as torch of enlightenment for the world. So it will not be out of place if it is said that positive bent of mind not only makes a person happy and satisfied but also change the crafty mindset of people.



*Shashank Sahu
1st year*

NEVER DID WE..

Never did we presume
We would land up this way
The god seems to be disheartened
Or he must be enraged
For the things taken for granted

Never did we perceive
We would wake up as foreigners
On a planet we owned
Little did we realise
How debt ridden we were.

Never did we pay homage
To our warriors working 24x7
Tired of faking smiles
And hankering for going home
Still, need to walk miles to stay afloat.

Never did we endeavour
To question our masters
Of their inadequacies to sustain lives
And nuance measures to their clarion
Before the pandemic caught us off guard.

Never did we wonder
In the new enforced silence
Observe a carrion crow
That can be heard
So beautifully now

Never did we realise
Our lives changing in one stroke
Masks becoming the new normal
Social distancing rules to flout
Struggling lives out of catastrophe.



*Ritul Sharma
1st year*

COLLEGE LIFE BEGAN IN ONLINE MODE

It was 18th Nov 2020 when I first came into the picture of collage life virtually. Like many students in school life I also dreamed to get admission in University of Delhi (North Campus).

"ITS NOT BECAUSE YOU DREAMED IT BECOME REALITY, BECAUSE IT ALREADY IS A REALITY IT'S HAPPENED "

I was trying my level best to understand own self but as a fresher's(1st year students) I can't believed at time that it happened when I got my first online class in collage like Hans raj (Delhi University).

In many ways it's always true with life that reality in your favour happened plenty time but you realise later, But in this time I realise at the time it happened.

Beings a fresher's, A 1st year student me just wanted to go into the collage reality not in virtual mode. But this covid situation bring us as it on place were we are from last 1 and 1/2 year. But for me my first time online teaching experience to getting a online class by DU(Hans raj)" Chemist" profess was as incredible things. We are Not aware that's How it is but getting it on the Experience an online platform is another things that is one suspect

As we know that human mind that we would Like to predict the future of vary world itself. But it always not in your favour.

After a week or 2 week later our society advertisement began But " The Chemical society of Hans raj college" [RASAVANATA] I like the most. At the End of 1st semester this society organised a conference on Bio sensing which is appreciable for the efforts of all seniors is really great which inspire us most.

When I was in 9th standard , my dream was to take admission in University Of Delhi (You can imagine something and you make it a reality today is a big things).

THANK YOU LIFE



*Sudhanshu Kumar
1st year*

RADON- RISK AND PREVENTION

Radon is a colourless, odourless radioactive gas. It comes from the natural decay of uranium or thorium found in nearly all soils. It typically moves up through the ground and into the home through cracks in floors, walls and foundations. Radon breaks down quickly, giving off radioactive particles.

Radon is a major cause of lung cancer. It is estimated that radon causes between 3% to 14% of all lung cancers in a country. Radon is much more likely to cause lung cancer in people who smoke. In fact, smokers are estimated to be 25 times more at risk from radon than non-smokers.

Radon enters buildings through cracks in the floors or at floor-wall junctions, gaps around pipes or cables, small pores in hollow-block walls, cavity walls, or sumps or drains. Radon levels are usually higher in basements, cellars and living spaces in contact with the ground.

Some common ways of reducing radon levels in existing buildings include:

- increasing under-floor ventilation
- installing a radon sump system in the basement or under a solid floor;
- avoiding the passage of radon from the basement into living spaces;
- sealing floors and walls

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*Sagar Dubran
1st year*

POEMS

Dive deep into my eyes
And you'll discover my faith in you
As unflagging as your eyes are now.
How flawlessly they reflect my presence,
How charmingly they cast a spell
That my heart is inexorable to escape.
Quiet, do not utter a word!
Let this tranquility be undisturbed
Festooned with the redolence of love.
Oh, what a journey it is!
And I wanna flow in it,
Rise in it,
Dissolve in it
As long as you are my companion.

They met again in a crowd
Collided so hard that she fell down,
Exchanging apologies from eyes,
He sat on his knees with a heart
As infinite as skies,
They were so close that
He could feel her breath,
Stillness in the air
Came back to life after death,
Pulling herself a little away,
Blushingly she looked down
But could not resist her heart from beating fast that once used to frown.



*Stuti Gupta
1st year*

DARE TO DREAM BIG

I've always been a Dreamer. Infact, there are plenty of dreamers out there. Dreams are not just the events that play in our minds while we sleep. But the passion to a better life of success and abundance. Les Brown once said, I've always been a Dreamer. Infact, there are plenty of dreamers out there. Dreams are not just the events that play in our minds while we sleep. But the passion to a better life of success and abundance. Les Brown once said, "Shoot for the moon. Even if a person misses, he will land among the stars". We may have many dreams even so it's not always that we achieve everything. So, It's necessary to dream big as if we don't achieve a particular thing, we will fall somewhere around that. However, matter of fact is that many of us give up on our dreams. Trap of Comparison, Perfection, Failure compel us to do so. It is often said, "Thoughts are things, what you think, you become". So, Dream big and see those dreams clearly and strongly. Don't allow other people to dispirit you just because of your big dreams. Surroud yourself with people who are like-minded and supportive.

And, We should not forget that all our dreams can come true, if we have the courage to pursue them.



*Yashika
1st year*

उनकी यादों में लिखे कुछ मुक्तक...

