

# 2Q18 Quantum

Department of Mathematics  
Lady Shri Ram College for Women

Union Interview

Department Events

Enigma 2018

Articles

Counsel from the Seniors

## UNION INTERVIEW



**KANAK LATA TRIPATHI**  
PRESIDENT

**Question:** What has been the most challenging part of your journey as president of the union?

**Answer:** The most challenging part not just for me but also for my fellow union members has been 'getting approvals'. As a union, we tried to introduce quite a few new events and ideas in the department this year. Consequently, we faced a lot of skepticism as we tried to put across our ideas and vision which sounded rather alien to most of the people. That sense of doubt is what we found somewhat hampering at times. Nonetheless, everyone overcame the initial uncertainty post the events and fortunately appreciated our efforts.

The fact that the three of us put our personal differences aside and stood together as unit is what kept us going.

**Question:** What is your message for the incoming union?

**Answer:** The prestigious position of a member of the union brings along with it great responsibility for the administration of the department for an entire year. I advise the incoming union to be strong and fearless.

Take risks and do not be skeptical of experimenting. Even though people might doubt your vision at first, do not lose hope. Try to put across your ideas with more clarity, try to convince people and most importantly, have faith in yourselves and in your vision.

Always remember that you are the 'students' union' by the virtue of which your priority should always be the student body and their demands and concerns.

Fortunately, we have a very supportive faculty and in particular a very supportive association that will always encourage you to explore your full potential.

Another thing, I cannot emphasize enough on the importance of having unity within the union. It is imperative that all three members stand by each other under any circumstances.

Lastly, this journey is truly a learning experience. Make use of every opportunity that comes your way and value every day that gives you the privilege of being a union member. All the best!



**SOUMYA SINGH**  
GENERAL SECRETARY

**Question:** What did you expect from being a part of the union, and do you see your vision fulfilled as you're signing off?

**Answer:** Being an elected representative of the student body, I always expected to live up to their beliefs to make this year a fruitful and holistic one. We experimented with ideas and events all through the year to break the monotony of math (as people often call it) and make them fall in love with numbers. Nonetheless, appreciation and participation from people who have feared numbers all their lives felt like I could somewhere reach close to my vision. As I sign off, I would thank my amazing co-union members and an utmost supportive association who have made this year a memorable one for me.

**Question:** What, do you feel was the best part of your experience as a union member?

**Answer:** The best part of my experience was the immense satisfaction that I received after successful completion of every event (and now, the tenure). I have learnt so much in this year, from working our way through disagreements and disapprovals as a team to all the administrative and monetary (accounts) constraints. However, one among so many things that I will miss would be our Mini dates over ice tea and Shahi Paneer Naan.



**VRINDA KHERA**  
TREASURER

**Question:** What are your takeaways from your experience as a union member?

**Answer:** The department union was a very challenging yet memorable experience for me. All three of us have very different personalities and thought processes and would end up having clashing views a number of times but were yet able to come to common grounds. My biggest takeaway from the Mathematics Union 2017-18 would be to "Agree to Disagree" (as Kanak puts it). It was actually an achievement when all three of us agreed on something without much deliberation.

Now that I'm at the very end of my tenure, there are a number of things that I would miss, be it staying in college till 5PM figuring out events, or the chats over Maggie and iced tea. Be it the appraisals from Yograj Sir on very small successful event or the privileges (read: free food) that come with being a part of the Union, each part shall be cherished for life.

**Question:** The journey must have been very demanding. What kept you going?

**Answer:** The journey was truly demanding. There were times when I just wanted to get rid of all the responsibilities and run to a place where my phone would be unreachable. There were three things that kept me going- the fact that I was elected by the Students of the department and owed them an enriching year in return, the sheer love and support of my co-union members (I remember how I couldn't be there for major part of ADPP and they did not crib a bit about it), and lastly the immense faith that the association showed by always being a call away for any work.



The TIC Sucheta ma'am, The association in charges Yograj Sir and Kuldeep sir along with the union.

## EDITORIAL BOARD

Greetings from the Editorial Board of Quantum 2018. We would firstly like to thank the department for giving us this opportunity to work on the newsletter. This year, we have tried to take mathematics beyond the classroom walls and explore the multi-dimensional world of numbers. We hope that the newsletter truly represents the spirit of the mathematics department and that we have been able to live up to the expectations of the department.

We would like to extend our heartfelt gratitude to Yograj sir who guided us at every step of materializing the newsletter.

We would also like to thank everyone who sent in their entries for the newsletter and encouraged us to push the boundaries and take the newsletter to greater heights.

Best,  
Editorial Board,  
Quantum 2018



Rajlaxmi Adwant  
1<sup>st</sup> Year



Navya Vardhan  
2<sup>nd</sup> Year



Kanak Lata  
Tripathi  
3<sup>rd</sup> Year



Anusha Ponia  
2<sup>nd</sup> Year



The Principal, Dr. Suman Sharma with the organizing committee of Enigma 2018



The faculty along with the panelists of the panel discussion

# DEPARTMENT EVENTS

## LATEX WORKSHOP

The editorial board of the department journal Eclat organised a workshop on the basics of LaTeX for the first year students which was especially helpful for those who consequently submitted research papers to the journal. Team Eclat consists of Nikita Sobti and Aakshi Malasi from 3rd Year and Namrata Lathi and Kushagri Tandon from 2nd Year.

**Navya Vardhan**  
2<sup>nd</sup> Year

## COLLABORATION WITH PLACEMENT CELL

The Department of Mathematics in collaboration with the placement cell organized an interactive session with the third year students placed at companies like Bain, Macquarie and so on to guide the students with the placement process. The session entailed an in-depth discussion on preparation of the CV, guesstimates and case studies, the HR interview and other important aspects of the placement process. The session was successfully conducted by Arundhati Srivastava( United Airlines), Rishika Kumar(Bain),Apurva Sinha(Siam Makro), Sanya Rastogi(AIG) and Jasmeet Ranhotra( Macquarie) .In the end, the seniors addressed the queries that the students had regarding the preparation for the placements.

**Kanak Lata Tripathi**  
3<sup>rd</sup> Year

## CRYPTOGRAPHY TALK

On 22nd September, 2017, a talk on cryptography was organized by the Department of Mathematics, Lady Shri Ram College for Women. The lecture was delivered by an LSR Mathematics Department alumna, Ms. Sruthi Sekar, who is currently pursuing her Ph.D. at the Indian Institute of Science Bengaluru. The talk aimed at demonstrating the use of mathematics in real life in the field of cryptography.

