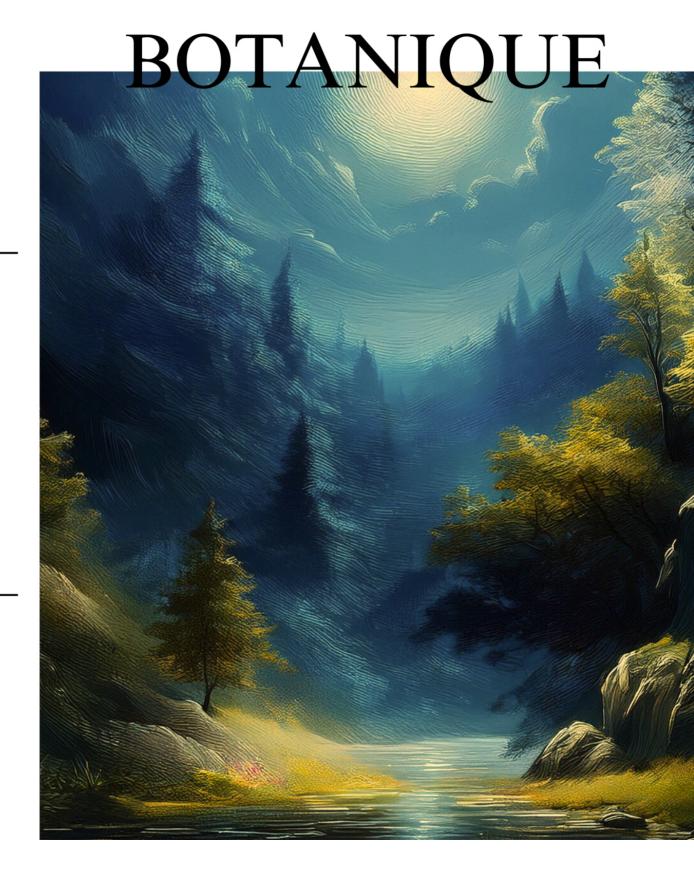
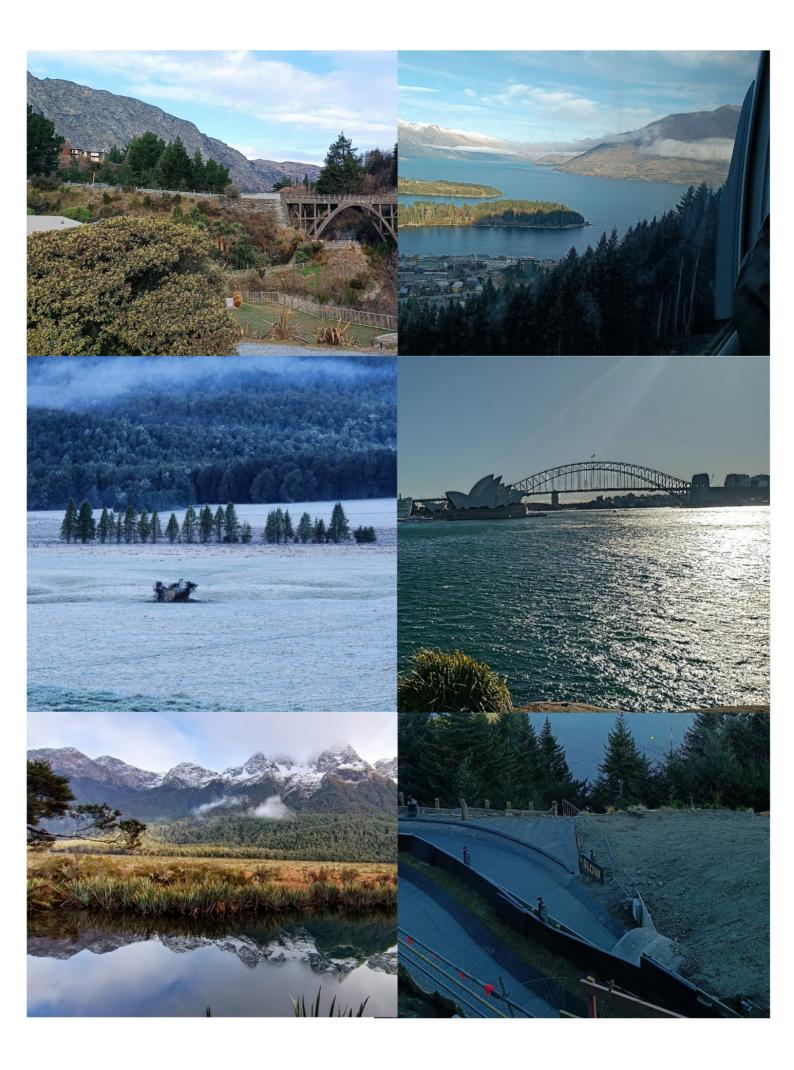