1. शीशे के घरों में पत्थरों ने बसने नहीं दिया,
आंधियों ने बादलों को भी कभी बरसने नहीं दिया,
कोशिश तो बहुत की हमनें महफिलों में मुस्कुराने की,
तेरी जफ़ाओं ने हमारी वफ़ाओं को हँसने नहीं दिया॥
2. वीरों का कभी महलों में बसर नहीं होता,
समझदारों पर कभी चाटुकारों का असर नहीं होता,
इश्क वाले तो मिलते हैं जमाने में बहुत,
सच्चे इश्कज़ादे को कभी इश्क मयस्सर नहीं होता॥
3. कहीं पे खो रहे हो तुम, कहीं पे खो रहे हैं हम,
किसी के हो रहे हो तुम, किसी के हो रहे हैं हम,
सहा जाता न दोनों से जुदाई का ये आलम,
इसलिए रो रहे हो तुम, इसलिए रो रहे हैं हम॥
4. तुझे ढूँढा बहुत मैंने पर तुझसे मिल नहीं पाया,
क्यामत आयी ऐसी की जख्म भी सिल नहीं पाया,
जमाने भर में बस मैंने तेरी दीवानगी देखी,
की तू मूरत न हो जिसमें ऐसा दिल नहीं पाया॥
5. जो शाद रहती थी, वो अब ना शाद रहती है,
जला कर मेरे दिल को वो इसमें आबाद रहती है,
न जाने मेरे मन पर उसने क्या जादू है कर डाला,
मैं सब कुछ भूल जाता हूँ, मगर वो याद रहती है॥
6. घर पूस का था मगर हमनें जलने नहीं दिया
तेरे इश्क ने हमें तनहाइयों से निकलने नहीं दिया
तूने वादा किया था रंग लगाने का सबसे पहले
इसलिए गालों पर औरों को गुलाल मलने नहीं दिया॥



कीर्ति कश्यप 'तेजस'
द्वितीय वर्ष

I LOVE YOU

Tonight, again I sleep with you in my heart.
Tonight, I remember the first day of my flirt.
How I chanced and sat with you,
How I unfolded that I love you,
How you got impressed by me,
How love seed grew into a tree.
Days passed by and time flew,
Our love for each other grew.
How your sadness saddened me,
How your talking to else maddened me,
How your thoughts prevent my sleep,
How I rush when the cellphone beep.
There are so many reasons I love you,
But the most important one itself is you.
There is not a day you're not in my mind.
A person like you is difficult to find!
Forever in my heart, is where you'll be.
No one can enter as you have the only key.
Just to keep you, there isn't anything I won't do.
The reason is simple dear, because I love you!



*Kirti Kashyap 'Taijas'
2nd year*

Bidding Adieu...

SLAM BOOK 2021



Ritika

Awesome

- I was so embarrassed when Sonu put an ice cube in my lab coat and I was jumping because it was so cold. The teacher saw me and said is this how you behave in lab. But then she understood something is wrong and asked me if someone put ice cube in your lab coat. I said yes and asked me who did it. I wasn't willing to tell her so she asked me to get out of lab and to never attend any lab thereafter. So I had to tell his name
- I will miss my college life because of my friends. Due to this pandemic we weren't able to spend much time together. Wish we did.
- My first crush in college - No one
- Favourite food at college canteen/mother dairy - I really liked the extra spicy maggi from mother dairy
- Song that suits my life - So am I by Ava Max

My Hansraj life in one word



Serendipitous

My Hansraj life in one word



Yamini Nirwan

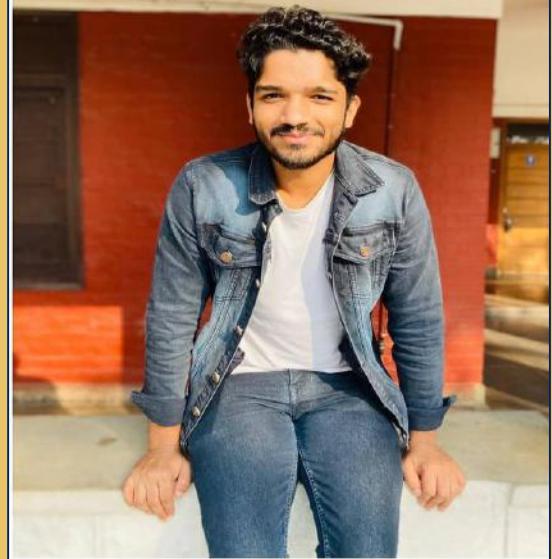
- I was so embarrassed when Physical Chemistry teacher asked me to move out of Lab
- I will miss my college life because half of the college life was so memorable, what if whole of it, would have been, I will miss those 1.5 years
- My first crush in college - Harsh in German Class
- Favourite food at college canteen/mother dairy - Chilli potatoes
- Song that suits my life - This feeling

Sagar Pal

- I was so embarrassed when - I don't remember any
- I will miss my college life because I'll miss shampa ma'am 😢
- My first crush in college was - No one
- Favourite food at college canteen/mother dairy - Free ka
- Song that suits my life - Intkaam dekhegi

Short

My Hansraj life in one word

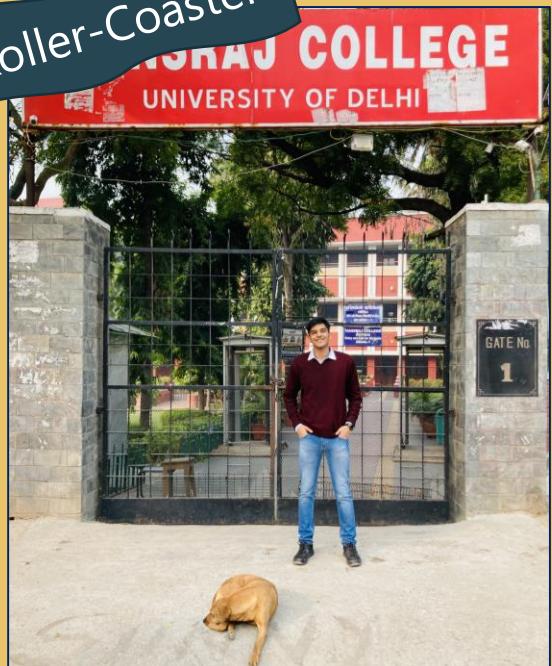


Sarthak Kaushik

- I was so embarrassed when Jyoti ma'am asked me "Tum isi class ke ho" at the end of first semester and now she is like "ye dusht to isi class ka hai"
- I will miss my college life because it has been a rollercoaster ride for me where I have had my share of ups and downs. From making friends from varying classes and courses to making those 4 hour labs feel like home, it now feels like indeed we have come a long way together. Even on casual days when we cherished those little things like celebrating birthdays together to playing badminton and basketball matches, I will miss all those little even the insignificant things that made college what it is (even the fact that I would no longer be doing silly things and get scolded by Shampa ma'am). And not to forget how much I will miss saying " 308 PRESENT MA'AM".
- My first crush in college - Mai "Sharma" gaya.
- Favourite food at college canteen/mother dairy - Maggie and Dosa
- Song that suits my life - Banke museebat Peechhe padi hai Yeh comedy hai Ya tragedy hai Na hona tha kyun ho gaya...Locha-E-Ulfat ho gaya, Locha-E-Ulfat ho gaya