The talk largely covered the meaning of cryptography, and how its techniques are deeply set in mathematical concepts like Group Theory and probability. The talk began with the process of encryption and decryption of messages through an interesting cartoon. It deal with both the Modern as well as Classical approaches for secure message transmission. The talk also entailed the RSA encryption that is widely used today. Ms. Sekar was successfully able to engage the students by presenting a number of fun facts and interesting takes on cryptography.

Before the event was concluded, the students asked Ms. Sekar various questions, not just on cryptography, but also on pursuing higher education in Mathematics.

All in all, the talk was not only highly informative, but also a fun experience for teachers and students alike.

**Rajlaxmi Adwant**  
1<sup>st</sup> Year



**SPSS Workshop**

## INTEGRATION IS OLD SCHOOL

"There is beauty in the old but magnificence and excellence in the evolved."

On January 5th, 2018, Dr.Dootika Vats, an alumna of the Department of Mathematics, LSR brought to our classroom an evolution, a method to substitute one of the most important concepts of Mathematics, Integration.

"Integration is old school" is what she believes in and set out to prove. Dr. Vats talked about the Monte Carlo Markov Chain which works on a probabilistic approach and can be used in place of integration for complex functions. Although the topic finds its base in statistics, the applications extend to real world in creating models to imitate physical phenomenon like the human brain, artificial intelligence, etc.

Dr. Vats ended with opening the floor to questions from the students. We thank Dr.Dootika for taking out time for us. The talk was truly enlightening and informative.

**Mugdha Khandelwal**  
2<sup>nd</sup> Year

## FINANCIAL MATHEMATICS TALK

To give us an insight into the world of finance, the Department organized a guest lecture on 'Cluster Analysis of Stocks using Price Movements of high frequency data from National Stock Exchange', by Dr. Charu Sharma, Department of Mathematics, Shiv Nadar University.

Dr. Sharma first introduced the concept of shares, bonds and debentures of different companies besides discussing about the behaviour of banks and how different banks would behave under varied market conditions. The session also provided students with the knowledge of risks and benefits involved in mutual fund investments.

For students who had never ventured in the field of finance, this lecture by Dr. Sharma was truly enriching and we thank her for sparing her valuable time and encouraging us with her inspiring session.

**Debomita Kundu**  
1<sup>st</sup> Year

## PHOTOSHOP WORKSHOP

The Mathematics Department organised a workshop on the 'Basics of Photoshop' on 24<sup>th</sup> August, 2017. The workshop was conducted very articulately by Ms. Anusha Ponia, second year, who comprehensively educated the students on the use of the software. Photoshop is the predominant photo editing and manipulation software. It ranges from full featured editing of large batches of photos to creating intricate digital paintings and drawings.

The workshop began with the introduction of Photoshop and then the students were taught to edit pictures and make posters. The workshop received positive reviews and the students awaited more workshops of the sort. The aim to equip students with the knowledge of Photoshop was thus successfully achieved.

**Anju Yadav**  
2<sup>nd</sup> Year



**Cryptography Talk**



**Photoshop Workshop**

## TEACHERS' DAY

September brought excitement regarding the preparation for Teachers' Day. It was an honour for us to be able to do something for our gurus.

The Dance Committee performed a piece starting with a semi-classical performance on Guru Vandana which the teachers highly appreciated. It was followed by a short rib tickling skit featuring our regular college life. The nuances of our classroom antics were carefully threaded in the skit including a subtle mimicry of the teachers. We also presented each teacher with a token of appreciation and the music committee dedicated a song to each one of them. The programme ended with a short video wherein the students expressed their love for their teachers. The ceremony ended with the cutting of the cake and once again wishing the teachers a very happy Teachers' Day.

**Debomita Kundu**  
1<sup>st</sup> Year

## SPSS WORKSHOP

The Department of Mathematics organised a three week long certified workshop on Statistical Package for the Social Sciences (SPSS) for the students. The workshop saw enthusiastic participation from the students. Over the course of the workshop, participants were taken over the basics of the software, how to manage data, construct graphs, besides analysing various case studies. SPSS is one of the most sought after software these days, and knowledge of which gives an edge over others during placements, applying for graduate schools and participating in research. The students found the workshop extremely helpful and learnt a lot. The department looks forward to conducting such events in the future as well.



**Financial Mathematics Talk**



**ADPP Function**

## ADPP FUNCTION

On the 9th of February 2018, the Department organised the Anupama Dua Paper Presentation and Scholarship Function, held annually in the memory of one of our own students of the department, Ms. Anupama Dua. It provides the students with a platform to showcase their mathematical research skills.

The event was blessed with the esteemed presence of the mother, brother and sister-in-law of late Ms. Anupama Dua.

The paper presentation began with the scholarship holders presenting their papers. Later, they were felicitated for their meritorious achievement. Furthermore, the presentation was declared open to all the interested students of the department to present their research.

It was a captivating and enthralling experience for those in attendance as they were given the opportunity to witness the beauty of Mathematics in an exquisite form.

**Nehla Shajahan**  
1<sup>st</sup> Year

# ENIGMA 2018

## PANEL DISCUSSION



Panel Discussion

The Department of Mathematics conducted its annual academic meet, Enigma on 23rd and 24th February 2018. The opening event of the fest was a panel discussion on the topic "Redressing the Gender Imbalance in Mathematics: Strategies and Outcomes". The panelists included distinguished academicians from various fields ranging from mathematics to psychology. The ensuing discussion was artfully moderated by the department's very own Ms. Uma Versha Kakkar.

The panelists were given the opportunity to present their views. Prof. Amber Habib - Professor, Department of Mathematics, Shiv Nadar University - presented various statistical data which supported the claim of gender imbalance in the arena of mathematics. Further into the presentation, his stand on the issue urged the audience to question the prerequisite for success - innate ability or hard work. Dr. Habib, in his concluding remarks, emphasised the importance of a teacher's role in being intentional about the manner in which the subject was portrayed.

Prof. Geetha Venkataraman Ambedkar University Delhi - enlightened the audience with the truth about women not being qualified enough to enter selection committees thereby creating a vicious cycle of inability and under representation. She further advocated the dire need for network opportunities and female role models.

Dr. Kanika Ahuja - Professor at the Department of Psychology, LSR - commenced her presentation with a startling fact: certain studies found a direct relationship between social development and gender parity in mathematics, largely owing to a greater influence of the romance culture in developed countries. This revelation paved the way for a new and interesting phenomenon - *Fear of Success (FOS)*, which was relatively lower in the more conservative countries.