#### WOMEN'S CHRISTIAN COLLEGE, CHENNAI

DEPARTMENT OF PLANT BIOLOGY AND PLANT BIOTECHNOLOGY







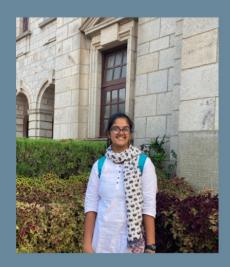
#### Meet the editors of the magazine. BOTANIQUE!



**Chief Editor** Lakshana R H - 21PBB18



**Executive Editor** Afrah Fathima S - 22PBB47



Editor- Creative Corner Ananya Menon- 22PBB05



**Co-Editor** Mrithula - 22PBB26



**Co-Editor** Subhiksha D - 21PBB53



#### Lakshana R H - 21PBB18 Chief Editor

# HOTE From the FINTOR

When all sciences taught me to think, botany taught me to rest under trees and write poetries.

The experience of putting together the first-ever annual magazine release for the Department of Plant Biology and Plant Biotechnology was many things—tedious, hard work, exhilarating, and full of learning. Having a group of dedicated individuals working toward a common goal meant meeting regularly, making trips around, reminding ourselves of deadlines, and, most importantly, discovering the talents everyone brought to the table.

Each page has a personal touch from everyone involved. The picture gallery, little writings, minor edits, finalizing fonts and layout, and all the small efforts of reaching out to students to contribute to this piece of memory—we have persevered to create it. I hope you find a piece of yourself that you gave to us, preserved to the best of our abilities, in these pages.

ENJOY!



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#### A Prayer for Our Department

#### Heavenly Father,

We come before you with hearts full of gratitude, thanking you for your amazing grace that has sustained our department for over a century. We are mindful of all those who have led, taught, learned, and served within this department - each one contributing to its rich legacy. May Your blessings be upon them wherever they are today, guiding and protecting them in all their endeavors.

Lord, we especially thank you for enabling us to see the fruition of the inaugural edition of this magazine. It stands as a testament to the dedication, hard work, and collaborative spirit of everyone involved.

We pray for the unity and strength of this department. May the faculty and students be bound together in a spirit of collaboration and mutual respect, working together to achieve excellence in all they do. Grant the faculty clarity of thought and wisdom as they guide and mentor the students, inspiring them to explore the wonders of your creation through the study of Botany.

Lord, give the students a heart to receive what is taught, that they may grow in knowledge, understanding, and character. Let their learning be not just for academic success, but for the greater purpose of serving you and others with the gifts and talents they have been given.

Thank You, Lord, for leading us this far. We trust in your continued guidance as we embark on new journeys of learning and discovery. May this department continue to be a beacon of knowledge, growth, and faith for generations to come.

In Jesus' name, we pray. AMEN.

"Nurturing Eves to Flourish and Bloom."

"Where Passion for Plants Meets Innovation." "Green Dreams and Schemes: Botany's Endless Themes!"

#### Vision Statement

To nurture and empower young women to excel in Plant Science through a supportive and inclusive environment that fosters curiosity, innovation, and excellence.

"Transforming Curiosity into Botanical Expertise."

"From Roots to Shoots, Botany Bears the Fruits!"