Roller-Coaster

My Hansraj life in one word



Rohit

Amazing

- I was so embarrassed when me and my friends were playing pubg outside badminton hall and were shouting loud.. then our Principal Rama mam passes by and scold us 😱.... hopefully she didn't ask for the names and course 😱
- I will miss my college life because of my friends
- My first crush in college - Shhhh 😱 😱 😱 Shama (super senior)
- Favourite food at college canteen/mother dairy - Chowmein
- Song that suits my life - No idea 😱

My Hansraj life in one word



Nurturing

My Hansraj life in one word



Ayush Rana

- I was so embarrassed when
- I will miss my college life because that phase was a lot better than this virtual one.
- My first crush in college - Hahaa lol:-)
- Favourite food at college canteen/mother dairy - chowmein
- Song that suits my life -kal ho naa ho

Anjali Malik

- I was so embarrassed when a friend of mine from kmc tried to make my entry in his college without the icard .. But the guard refused 😱
- I will miss my college life because it will never come back again
- My first crush in college - There is no crush as such but I really liked my ge teacher in sem 1 Mr rakesh meena he was very sweet
- Favourite food at college canteen/mother dairy - Samosa always ❤️
- Song that suits my life - Ye ladki pagal hai ... 🤪 🤪

Memorable



My Hansraj life in one word

Akash Attrı

- I was so embarrassed when i used to stand at front shelf of lab during practical exam
- I will miss my college life because i will never experience such ambience anywhere else.
- My first crush in college - 南希
- Favourite food at college canteen/mother - dairy fried rice/ lassi
- Song that suits my life - mann bharrya

Amazing



My Hansraj life in one word

Firdoud Ahmad

- I was so embarrassed - Every time when I was late for chetna mam's class in 1st sem.
- I will miss my college life because I don't get to live it.
- My first crush in college - N/A
- Favourite food at college canteen/mother dairy - Chhole bhature
- Song that suits my life - De mauka zindagi (aspirants)

Life-changing

My Hansraj life in one word



Memories

My Hansraj life in one word



Roshani

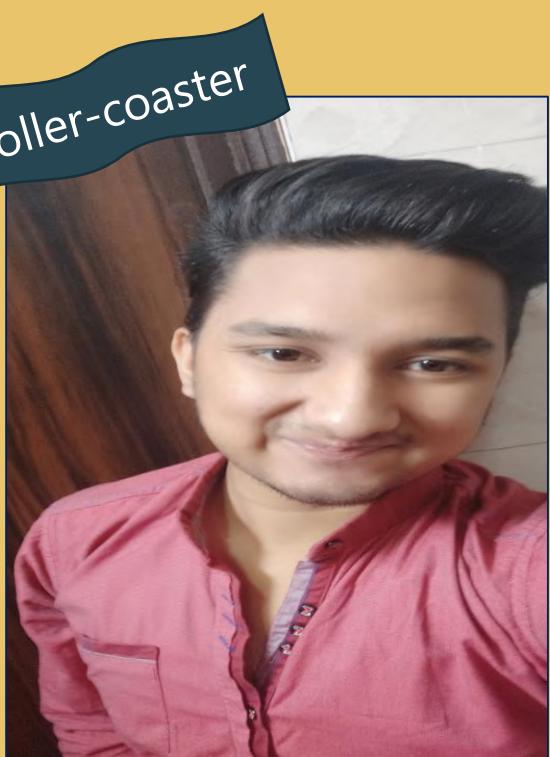
- I was so embarrassed when I was scolded in lab in second semester in front of my classmates
- I will miss my college life because of time which I had spent in college is full of ups and downs and in anyway I have learnt many things. My way of thinking towards life has changed and definitely I will miss my friends, roaming around campus areas, all respected teachers, those lengthy labs and yeah those fest days, Diwali Mela, Kamla market and many more things that will always be in my heart always.
- My first crush in college - Nope
- Favourite food at college canteen/mother dairy - Grilled sandwich 🥪
- Song that suits my life - I don't wanna waste what's left

Ankit Kumar

- I was so embarrassed when I shared my heart feeling with someone with a mathematics formula $A=B=C$ and she don't understand that 😂
- I will miss my college life because I am a foodie so basically I will miss all the food stuffs we get at and near college campus
Like Chachhe de Hatti chole bhature, Dolma Aunty momos, Chaurangee Rolls KFC
- My first crush in college - Sana arora , I have a huge crush on her voice I get to know about her from my roomie
- Favourite food at college canteen/mother - I love the lassi from mother dairy it gives a lot of freshness after the regular hectic chemistry labs
- Song that suits my life - Memories from Maroon 5