Dr. Pankaj Jha - Professor at the Department of History, LSR - abnegated the ability of statistical data to account for the dynamics in an issue as complex as gender parity. Having established the reality of deep rooted patriarchy in our Indian society, he emphasised the need to "deal with the larger canopy".

Presentations from the panelists were followed by an interactive session which saw engaging participation from both sides. The event was undoubtedly an edifying experience for all.

## CLICK-O- MATH

Click-O- Math was a photography competition organised by the Department for their annual academic meet, Enigma 2018. The heads for the event were Malvika Agarwal (2<sup>nd</sup> year), Shubhra Aggarwal (3<sup>rd</sup> year) and Unnimaya C (2<sup>nd</sup> year).

An online preliminary round was held where participants submitted their work based on a given topic for the process of selection for the second round. The topic for the online round was "Arcs". The entries received were rich in creativity and imagination, making the selection process even more difficult.

The topic for the offline round was "Intersection". The photographs and their respective captions by each contestant were very innovative. Overall, it was an enriching experience for the organizing team as well as the participants.

Urfia Abdul  
3<sup>rd</sup> Year



Click-O-Math

Khuisangmi Konghay  
1<sup>st</sup> Year



Inaugural Ceremony



Mathematical Summit



Monopoly : The Math Edition

## MONOPOLY: THE MATH EDITION

Monopoly: The Math Edition, headed by Navya Vardhan (2<sup>nd</sup> year), Shriya Krishna Kumar (2<sup>nd</sup> year) and Rajlaxmi Adwani (1<sup>st</sup> year) was introduced for the first time at Enigma 2018.

Held on 23rd of February 2018, it consisted of two rounds, first being a qualifying round that required the participating teams to answer 20 mathematical questions with pop culture and general knowledge incorporated. A total of 14 teams participated in the first round from which 4 teams with the highest scores proceeded for the final game of monopoly. The life-sized board game required buying properties by solving maths questions. The 'Golden Speed Bump' spot on the board brought in more fun to the game as the participants were asked to complete fun simple dares to earn points. The event was a tremendous success.

Navya Saini  
1<sup>st</sup> Year

## MATHEMATICAL SUMMIT

SUMMIT, a one of its kind inter-collegiate debating competition formulated on the lines of an MUN conference, was organised by the department. The excitement surrounding the event was well in tune with the charisma of Day 2 of Enigma, the department's annual academic meet. The heads for the event were Neetika Verma and Sakshi Singh from the second year. Priyanka Priyadarshini from LSR and Dyuti Gupta from Dyal Singh College consented to be the chairperson and vice-chairperson of the event respectively.

Discussions revolved around the agenda - "Ambit of Mathematics as a Discipline: Science, Humanities or Both?". The competition witnessed participation from students of various colleges across Delhi. The interdisciplinary approach of the delegates ensured that the coming discussions were balanced and integrated.

The debate commenced with a moderated caucus wherein the delegates delivered short speeches giving a brief overview of their stance. This was followed by interjections from fellow delegates and soon, discussion on the topic for the upcoming moderated caucus ensued. After careful deliberation, the committee zeroed in on "Influence of Various Disciplines on Mathematics", which facilitated a thought provoking discussion on the interdisciplinary approach to mathematics.

One of the questions that arose was: "Is maths a superset of various subjects, or is it a subset of a larger set?", to which a delegate responded by maintaining that maths consisted of various subjects which did not exist in their pure form but adapted to the needs of maths.

Another delegate asked, "If science is indeed based on the truth, then how is this truth determined; by the physical world or by the beliefs of society?" - not only questioning the identity of mathematics as a science subject but also its very cornerstone.

The discussions thrived both in terms of imparting knowledge and facilitating meaningful exchange of ideas, largely owing to the chairpersons who ensured that direction was not lost. In a nutshell, the event was an enriching experience for all.

Khuisangmi Konghay  
1<sup>st</sup> Year

## SHERLOCKED

Sherlocked has been a trademark event of Enigma and like every year, the event witnessed massive participation.

The competition was organised on the second day of the academic meet and it entailed four major rounds.

First was 'QUIZZITCH', a quiz round. After the first round 17 teams were shortlisted for round 2 called 'KRYPTICO.' In this round, the teams were supposed to break a mysterious code to get entry into the third round. 11 teams reached the 3<sup>rd</sup> round, 'SENS O MANIA.' In this round, the participants were challenged with mind boggling audio and visual based questions. 4 teams were shortlisted for the final round. The final round was 'THE GREAT GAME', formulated on the lines of a treasure hunt in which the teams were expected to locate and decipher the clues to reach their destinations to further solve the mystery. The participants put on their detective hats and accepted the challenge with great enthusiasm.

The event was headed by Neha Petwal from the third year along with Vibhuti Pandey, Vartika Zutshi and Malika Singh from the second year.

Reetika  
1<sup>st</sup> year



Sherlocked

# OUTSIDE THE BOX

Having gone through the rigour of studying Mathematics extensively in both school and college, we believe the students are equipped with the necessary experience to offer their opinions on the various aspects of teaching and studying Maths.

In this section, students give their opinion on the topic:

**What do you think about the curriculum of Mathematics that is set at a school level and at a college level and is it the reason due to which many people develop a 'fear of Mathematics' and do not continue with it in their higher studies?**

**Also, is there a change that you suggest in the pedagogy employed for Mathematics at both the school and college level.**

**What problems and solutions do you have to offer for the curriculum and the teaching methods of Mathematics in India.**

There is a vast difference in the Mathematics curriculum at school level and the college level. Similarly, the problems with the two are different as well.

While at the school level, the problem lies more in the kind of pressure that is associated with the subject than the syllabus itself. This pressure in turn affects the way Maths is taught at school level with the 'toppers' being encouraged to take it up to score higher and the 'back benchers' being deemed inefficient to pursue the subject.

At the college level, the study of Mathematics becomes extremely theory centric with little to no practical experience. The subjects, while interesting, are so deeply rooted in theory that their practical application becomes lost in the process.

**Mugdha Khandelwal**  
2<sup>nd</sup> Year

Who doesn't feel smart when they can find the answers and when they figure out new concepts.

But, math gets harder gradually and by that I mean it requires more time and practice. And it is hard to work hard.

Suddenly, we aren't 'good' anymore. Everyone (even some teachers) tell us 'You won't need it after school.' In fact it has become a trendy cool thing to say that 'I suck at math', Math becomes a talent, not a skill, and there's nothing we can do if we don't have it.