"Empowering Tomorrow's Plant Scientists Today."



Dr. Sherrie Tesulyn David

#### Dear Readers,

It gives me immense pleasure to introduce the inaugural issue of "Botanique," our very own Botany Department magazine. This marks a significant milestone for our department, as we embark on this new journey to share the activities of our community with a wider audience. For me, as the Head of the Department, this magazine is a dream come true, reflecting our collective aspirations and achievements. "Botanique" is a celebration of the dedication, curiosity, and innovation that define our department. Within these pages, you will find the activities of the department and insightful articles from our talented

## LETTER from the HFAD

#### Plant Biology and Plant Biotechnology

students. Each contribution reflects the passion and commitment that drives our quest to understand the botanical world.

Our department has always prided itself on fostering a collaborative and dynamic environment. This magazine serves as a testament to the vibrant exchange of ideas and the remarkable diversity of thought that characterize our work. It is our hope that "Botanique" will become a cornerstone of our department's communication, strengthening our community and extending our reach beyond the campus.

I would like to take a moment to appreciate the diverse talents of our students, which are wonderfully manifested in the articles featured in this issue. Your creativity and enthusiasm are truly commendable, and I encourage all of you to continue contributing your insights and discoveries. I eagerly look forward to seeing even more innovative and thought-provoking pieces in the next issue of "Botanique."

I would like to extend my heartfelt thanks to everyone who has contributed to this first issue. Your efforts have brought "Botanique" to life and set a high standard for future editions. I am confident that this magazine will become a cherished part of our department's legacy.

#### **Teaching Faculty**



**Dr. Sherrie Jesulyn David** Head & Associate Professor



**Dr. Pauline R**Associate Professor



**Dr. Cordilea Hannah** Associate Professor



**Dr. Preeti Mehta** Assistant Professor



**Dr. Evelin Kramony**Assistant Professor



**Dr. Angeline Sridevi MLS**Assistant Professor



**Dr. Monica S**Assistant Professor

#### **Non-Teaching Faculty**



Ms. Pramila P



Mr. Sunil Vijaya Kumar N

#### Honouring Generosity: A Heartfelt Tribute to Our Scholarship Donor

-Dr. Sherrie Jesulyn David



This academic year, five deserving students from our department were honoured to receive the prestigious Ms. Molly Kurian Scholarship. This scholarship, generously sponsored by Mr. Jacob Kurian in memory of his beloved mother, Ms. Molly Kurian, an alumna of our department, has provided these students not just with financial support, but also with the encouragement to pursue their academic dreams with renewed determination. We are profoundly grateful to Mr. Kurian for his unwavering commitment to empowering the next generation of leaders through education. His generosity is a testament to the enduring impact of his mother's legacy, and we are truly honoured to be part of this noble endeavor. We extend our heartfelt thanks to Mr. Jacob Kurian. Your support has not only transformed the lives of these students but has also inspired our entire department. We look forward to witnessing the positive ripple effects of this scholarship in the years to come.

Recipients of Molly Kurian Scholarship from the department of Plant Biology and Plant Biotechnology include:

Anitha S (21PBB03) - Rs. 34,365/-Leelavathy S (21PBB19) - Rs. 34,365/-Merlin R (21PBB39) - Rs. 34,365/-Beaulah Rejoice (22PBB06) - Rs. 38,565/-Daisy Beula A (22PBB08) - Rs. 38,565/-

#### Molly Rebecca Kurian - An introduction to a life well lived!

- Jacob Kurian, eldest son.

Every girl should get an education, and every woman must have her own independent means of earning a livelihood. -Molly Rebecca Kurian, WCC graduate, BSc (Botany).

Molly Rebecca Kurian (nee Mathew), was born and educated in Jaffna, Ceylon (now Sri Lanka) where her father was a doctor at a missionary hospital. Post the World War, her parents returned to their ancestral home in Adoor, a small village in Kerala, where for decades, my grandfather was the sole village doctor. Always a bright student, a young Molly was sent to the prestigious WCC in Madras, for her undergraduate degree.