Roller-coaster

My Hansraj life in one word

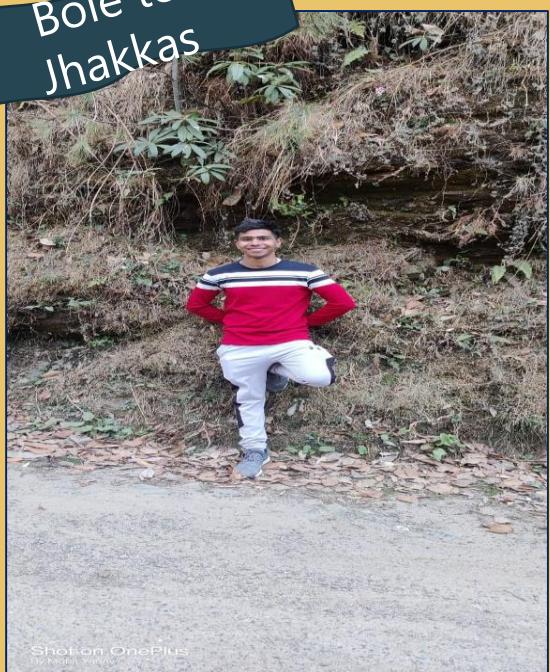


Himanshu Yadav

- I was so embarrassed when nobody informed me about mass bunk and attended the lab
- I will miss my college life because of the Physical Department's Faculty and the time i spend with NSS fam as a coordinator in 2nd year.
- My first crush in college - Tha hi nhi koi aisa 😂
- Favourite food at college canteen/mother dairy - Paneer patty + Maggie
- Song that suits my life - Dance Monkey

Bole to Jhakkas

My Hansraj life in one word



Shot on OnePlus
by Mitali Sarawat

Anirban Phukan

Memorable

- I was so embarrassed when - you asked. Because I embarrass myself everyday XD
- I will miss my college life because life won't be as chill anymore. Won't have this bunch of friends to have fun with. I will definitely miss the fest hopping, Delhi bhraman, yulu rides, long labs and the various trips we had together.
- My first crush in college - Diksha B. Par tumko kya itni panchat hai bhai!!!
- Favourite food at college canteen/mother dairy - Honey Chilli potato, egg chowmein & maggi+lays combo
- Song that suits my life - None that I can think of. But Yaariyan from Cocktail describes my feelings atm

Amazing,
Enlightening

My Hansraj life in one word



My Hansraj life in one word



Anjali

- I was so embarrassed when one day I paid 224rs.as fine for library book actually I forgot to return it and accidentally it's front page with all the details tore off 😱 and everyone on the library window looked at me weirdly because they paid 4rs.2rs.,6rs. And I paid 224 rs. itne Mai to book hi AA jati new 😱
- I will miss my college life because I got some lovely people in my class. everyday with them is so special. i will miss my friends, those hectic labs, bunks we did, birthday parties we did, nervousness before presentation, fear of exams internals and especially I will miss the beautiful bond with my friends that we made
- My first crush in college - No one
- Favourite food at college canteen/mother dairy - Canteen- patties, pavbhaji, chowmeen, mother dairy- Meggie ,lassi
- Song that suits my life - Aashiyan(Itni si hasi ,itni si khushi ,itna SA tukda Chand Ka sapno m tinko se CHal bnaye aashiyan

Prateek Jain

- I was so embarrassed when - There were many moments but I was most embarrassed when I waved back to a person who actually was waving to the person behind me ^^"
- I will miss my college life because of that small gang of mine as they were the reason why I used to go college daily <3
- My first crush in college - Sshhhh!!! Top Secret :-\$
- Favourite food at college canteen/mother dairy - Chocostick of Mother Dairy
- Song that suits my life - "Kholo Kholo" 9.

Friendship
and MS Teams

My Hansraj life in one word



Deepika Gupta

- I was so embarrassed when I got kicked out from library.
- I will miss my college life because of my friend and B4
- My first crush in college - I know his face but I don't know his name.
- Favourite food at college canteen/mother dairy - Dosa and yoghurt
- Song that suits my life - The way I am

Joyful

My Hansraj life in one word



Sonali Garg

- I was so embarrassed when - Can't remember 😊
- I will miss my college life because of fun in having the stress for labs and enjoyment during fest with friends
- My first crush in college - Sadly , no one 😞
- Favourite food at college canteen/mother dairy - Mother dairy Maggie and grilled Sandwich 😊
- Song that suits my life - Dil chahta h

Beautiful

My Hansraj life in one word



Wonderful

My Hansraj life in one word



Amisha Bansal

- I was so embarrassed when I was scolded for using phone in lab
- I will miss my college life because it was the most beautiful time period of my life. Made new friends and enjoyed every moment.
- My first crush in college - No one
- Favourite food at college canteen/mother dairy - Sambhar dosa
- Song that suits my life - Yaar jigree kasooti degree

Ashish Goyal

- I was so embarrassed when I spoke cuss word in AECC class.
- I will miss my college life because life will no longer be same. There will be no enthusiasm of LP, lab file complete karne ka pressure nhi hoga, library ke AC yaad aayenge. C-block ki stairs per baithkar ground mein dekhna, class bunk karke canteen mein baithana miss karenge. Mother dairy ki maggie and yagyashala mein NSS ki yaad aayegi. Department mein shampa Ma'am 😊 ki daant aur chetna ma'am ki guidance yaad aayegi.
- My first crush in college - Nikki Mittal who was in 2nd year then.
- Favourite food at college canteen/mother dairy - Masala dosa 😊
- Song that suits my life - Give me some sunshine 😊

Oscillated



My Hansraj life in one word

Yukta Singh

- I was so embarrassed when - I don't remember, honestly.
- I will miss my college life because It made me a new and better version of myself and I made some really awesome friends here ;)
- My first crush in college - No one.
- Favourite food at college canteen/mother dairy - Chilled lassi and Grilled sandwich from Mother Dairy
- Song that suits my life - Dynamite- BTS

Magnificent



My Hansraj life in one word

Prashant Rajput

- I was so embarrassed when I saw that most of the students are so self-confident and speaking English in flow but I was so shy that time that's why couldn't manage things but it's ok
- I will miss my college life because this may be the last time that we all were happy together after that life is so complicated that bachpana wala moment will be lost somewhere after graduation and as a person no-one wants to loose this one. Looks like our duration of graduation was just 1½ year. Will literally miss that Sukoon
- My first crush in college - Most of the girls because I had not seen this type of environment before but that was nothing.
- Favourite food at college canteen/mother -dairy Patties
- Song that suits my life - Many songs are my favorite but " Tumko Dekha To Yeh Khyal Aaya " is very special