Bad curriculum and not so good teaching methods along with our problem of not working hard adds to Mathematical phobia. We start feeling that 'Math doesn't apply to us' or 'I can't see the Math I'm learning anywhere around me' probably because we are not taught to see it around us. Even when a teacher tries to go beyond curriculum and tells us what actually we study and how to visualize that in real circumstances (isn't it weird to call that's as 'beyond curriculum' but that is the harsh reality), he/she is rushed by administrative pressures to complete the syllabus and to follow certain guidelines.

Mathematics has a stigma of being hard and we all are one way or the other responsible for it. The only solution I feel would work is doing our jobs passionately and sincerely, teachers educating themselves and the students in a comprehensive and creative way and students putting maximum effort in learning what is taught and not minding working hard.

**Rashi**  
3<sup>rd</sup> Year

The curriculum can appear to be rigid and outdated. Even though important concepts are present, methodology needs to be updated. The curriculum in itself can restrict teachers from spending more time sharing in-depth knowledge of the subject as Mathematics is an integral component of the rat race set up of Indian schooling. From a cultural stand point, being good at Mathematics implies one is intelligent which creates pressure on the students.

Often due to standardized testing, students can't solve mathematical problems in a short time frame. This can result to mathematical anxiety where students have fear that interferes with math performance. Perhaps adding practical examples to the curriculum and involvement of logical/mathematical puzzles at a young age may inculcate interest in the subject. Teachers need to be patient with students with math anxiety and more students passionate about the subject should be encouraged to go into the field of education.

Mathematics should be recognized as an art and student should be taught the applications of the subject so that they understand why they are studying it. Mathematics is like any other language which takes time and effort to be fluent in.

**Shriya K. Kumar**  
2<sup>nd</sup> Year

As far as the syllabus is concerned I feel that the earlier syllabus was better than what we are taught now. The concepts that we are learning today in the senior secondary level should be introduced at secondary level.

I feel Mathematics is not just about numbers, it's more about imagination and logic which in most of the cases delivered in a rather theoretical way because of which I feel students, at a very young age, start developing a fear of maths and that fear is encouraged mostly by their peers, parents and/or teachers which further puts a young mind in dilemma and those small statements such as 'maths is a very difficult subject, it's not your cup of tea' and 'you need to put efforts or work harder' etc. add to this dilemma. Gradually with time, this develops into a fear and as soon as students enter 9<sup>th</sup>, 10<sup>th</sup> or 11<sup>th</sup> standard, they may not be very sure about what all subjects they are going to study but yes, they are very confident about dropping mathematics as they perceive it to be of no use to them as they won't study it for knowledge but for marks and that too they are not certain about scoring good marks which might potentially result in a drop in their percentage because of which they may not get a decent percentage for a decent college or for pursuing the course of their own choice.

**Malika Singh**  
2<sup>nd</sup> Year



**Prof. Manjul Bhargava, Fields medalist and Ms. Uma Versha Kakar at "Science Impacts Lives" Seminar held on February 15, 2018 at the President House.**

## ACROSS

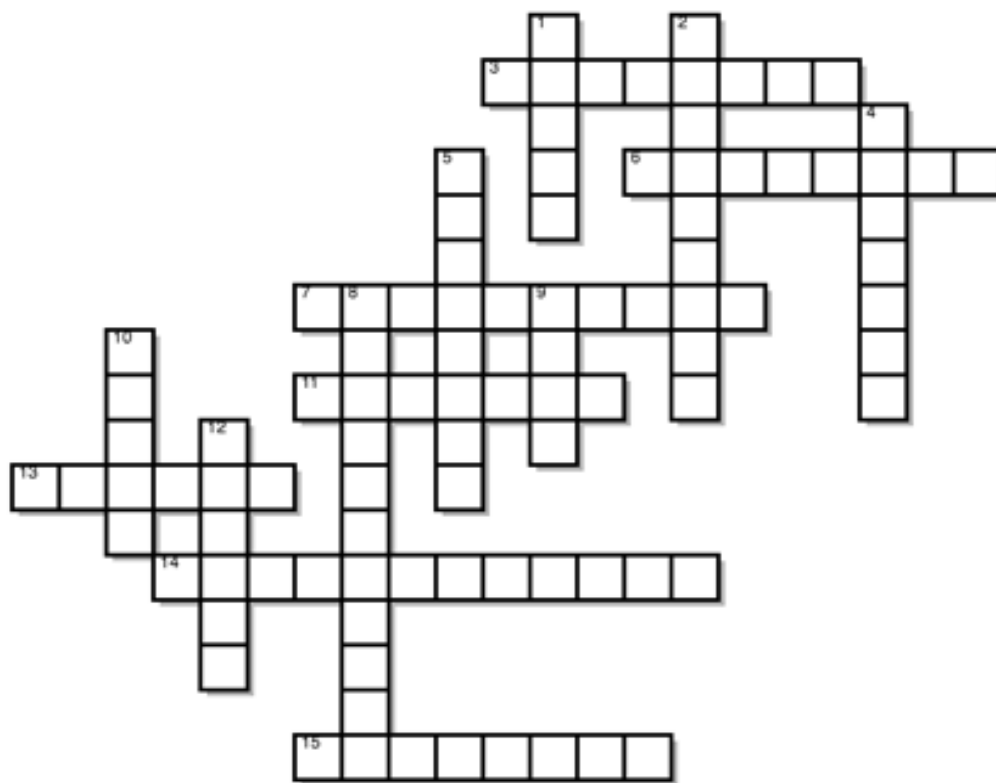
- 3 Iconic song by One Republic- \_\_\_\_\_ Stars
- 6 Unicorn is the national animal of \_\_\_\_\_
- 7 Member of the band The Beatles who was murdered.
- 11 Famous French dessert made with almond based cookies
- 13 Name a city of the world that functions on waterways only.
- 14 In math, the \_\_\_\_\_ principle states that every non-empty set of positive integers contains a least element.
- 15 The Universal \_\_\_\_\_ Movement was started for establishing the right to vote

## DOWN

- 1 "\_\_\_\_\_ is a free elf"-famous line from Harry Potter.
- 2 In this syndrome, feelings of trust or affection are felt in many cases of kidnapping or hostage-taking by a victim towards a captor.
- 4 Last name of the famous theoretical physicist who passed away recently.
- 5 The person behind the famous 'Game Theory' in Economics.
- 8 Capital of the country Burkina Faso.
- 9 'The Battle of Waterloo' was won on the playing fields of \_\_\_\_\_

- 10 This article of clothing was designed for people who work in mines.
- 12 Name of the Famous Painting by Edvard Munch- The \_\_\_\_\_