Madras (Chennai) was a revelation for my mother, who plunged into everything that WCC had to offer. She found her passion in Botany and soon became the class topper. She made a circle of lifelong friends, among other young, independent minded women like her.

From her mother, Molly inherited a robust common sense and no nonsense approach to life. Her cerebral father gave her a love for reading that lasted for a lifetime and was passed on to her children. Molly had dreams of studying medicine but given the limitation of the wages of a village doctor and a more patriarchal era, her brothers were sent to professional courses. Never one to give up easily on anything she set her mind to, she managed to get a Home Science seat in Lady Irwin College in Delhi. Travelling for days on trains, alone with her steel trunk for company, my mother felt she could conquer the world. But fate intervened. Her mother, whom she adored, fell seriously ill and she was called back to attend to her. Unfortunately, her mother passed away shortly thereafter, and the family elders decided that Molly should be married off.

A match was soon arranged with a handsome young man from a good family. My father was a young Chemical Engineer and soon after her marriage, she left for Rishra in Calcutta, where she lived in the factory colony — while learning the arduous task of being a housewife, she soon had to also learn to be a mother as well. I was born in (1956) and in a couple of years, a second son was born (1958). Life in West Bengal was becoming increasingly dangerous due to militant labour unions. My mother used



reminisce that to when her husband went off to work, it wasn't clear if he would come back alive. Not wanting to become a young widow, she demanded that my father should move south and so we moved to the tiny factory town of Ranipet in Tamil Nadu (1961).Ranipet then was a one thing town there was one EID

Parry factory, one staff colony, one club, one store, one restaurant, one primary school - and Molly happily adjusted to her new circumstances. The club was the centre of social life, and my mother played badminton, won prizes in fancy dress, made pickles with other housewives - life was peaceful until my brother and I had to join school. My father was the product of a village school, and the village primary school shared a wall with our home. He felt it was ok for us to start there but Molly would have none of it. A good school education was not something she was prepared to compromise on - so at the tender age of 7 years, I was bundled off to boarding school in Bangalore. A year later, (1963) Molly moved to Bangalore, living alone while she put my younger brother into KG before he too joined me in boarding. Every vacation, we would travel by train to Katpadi Jn where my mom would have cooked and packed all our favourite foods - and two starving boarders would stuff themselves in the car. The return trip to boarding school would be filled with tears from us as well as our parents. I never understood, as a child, why we were being sent away, if everyone was crying so much about it. But my mother was crystal clear that her kids would get the best education she could afford to give. Years later, I can appreciate the huge advantage that a good school gave us, and as a parent myself, the tremendous sacrifice that she made.



Years passed by in Ranipet when my mother's desperate wish for a daughter, resulted a third pregnancy, ten years after she had her first child (1966). Very soon, it was clear that

instead of one child, she was going to have twins. But God played a cruel little twist, when she had twin boys. I think my mother was depressed while the scenes around her were comical, if not tragic. Becoming the mother of four boys seemed to make her a lucky charm in the male child obsessed rural society we were living in. Village women would ask to rub their hands on her — because "Ayyo Bhagyalakshmi, you gave birth to four boys!". I can only imagine how my mother must have felt — disappointed at not having the daughter she yearned for but also the chagrin of such blatant gender bias, which she deplored.

My parents moved to the steel township of Durgapur. This was an American JV, and my mother was soon the social centre of the colony - her facility with English and outgoing personality, helping the expat American workers to adjust to life in India. My father, who was an excellent engineer but also loved by labour, soon resolved the intractable labour issue that he was recruited to resolve. The promised move to Bangalore happened and my mother's next project became the twin boys - my youngest brothers would grow up at home, under the close tutelage of my mother. Doing well in academics was an unstated expectation, and all of us did well in school. I became an engineer, and my second brother became a doctor – typical middle class career choices of the seventies. But the Kurian twins, as they came to be called, soon out did anything their elder brothers managed. After a brilliant career in school, they joined IIT Madras for their undergraduate degree. Soon, life played another twist in Molly's life! Princeton University offered the twins a full scholarship and despite every attempt to explain our inability to support a foreign education, the Americans were determined to have them at their university. A full scholarship (and that too, two of them) for undergrad study was unheard of in India then and so with tears in her eyes, Molly bid farewell to her two youngest children and sent the callow 16 year old boys to pursue an education in one of the world's greatest universities. My youngest