Exuberant

My Hansraj life in one word



Personality

My Hansraj life in one word



Vasu Mittal

- I was so embarrassed when - Thankfully escaped from this one ;)
- I will miss my college life because 1) Now, I won't be able to fill the monotonous class lecture with the colours of humour ;D 2)I won't be able to sip tea with professors in ongoing lab :))
- My first crush in college - Rohit (lab assistant). Crush? Nah! He was love (:P) He helped me in maintaining zero fine 😊
- Favourite food at college canteen/mother dairy - Mother dairy wale bhaiya apni pyaari voice se jo dede wohi fav food tha humara
- Song that suits my life - Saki saki



Meenakshi

- I was so embarrassed when Mahendra sir scolded me for not behaving properly in the class.
- I will miss my college life because of each and every moment that I have spent there.
- My first crush in college - nobody
- Favourite food at college canteen/mother dairy - Chowmein
- Song that suits my life - Dil k armaan aasoon mein beh gye

Memorable

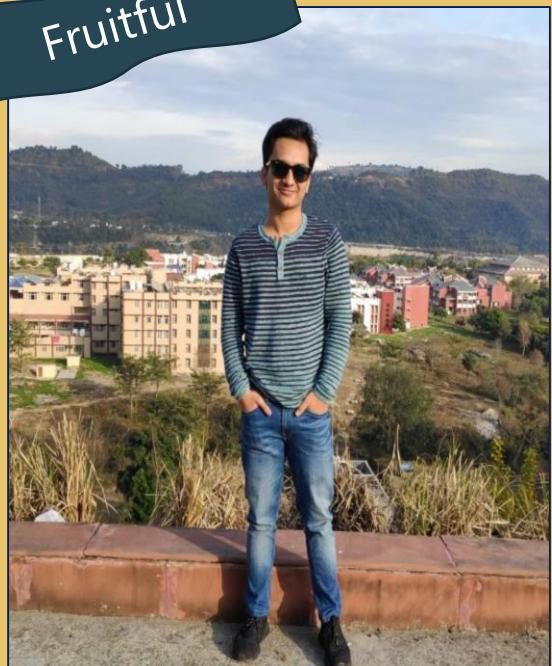


My Hansraj life in one word

Abhishek Saini

- I was so embarrassed when my friend (he is not anymore) cursed me twice in front of the entire class and the teacher during a class activity.
- I will miss my college life because it has changed me in so many ways, and I am proud of the person I have become. I'll always remember how I used to entertain my friends with my long hair. I'll remember the idea of mass bunk and the aftermath that followed it; my sarcastic comments and the laughter that followed them; all the fests and the afterparties that followed them; all the beautiful experiences and the memories that followed them. I got to experience only half of it (in-person), but it feels like a lifetime.
- My first crush in college - Selena won't allow me to have one.
- Favourite food at college canteen/mother dairy - Grilled Paneer Sandwich
- Song that suits my life - I'll Be There for You

Fruitful



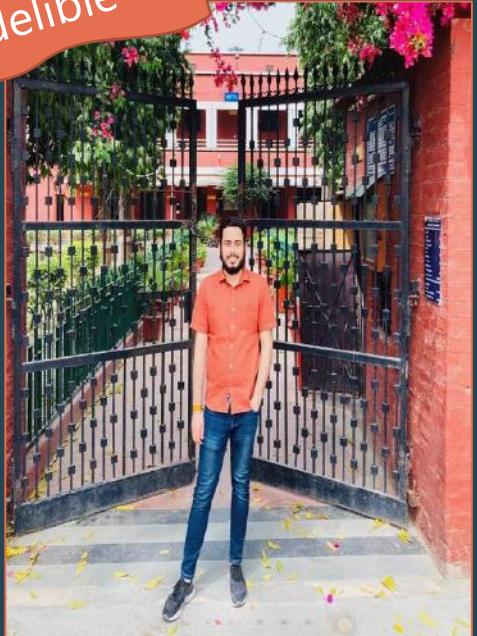
My Hansraj life in one word

Karan Asnani

- I was so embarrassed when - Aisa kuch bhi hota h kya .!!
- I will miss my college life because there is a time and place for everything and that is a college .
- My first crush in college - Batau kya....kya kroge janke chalo bta hi deta huiska nam suna hai..
- Favourite food at college canteen/mother dairy - Fried rice
- Song that suits my life - Zindagi kaisi hai Paheli

Indelible

My Hansraj life in one word



Amazing

My Hansraj life in one word



Rishika

- I was so embarrassed when I was pointed out for the first time in the class by jyoti ma'am and was asked to prepare a topic to present in the class as a punishment of having K.L kapoor opened on my bench during the class.Lol
- I will miss my college life because It was a great exposure for me as a village girl. Got nice friends here. Lab bunks. groumd me dumb charades khelna and lot more things 😊
- My first crush in college - Pehla yaad nhi 😊
- Favourite food at college canteen/mother dairy - Masala dosa
- Song that suits my life - Haste haste kat jaae raste jindgi yahi chlti rhe khushi mile.ya gam badlenga na hum duniya chahe badalti rhe

Ishika Dhanwani

- I was so embarrassed when on the first day of college we were asked to get locks for our lockers, i thought we had to get locks from the administration and we went into the offices to ask for locks for the whole lab literally and they were shocked and called chetna ma'am. Then we realised we had to purchase locks.
- I will miss my college life because It never got complete :')
- My first crush in college - Na ham jane na tum
- Favourite food at college canteen/mother dairy - Maggi
- Song that suits my life - Zindagi ek safar hai suhana