## CROSSWORD PUZZLE

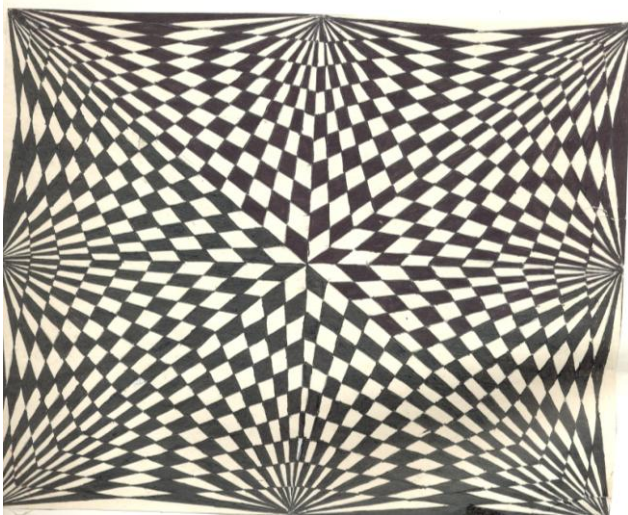


### ANSWERS

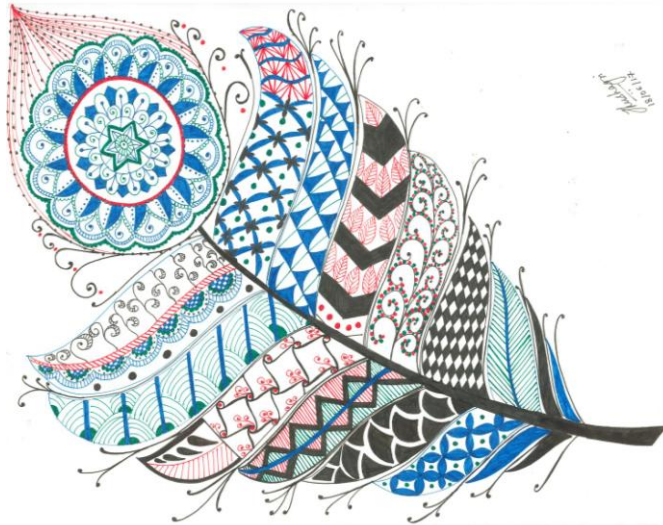
- 1 Dobby
- 2 Stockholm
- 3 Counting
- 4 Hawking
- 5 John Nash
- 6 Scotland
- 7 John Lennon
- 8 Ouagadougou
- 9 Eton
- 10 Jeans
- 11 Macaron
- 12 Scream
- 13 Venice
- 14 Well Ordering
- 15 Suffrage

# ARTWORK

*Everything you can imagine is real.*  
-Pablo Picasso



**Shubhra Aggarwal**  
3<sup>rd</sup> Year



**Kushagri Tandon**  
2<sup>nd</sup> year



**Poonam Sharma**  
3<sup>rd</sup> Year



**Shubhra Aggarwal**  
3<sup>rd</sup> Year



**Kushagri Tandon**  
2<sup>nd</sup> year



**Poonam Sharma**  
3<sup>rd</sup> Year

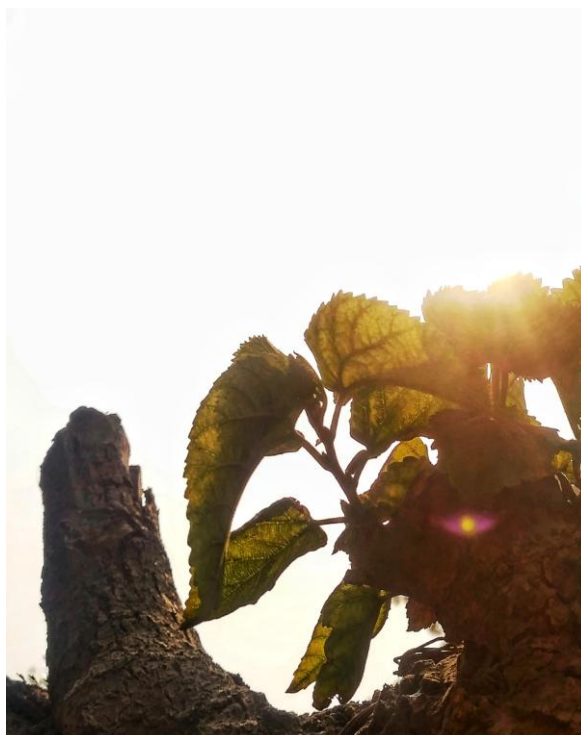


**Jaya Sharma**  
1<sup>st</sup> year

## WINNERS OF CLICK-O-MATH, ENIGMA 2018



**Manish Kumar**  
Gujarat Forensic Science University  
(1<sup>st</sup> Position)



**Vanashree Nair**  
Ramjas College, DU  
(2<sup>nd</sup> Position)



**Utsav Mittal**  
Ramjas College, DU  
(3<sup>rd</sup> Position)

# ARTICLES

## SLAVERY OF THE MILLENNIUM

I see everyone as a victim of a world driven by social media likes and a thirst for information, only the intensity of jeopardy increases. How is it that seventy per cent of the world population today seems to have been clutched by the veil of narcissism? Maybe, just maybe people aren't as happy as they seem over the internet and are being coerced into being a version of themselves which doesn't justify their identities. Baroness Greenfield, a professor of pharmacology at Oxford University, said Facebook and Twitter have created a generation of people obsessed with themselves, who have short attention spans and a childlike desire for constant feedback on their lives. Though the Internet may seem convenient but it has led us to identity crisis. Amid this crisis are the ever growing tentacles of 'Infomania'. The Oxford dictionary defines it as the compulsive desire to check or accumulate news and information, typically via mobile phone or computer. This desire for inordinate data comes from the inherent belief that knowing more is synonymous to being more educated. It has to be OK to say, "I didn't see it/read it". The information we consume should reflect our personal choice and not societal expectation. Otherwise we will have spent a life catching up on Netflix series and checking Facebook notifications. This is not only futile but is also stressing us out. Many neuroscientists claim that our brains are not wired to multitask well and with all the information overload we'll soon debilitate our brain cells. I call it the "Slavery of the Millennium". Try spending an hour without any electronic device, you'd understand why am I stressing out so much.

Anukriti Goel  
1<sup>st</sup> Year



## TRANSCEND

I was all dark, dark like the wings of raven  
Tracing my path through ominous darkness  
It called me from a distant land,  
Not with a crash but a whimper.  
I wanted to curl and become invisible,  
Invisibility now a luxury.  
My only resentment that I couldn't relent  
Tried to cage the beast inside  
A beast nurtured all along the way  
Now my home called me,  
A call cognizant of my fear  
I walked and walked and walked  
So that one day I could stand still  
Future never belonged to me  
But my puny steps waiting doom  
In every step I lost every thing  
But a lifetime painted black  
Every breath counted  
Not for survival but selflessness  
They said they'll come,  
Come to take me for a greater purpose  
I closed my eyes,  
Eyes acclimatized to a greater darkness.  
A darkness that cloaked my existence  
A darkness that fooled the moonlit denizens  
Maybe I was darkness,  
Darkness lost amidst the greater darkness  
Darkness that people mistook for light  
Darkness I am, I accept more of it  
But if I can't redeem myself  
I won't shun myself either  
Because there are sparks,  
Sparks of twinkling hope  
Diminishing every time,  
Every time I reach for them  
And soon they will catch fire  
Darkness burning in light  
My darkness, wholeheartedly I accept  
And whole heartedly I shun it  
Whole heartedly I want more  
I am a mortal unsatisfied  
Not satiated is my thirst  
And unquenchable shall it remain  
A thirst that helped me move mountains  
And won't disappoint when I turn a new leaf  
I close my eyes again and see a light,  
A light lighter than a feather for it can't carry me  
But a feather is all that I need to fly,  
Fly in the moonlit sky with wings as dark as a raven's  
I knew whose light it was  
And as I could see her transforming into light  
While I was morphing into darkness,  
I knew I could transcend.

Vandita Shankar  
1<sup>st</sup> Year

जब एक कविता लिखी जाती है,  
हज़ारों शब्द काटे जाते हैं,  
हज़ारों पंक्तियाँ मिटाई जाती हैं,  
कई पन्ने फाड़े जाते हैं,  
कई कलमों बदली जाती हैं,  
लाखों शब्दों का युद्ध होता है,  
हज़ारों में से शब्द चुने जाते हैं  
कभी कभी कई शामें भी बीतती हैं,  
कभी कभी अनगिनत रातें भी खो जाती हैं,  
जब एक कविता लिखी जाती है ।

जब एक कविता लिखी जाती,  
एहसास एक ही होता है,  
अज्ञात दिल में एक ही होता है,  
कुछ तन्हाई को काटने के लिए लिखते हैं,  
कुछ तन्हाईयों के लिए लिखते हैं,  
कुछ अंधेरे में रोशनी लाने के लिए लिखते हैं,  
कुछ अंधेरे की कालिमा के लिए लिखते हैं,  
कुछ महसूस कर जानकर लिखते हैं,  
कुछ दीवानगी से लिखते हैं,  
जब एक कविता लिखी जाती है ।

जब एक कविता लिखी जाती है,  
कई मतलब निकाले जाते हैं,  
कई अर्थ निकाले जाते हैं,  
जो लिखने वाले ने सोचे भी नहीं,  
ऐसे मर्म निकाले जाते हैं,  
कई वाह - वाह भी सुनाई देती हैं,  
कई आह भी सुनाई देती है,  
किसी की रूह की तो किसी के होठों की,  
शाबाशी सुनाई देती है,  
जब एक कविता लिखी जाती है ।

Mansi Goswami  
2<sup>nd</sup> Year

## CONSENT AND CUPCAKES

Woke up today,  
Thinking of consent and cupcakes  
I was still in bed with him  
Oh, we had a good time last night  
But...  
Yes, that 'but' is what consent is  
It is a cupcake that I did not want to share  
It is a cupcake I thought I wanted to share  
But as he inched toward it, I realized I didn't  
It is a cupcake I did not want to share  
But convinced myself I wanted to  
It is that cupcake, "just a cupcake"  
But I did not want to share it  
It is the cupcake I've been wanting to share  
For a while now  
But I do not want to anymore  
It is a cupcake that I have shared before  
But I do not want to today  
It is a cupcake I promised I'd share  
But I do not want to right now  
It is a cupcake, and I do love you  
But I do not want to share it with you  
It is a cupcake I gave you a bite of two minutes ago  
But I've decided I do not want to give you another  
It is a cupcake that your teeth are biting into  
But I do not want to share it so I stop you  
It is a cupcake everyone around me has shared  
But I do not want to share it  
It is a cupcake I sell in my shop  
But I do not want to sell it to you  
Just because I sell it to others  
It is a cupcake that you cannot force me to share  
When I do not want to  
It is a cupcake that I will not share  
When I do not want to  
It is not just a cupcake  
It is not trivial  
And it is not for you to snatch  
It is a cupcake that will rot  
Inside my soul  
Because you took it from me  
When I did not want to share it  
It is not just a cupcake.

Rajlaxmi Adwant  
1<sup>st</sup> Year

**CONSENT  
IS NOT:**

Assumed      Coerced  
Implied      Convinced

# ARTICLES

## ESCAPE



'As he tied my hands, held me hostage, I just couldn't let go of the feeling that maybe I'm safe; and his gaze which pierced into my heart, made it seem like nothing was out of place.'

Now you may be thinking to yourself, why would anyone feel that way, especially when he or she is abducted? We can relate this state of mind to what is popularly known as 'Stockholm Syndrome'.

Stockholm Syndrome is a condition in which a person experiences positive feelings or empathy towards someone who has held them hostage. In certain cases, the victim even aids their captors, or safeguards them against law forces. A few months back when the popular Disney fantasy 'Beauty and the Beast' hit the theatres, there were claims that Belle suffered from Stockholm Syndrome. Although there are certain theories pertaining to this theory being untrue, have you ever felt that maybe we all are victims of this condition?

Maybe, we all seek happiness and comfort from something temporarily, knowing that it will destroy us in the due course of time. Maybe, we choose to stay in toxic situations, because we feel that there is no path that leads us out of it. Maybe, we stop retorting because we have lost hope. Maybe, we attach our happiness to something we feel we wouldn't be able to find elsewhere.

Are we all caged creatures, who have built homes inside our cages? Maybe, next time we find ourselves related to such situations, we will listen to that inner voice which says 'Escape'.