Khatti-meethi

My Hansraj life in one word

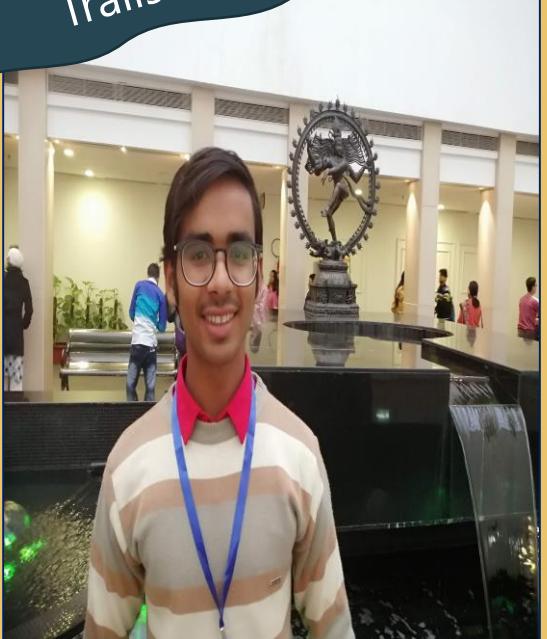


Abhishek Kumar

- I was so embarrassed when - Never
- I will miss my college life because of our very own adda.. where I used to spend most of the pastime in college.
- My first crush in college - A girl in Botany department.
- Favourite food at college canteen/mother dairy - eggcurry rice (just once) wrna to canteen food kisi ki favorite list m nhi hota.
- Song that suits my life - Malang

Trails

My Hansraj life in one word



Mohammad Roshan

Roller-coaster

- I was so embarrassed when I attended first class of Shampa mam after missing out 1 month of early classes.
- I will miss my college life because of its variations; having Everyday different from the previous one.
- My first crush in college - UNKNOWN; Crush thi, love nahi ki naam ata-pata sab jaanloon.
- Favourite food at college canteen/mother dairy - Egg curry- Rice (Liked it just once), or else college canteen is just life-saver.
- Song that suits my life - Yahan bhi hoga, wahan bhi hoga, abto saare jahan me hoga kya? Mera hi Jalwa Jalwa.

My Hansraj life in one word



Amazing

My Hansraj life in one word



Priya Raj

- I was so embarrassed when I got scolded in lab by Shampa maa'm due to my preplanned stuff with sonu and it seemed like everyone in the lab knew about it but I predented as I was innocent.
- I will miss my college life because Masti...frndz time....long labs...bunking classes...B4 lectures....canteen parties...travelling
- My first crush in college - Mr.Smartly
- Favourite food at college canteen/mother dairy Rajma chawal
- Song that suits my life - Gilheriyan

Sonu

- I was so embarrassed when i gave my first presentation and got scolded by sunita ma'am instead of appreciation.
- I will miss my college life because of Friends, B4, lab masti, canteen, bday parties, sports complex, ground, campus, audi, bunking classes, college pets in other words everything.
- My first crush in college - nobody
- Favourite food at college canteen/mother dairy - aloo paratha
- Song that suits my life - de mouka zindagi from aspirants

Best

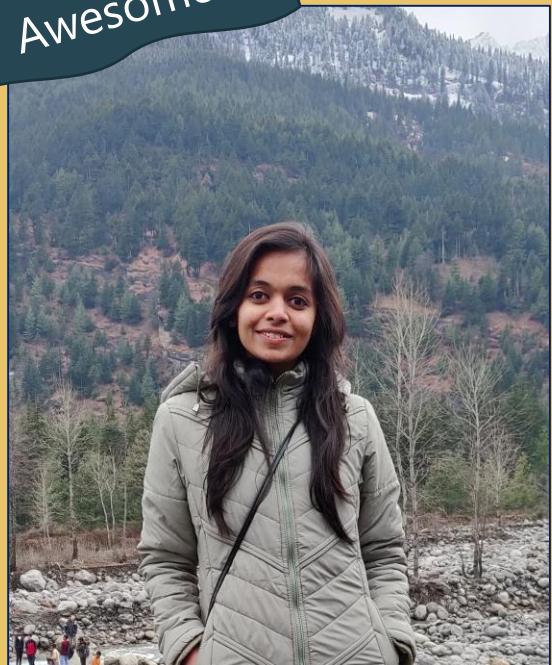


My Hansraj life in one word

Shipra Chauhan

- I was so embarrassed when a teacher caught me marking proxy during attendance.
- I will miss my college life because of the memories this batch of 2021 has given me, that are far more precious than reality. For me it was a chill place to walk in and walk out anytime. Those were simply the best days spent with the best people. B-)
- My first crush in college - Nobody
- Favourite food at college canteen/mother dairy Mother dairy's maggie
- Song that suits my life - I really don't know

Awesome



My Hansraj life in one word

Namrata

- I was so embarrassed when my phone rang twice and Indrani ma'am told me to get out of the class.
- I will miss my college life because I didn't get to live it.
- My first crush in college - I don't know, i just saw that person once at the lp.
- Favourite food at college canteen/mother dairy - Chowmein
- Song that suits my life - She by Selena Gomez

Growth

My Hansraj life in one word



Awesome

My Hansraj life in one word



Salam Chandrajit

- I was so embarrassed when Renu ma'am shouted at me in lab 5
- I will miss my college life because It was lovely journey
- My first crush in college - No one
- Favourite food at college canteen/mother dairy - Egg chowmein
- Song that suits my life - A Manipuri song

Diksha Rana

- I was so embarrassed when I tried to write about the time when I was so embarrassed that i just couldn't
- I will miss my college life because I don't see myself getting into any further colleges now!
- My first crush in college - Really Really nobody
- Favourite food at college canteen/mother dairy - Everything that somebody else would buy and offer
- Song that suits my life - Shut up and Dance by WALK THE MOON