**Nehla Shajahan**  
1<sup>st</sup> Year

## GRUMPY ZERO

I am not a hero,  
I am zero.  
For some, I am the creepiest,  
Nobody understands that I am loneliest.  
Fake people cheese me off,  
Epsilons and Deltas are nothing but show off.  
These positive streaks come very near to me,  
But they never get the courage to assimilate in me.  
I am not a hero,  
I am just zero.  
I am the reason why my near and dear ones don't have  
inverse,  
I am excluded from most of the "Groups" in reverse.  
Prime numbers think they are aloof,  
But even they can multiply and make a new loop.  
My presence signifies my absence,  
I am ahead of "One", still, only failures get my essence.  
I am not a hero,  
I am only number zero.  
I am round, I am fat, I am ugly,  
I am stonehearted, I am small, I am wrathly.  
She's positive, he's negative but I am none  
Your anaconda don't want me unless I got buns, hun?  
You start from me, you end at me,  
But why are you so afraid to face me?  
Yes, I am not a hero,  
I am a solitary number, zero.  
You have no idea, how much does it takes  
to be what I am,  
to be zero.  
I hope one day,  
one fine day,  
somebody would look me through rose coloured glasses,  
find me classy, show me little buoyancy,  
I know that "someone"  
would complete me and my poetry.

**Rashi**  
3<sup>rd</sup> Year

## GENDER IMBALANCE IN SCIENCE AND MATH

One of the most prominent social movements, or rather just movements that have emerged out of the new world has been the continuous efforts of moving towards and ideal world, devoid of gap in gender economics. This gap is a huge gaping hole in the balance of the world that tears through every single tier, every single aspect of it. Right from being an XX chromosome till reaching the doorstep of death, women face a challenge in the form of differentiated treatment as compared to their male counterparts. This gap, unfortunately, continues with all its hollow glory, to tear into the field of mathematics as well.

It is not a hidden fact that fields of mathematics, especially when considering higher studies, are not exactly what can be termed "conducive" environments for women. Most women who tend to step into these fields have to deal with problems such as doubts about their ability to perform, a general disdain of their presence by their male colleagues as well as employers, even an intrusion into the personal aspects of their lives. Women in mathematics are rare and those who are, do not have it easy. In fact, they are even deemed incapable of looking after families and not very 'womanly' to begin with. They are even deemed as not ideal romantic partners and are classified as the bona fide 'nerds'.

The problem begins with this question: Why do women need to conform to these expectations in the first place? Why do only women have to worry about balancing a career in mathematics and a family? Men are integral to a family as well and it's high time that men are given the respect they deserve as active members of their family. Men and women are equivalently important to a family and thus are required to be equally responsible for balancing work and home.

Another common notion that contributes to the lack of highly qualified women in mathematics and also the discrimination against those who manage to attain a high standard of education against the efforts of many, is that women are not naturally gifted in fields of mathematics and science. Let us for one moment assume that such a conjecture is actually true. It doesn't mean that women who are continuously proving their performance be treated differently, rather than fact that they have won over their biological default and attained proficiency in mathematics is also commendable. Also, if natural ability was our argument, it is a widely acceptable notion that women are better suited for the kitchen, yet there is a prevailing gender imbalance even in the culinary arts.

What I think the problem is that the patriarchy is getting insecure about the position of women in the world. The growing number of women who are excelling in maths could occur as a red signal to a lot of men, who in return try to debilitate the success of these women, leading them to deviate from choosing higher education in the fields of mathematics. This line of thought is derived from the fact that in global level mathematics tests, fifteen year old girls outperform fifteen year old boys everywhere except a few countries, which is not the norm later because these girls do not tend to choose higher education in mathematics and even if they do they are not given a conducive environment. Rather they have to put in more effort and face harsher criticism.

The solution lies only in education of the current and upcoming generations and standardising every field as a human field rather than a field better suited for men or women.

**Maanasee Sharma**  
1<sup>st</sup> Year

## LET'S EDUCATE OURSELVES

Education is the most powerful weapon that can be used to change the world.

-Nelson Mandela

As a concerned student, I am writing this piece as my duty to apprise my fellow students of the UGC circular and its adverse repercussions on higher education in India and to make them realize that the ongoing struggle is as much of a students' concern as it is of the teachers', if not more.

The reasons for the protests primarily include privatization of higher education under the garb of autonomy and its adverse implications, ad-hocism and the worsening working conditions of teaching and non-teaching staff. However, I shall be only focusing on the former aspect of the protests.

Various teachers' associations and of late the students of universities like DU, JNU and Jamia are protesting the 'negative recommendations' of the 7th Pay Commission.

A memorandum from the Ministry of Human Resource Development stated that 'Central universities are supposed to get only 70% of the enhanced financial burden on account of pay revision. The rest is to be made by universities through self-generation resources.'

This will inevitably result in a hike of the fee of these public funded universities.

This brings us to the question, what is the role of the 'public funded universities'?

The public funded universities are meant to make higher education more affordable and hence more accessible 'for the public.'

However, this unprecedented increase in the fee will adversely affect the scope of pursuing higher education for the economically and socially weaker sections of the society, women and the marginalized sections of the society.

Thus reserving higher education exclusively for those who can afford to pay such exorbitant fees consequently translating into a majority of the youth being unable to access higher education and as a by product, resulting in widespread unemployment.

Quoting Ben Tarnoff from The Guardian, "When we privatize public services, we don't just risk replacing them with less efficient alternatives, we risk damaging democracy itself."

Another important aspect of the ongoing discussion is the distortion of the syllabi of various courses to make them more lucrative.

This corporatization of courses poses a grave threat to the quality of education provided at the college level. The need to generate funds would eventually coerce universities to focus on more lucrative courses that will reflect in a gradual dying out of liberal arts.

Lets remember that it is not just about one or two universities. It is about higher education and its future in India. It's a fight and struggle against strategic depoliticization and further stratification of an already stratified society. Lets be on the right side of history.

No to forced 'autonomy'.

**Kanak Lata Tripathi**  
3<sup>rd</sup> Year

# COUNSEL FROM THE SENIORS

## Q.) How does one start preparing for placements?

First, you have to figure out what kind of profile and company you want, and then prepare your CV. The profile and company determine the kind of questions asked. For example, a consulting firm requires you to prepare case studies and guesstimates.

## Q.) What kind of preparations are required for nailing these case studies and/or guesstimates?

I used the books 'Case Interviews Cracked', 'Case In Point', 'Case Interview Secrets' by Victor Cheng and 'Day One-Case Book'. Further, there are many colleges which take out their own case books—BITS Pilani Case Book, IIM-A Case Book, ISB Case Book, the Wharton Case Book and the Yale Case Book.

## Q.) How does one prepare for an HR interview?

In such interviews, the first question would always be 'Introduce yourself.' You should know your CV very well and should be able to elaborate on it well. You are also judged on your overall personality and confidence, because you would be dealing with their clients if you are hired. You must focus on how you have utilized the last three years.