Memorable

My Hansraj life in one word



Nishita Bharadwaj

- I was so embarrassed when- Its not that embarrassing but I am not able to think of any other 🤦. It was embarrassing when some of teachers used to call me "Nishtha" instead of Nishita during the attendance.
- I will miss my college life because of the dynamical experience I had. Be it attending classes, fests, society practices to exploring delhi and travelling in metro, all of this has become a part of me now and letting this go will be the hardest part.
- My first crush in college - "Wish I could, but I can't. Well can, but won't. Should maybe, but shorn't. What part of shorn't don't you understand, guys?"
- Favourite food at college canteen/mother dairy - Without a doubt mother dairy's maggi ❤️
- Song that suits my life - Yahi chala chal raahi

Blissful

My Hansraj life in one word



Mansi

- I was so embarrassed when we used to study in library and everytime library staff used to throw us out . (kyoki pdhai kam baate jyada)
- I will miss my college life because of how attached I became to that life which had my friends, the college dogs, the canteen's food which used to make me come to college every single day (and yea classes too :P) . This is something which will stay with me forever 🌸
- My first crush in college - Umang T. ❤️ Bss itna kafi h baki Panchayat karne ki aadat nehi gayi tum logo ki. 😊
- Favourite food at college canteen/mother dairy - Maggi ofcourse , baaki koi party de to sabb 😊
- Song that suits my life - Koi kahe kehta rhe ,kitna bhi humko deewana 🎵

Memorable

My Hansraj life in one word



Warm

My Hansraj life in one word



Tushar Sharma Banstola

- I was so embarrassed when - Never
- I will miss my college life because of the wonderful place and people.
- My first crush in college - Can't disclose
- Favourite food at college canteen/mother dairy - Maggie ofc
- Song that suits my life - Fireflies- Owl City

Shruti Jain

- I was so embarrassed when - So many times, its even hard to keep track now.
- I will miss my college life because it has been my place to overthink and enjoy at the same time from the past three years. Plus mostly since I am going to miss working with my kalakriti fam.
- My first crush in college - Kya kroge jaanke, maine kaunsa kuch krliya jante hue bhi.
- Favourite food at college canteen/mother dairy - Maggi + cold coffee be the best combo
- Song that suits my life - Night changes by one direction

Overwhelming

My Hansraj life in one word



Pankaj Sangwan

- I was so embarrassed when - Too many to count
- I will miss my college life because of friends and memories I made
- My first crush in college - Mansi
- Favourite food at college canteen/mother dairy - Chowmein
- Song that suits my life - Everything at once by Lenka

Safar

My Hansraj life in one word



Ankush Paul

Bestseller-
Non fiction

My Hansraj life in one word



- I was so embarrassed when I had put up a sample message jokingly to everyone asking them to bring something from home after Diwali and literally everyone brought sweets even my lovely juniors and all of them calling to tell " ki bhaiya apne bola tha toh we have brought sweets for you ". Everyone was then asking me ki Ankush what have you told everyone 😂👤 ki tujhe itne sweets milre hai. Even tho it was really sweet I was embarrassed a bit because I didn't know the response would be so much. Love you all 😊❤️
- I will miss my college life because of all the people I have met here , boundaries I have crossed to learn something new and meet more people ,who have made me a better person or have left teaching me something important about life. Dr. Chetna Gupta and the entire inorganic department who have not only been kind but have mentored and motivated me in difficult times I have gone through. All the memories that have happened with these people I have met in Hansraj will always be a special part whenever I recall this journey ahead.
- My first crush in college - In " witness " of Bhagwan ji , esey Question mat pucha karo 😁 - After 3 years, it's difficult to tell your good friends ki you were my first crush. Excuse me 😬
- Favourite food at college canteen/mother dairy - Trademark wali spice maggi + stick + coffee of Mother Dairy >>> anything else available in the entire college. Not been a great fan of canteen food but canteen wale bhaiyas were love , all of them. The moment we used to enter they used to recognise us and ask aj kya Khana hai and we used to fiddle around for half hour doing random convos - all of it is too memorable. Mother Dairy is also special for all the thoughtful conversation that have happened there , the warm winter hugs , goodbyes and important short notice dost_ka_problem_hai_solve_karte_hai meetings. Last but not the least only safe place to reduce your guilt after you have bunked your class and labs 😂 were canteen and mother dairy. Not to forget how fest days were spent in and around here only ❤️
- Song that suits my life - There are lot of them , here are best five that suit ,if you know you would , these bring out how it has panned and things may be I have always wanted to say 1. You and Me , James TW 2. Tum Se Hi , Mohit Chauhan 3. In Dino , Pritam 4. Photograph , Ed Sheeran 5. Saware , Arijit Singh

SNAPSHTOS

BATCH OF 2021



SNAPS SHOTS

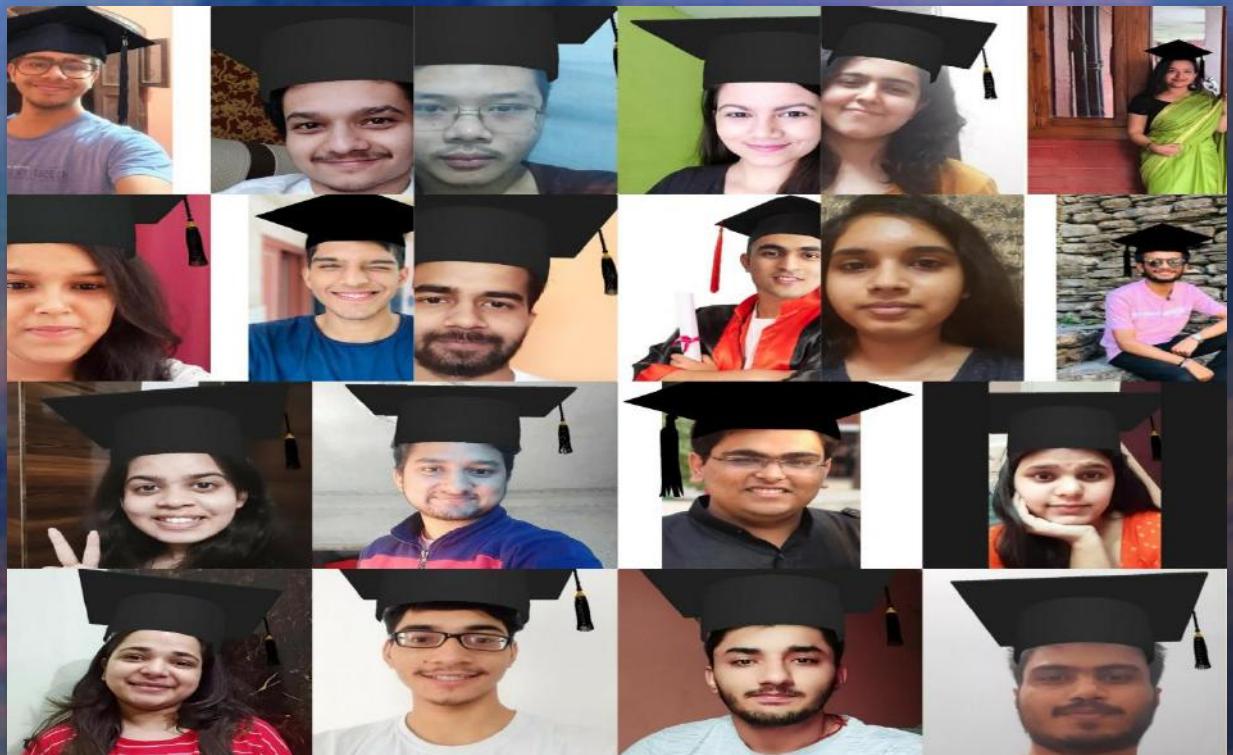
BATCH OF 2021



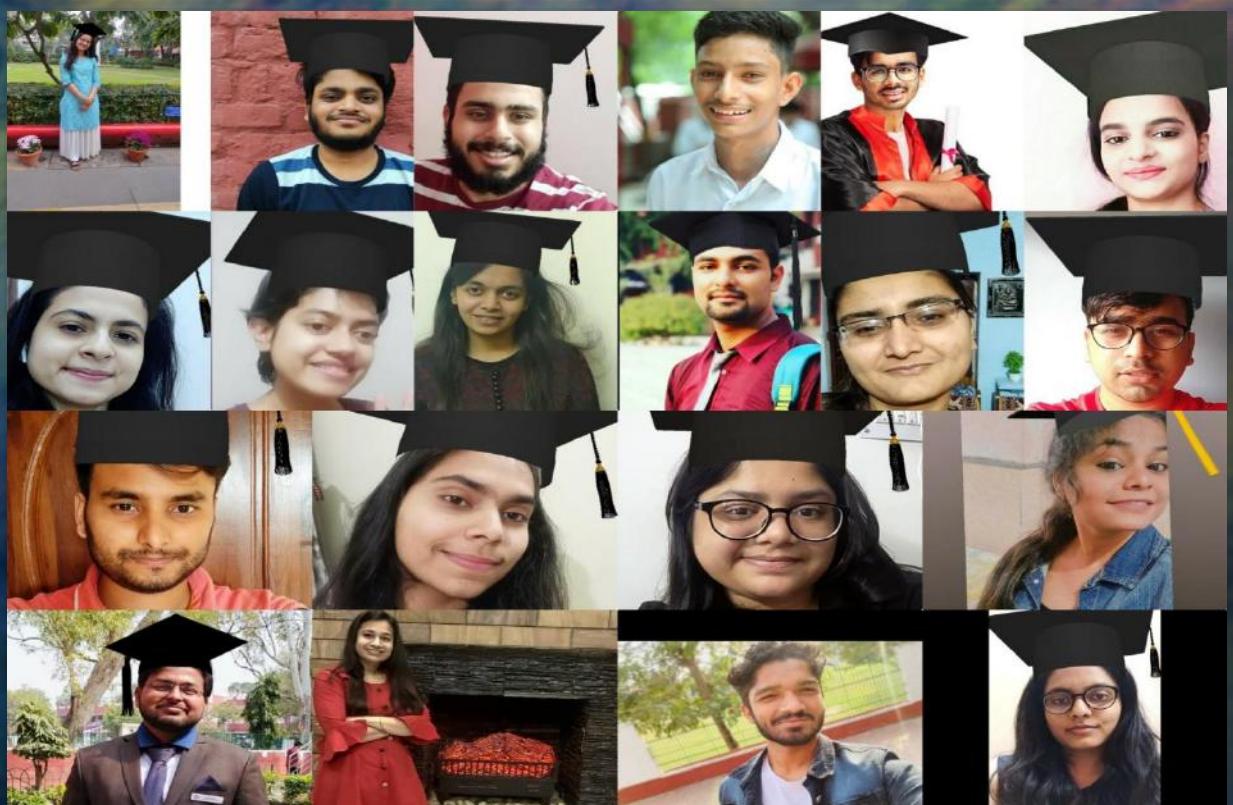
SNAPSHTOS

BATCH OF 2021





"BATCH OF 2021"



EPILOGUE

To compile this whole unusual year in the form of magazine could not be more difficult. Bidding the senior with a virtual farewell, the junior batch welcomed by virtual freshers' party, class blackboards replaced by laptop screens, screenshots replacing the camera roll pictures, internet access and connection as the new elements of worry, zoom meetings, MS Teams, pdfs of books being shared in the class WhatsApp groups, and many unpredictable happenings, this session of 2020-21 made us witness it all. We as juniors are very grateful to the seniors, the versatile batch of 2021, for always lending their hands at the time of need and setting the bar of accomplishments so high. It has always been a moment of pride to see many of you in the lead role of societies and delivering excellent results in academics.

It was a rush of diverse range of emotions while looking at your photographs. The warmest of smiles and hugs. Few months were they, but the time we got to spend together is memorable and you all will always be in our hearts. We tried our level best to bring your whole journey at Department of Chemistry in Hansraj College in a nutshell through this magazine. We really wish the best for all of you.

Goodbye!