## Q.) What should one keep in mind while preparing his/her CV?

The CV must focus on the last three to four years. There should be certain 'peaks' in your CV. For example, my 'peak' was my academic performance. For someone it could be 'debates and extensive social work', 'internships' or 'leadership skills' and so on. The point is that you must be able to prove your prowess in a certain field and show that you have utilized your time constructively.

## Q.) What can a student expect to face in the placement process?

There are two types of placements—on-campus and off-campus. The off-campus placement process is more intimidating, but students must not be scared of the interviewers. They are usually friendly and are looking for prospective employees.

## Q.) What special message do you want to give to your juniors?

Firstly, stay calm, think and be confident. For example, out of the three guesstimates that I was asked, I couldn't solve any of them entirely. However, the interviewer later explained to me that my confidence and application of the right rationale and logic is what got me through.

Secondly, perseverance is the key to success. Do not get disheartened if you do not get selected. Keep trying and you will be able to achieve what you want.



**RISHIKA KUMAR**  
Placed at Bain  
Capability Center



**AAKSHI MALASI**  
Financial Mathematics  
London School of  
Economics

## Q.) What is the first thing that any student should focus on while of applying abroad?

Firstly, the students need to decide the country that they wish to study in. There could be various criteria for making this decision like the cost of living, employability prospects, the education system, popular courses and so on and so forth.

Next, the applicants should finalize the universities to which they shall be applying based on the courses offered and the curriculum of the course that they are applying for.

## Q.) What are the general requirements for applying abroad and how?

Most of the universities require you to submit a GRE score, particularly the universities in the US. The applicant should check for the GRE requirement on the university websites.

However, almost all universities, would require you to submit an English requirement score like the TOEFL or IELTS.

Besides that, the students need to primarily focus on their statement of purpose (SoP) and the letters of recommendation (usually 2-3 are required) from the teachers.

## Q.) How to prepare for the GRE and the IELTS/TOEFL exam?

The general GRE exam focuses on English and Maths only. I highly recommend the 'Manhattan's five pounds' book for GRE preparation. It covers all the topics that one needs to focus on and has ample number of questions for practice too. Besides that, for vocabulary I used the 'Barron's word list'.

The IELTS/TOEFL are much easier exams that should be a cakewalk for someone who has prepared properly for GRE

## Q.) How to prepare the SoP?

This is the most important document for your application. It is essentially an essay which describes you as a person and your reasons for studying in that university and pursuing that course.

This has to be a very 'personal' essay which reflects your interests, therefore, I advise all students to not copy from any SoP that they might find online or a pre-written one from a coaching institute.

Mostly while applying to UK, the SoP should be very academics-oriented whereas the American universities put a lot of impetus on the extra-curricular activities, particularly leadership qualities as they focus on the overall personality of the applicant.

However, everything should be well connected and should ultimately prove your passion for the subject. Also, the SoP is very different from a CV.

## Q.) Any tips that you have for the prospective applicants?

It is important that the students prepare a timeline and try to adhere to it. You should submit your applications as early as possible, preferably by end of October/mid November, especially for the British universities, some of which have admissions on a rolling basis.

The entire process might look simple but it is very time consuming and complex. Therefore, time management is the key. Lastly, keep your application, including your SoP very genuine and do not try to copy as the admission-in-charges are experts in their fields and can easily make out when a student is distorting facts.

## Q: For students in their final year, looking to be placed before graduation, what is the procedure for placement?

Once in the 3rd year, all students interested in being placed through the placement cell have to sign up with the cell, and submit their CVs according to the companies they're interested in applying to which are then shortlisted for the interview round. The first term of placements is from August to November, in which Super Blue companies conduct interviews. The second term of placements is from January to mid-April which is when start-ups recruit students.

## Q: Each company differs in its placement process. In general, how does one go about prepping oneself for the process? Also, is there anything in particular that companies look for in a CV, and how does one achieve that?

Start preparing as soon as possible, the best time is now. Work on your CV, as that is the first step to getting a good placement. A CV should be well structured, crisp, not more than one page, and should include statistical figures. For example, if you came 2nd in an Olympiad taken by 100 students, be sure to mention that. Companies look for 4 broad headings: academics, positions of responsibility, internships and extra-curricular activities. Attend as many CV building and case study workshops organised in the college as you can.

## Q: How do interviews take place, and what can students expect in an interview?

Interviews have 2 components: technical and behavioural. The technical part includes your academics, working on case studies, guesstimates. The behavioural segment is where companies determine if you'd be suitable for them. This would include discussing your leadership qualities, experiences which shaped you, etc.

## Q: How do you recommend preparing for an interview?

Different companies have different interview processes. Don't lie, prepare and work hard before each interview. Consult books on case studies, and practice discussing cases in groups of 3, taking turns to be the interviewer, interviewee and observer. Keep attempting online aptitude tests. Be spontaneous, relaxed and stress free during interviews because it shows!



**APURVA SINHA**  
Placed at Siam Makro  
Coordinator, Placement Cell

## "Because, you have to try ": Message from an Alumna

My mark sheet indicated that I was in the middle among the 42 bright and talented women graduating from LSR Maths in 2010. Mine was far from the best resume to send out to PhD programs in the US, but I had to try. All 20 schools I applied to rejected my PhD application, but one accepted me for a Masters program. After two months in the MS Mathematics program at Rutgers University, I realized that I had little passion for theoretical Maths. Instead of dropping out of my Masters, I decided to change from Maths to Stats; because I had to try. As it turned out, Statistics was a great fit for me. Given my disjointed Masters, and close to zero research experience, my resume was not the best to send out to PhD programs in Statistics; but I had to try. I got accepted to only one of 16 PhD programs I applied to. At the University of Minnesota, Statistics department, I finally excelled. This would have been impossible without the mathematical foundations that has been built during my time at LSR. The self-reliance and confidence that LSR Women usually embody, helped me fight through the inevitable struggles of graduate school. I graduated with a PhD in Statistics in February 2017, and am currently a Postdoctoral Researcher at the University of Warwick, working in the general area of "Markov chain Monte Carlo".

Throughout my MS, PhD and now research career, I have often found myself to be the only woman in the room. This is such a stark contrast from LSR, but sadly, reflects the gender disparity in STEM fields. Often women are discouraged (internally or externally) to pursue theoretical fields such as Mathematics. To the current student body at LSR I say, unknowingly, you have already defied societal norms by choosing and excelling in this field. To continue breaking barriers and exceeding expectations, you must take your chances in life after LSR. You must aim higher than the world expects you to. Because, you have to try.



**DOOTIKA VATS**  
Batch of 2010  
Department of  
Mathematics