brothers would go to stellar careers, after getting MBAs at Stanford. But my mother's constant refrain to anyone who tried to compliment her on their success, was "The Americans stole my children". My mother was not just focussed on education but also on elocution, choir, drama and sports - a well-rounded character was really important to her. All her sons were made to help at home and to learn to do household chores - there were no gender typed roles at home. While not a regular church goer, she knew her scriptures and insisted that her children practice Christian values. My mother's love came with high expectations. Whenever she felt that her sons, needed grounding, she would take us to visit the home that the Missionaries of Charity ran in Bangalore - to bring home the blessings we all had. Truth and humility were really important to her. Whether we were young students or senior executives, every big success, promotion or public recognition was always accompanied with the warning from her – stay humble, don't get a swollen head, give thanks to God!

As the children grew up and flew the coop, my mother regretted she didn't pursue a career of her own. She began to advocate that women should have roles outside the home. Never afraid to express an opinion, she remained a fierce advocate for women and girls. Unfortunately, her marriage with my father fell apart and she refused to accompany him back to Kerala, post-retirement. She continued to live independently in Bangalore. At an age when most elder women won't even move rooms, she decided she would start a new life in America. To the astonishment of everyone, at the age of 82, she moved to America to stay near her youngest sons. She lived independently until the end of her earthly life, enjoying the company of her grandchildren - including many granddaughters who were spoilt by her love for the daughter she never had. The Molly Kurian Scholarships are being constituted in her memory, by her sons, to enable young women to pursue their dreams to lead independent lives.

Department

Reports

#### Fresher's Day

he Department of Plant Biology and Plant Biotechnology celebrated its Fresher's Day on July 24th, 2023. The event was a delightful occasion where first-year students were warmly welcomed into the department. The day was filled with engaging games, interactive sessions, and a heartfelt welcome from the professors, setting a positive tone for the new academic journey ahead.



#### **Inauguration of the Botany Association**



On August 7th, 2023, the Botany Association of Women's Christian College held its inaugural and office bearers initiation ceremony in the Centenary Block. The event was honoured by the presence of the college Principal, Dr. Lilian I. Jasper; the Head of the Plant Biology and Plant Biotechnology Department, Dr. Sherrie David; and the chief guest, Dr. Nirmala Alexander, an esteemed alumna and former Head of the Botany Department at Queen Mary's College.

#### <u>Workshop - Identification and Isolation of Aquatic Fungi</u>

On August 10th, 2023, the Department of Plant Biology and Plant Biotechnology at WCC hosted an engaging workshop on "Identification and Isolation of Aquatic Fungi," led by Dr. Venkateshwar Sharma. The event drew over 70 enthusiastic participants, including research scholars, as well as undergraduate and postgraduate students from various city colleges. The forenoon session featured an insightful lecture on the fundamentals of fungi, followed by an immersive hands-on practice session.



#### **45th Year Celebration of Madras Naturalists Society**

The second and third year students participated in the 45th Year celebrations of the Madras Naturalists' Society, held at the Youth Hostel in Adyar. The students

took part in various competitions organized for college students, such as Nature Relay, List Poem, Ecowreck, Wilderness, and others. Many wildlife artworks were on display, and two groups of students presented their projects on "Ocean Calendar" and "Survey on Job Choices in Youth."



#### **Workshop - Plant Tissue Culture Techniques**



The Department in collaboration with Bionyme Laboratories Pvt Ltd., Chromepet, hosted a workshop titled "Plant Tissue Culture Techniques" on July 7th, 2023. The workshop

was designed for PG Assistants in Botany from Government Aided and Government Higher Secondary Schools across Tamil Nadu. Forty-two teachers participated, gaining hands-on experience in synthetic seed preparation and tissue culture techniques. As a gesture of appreciation, the team contributed 25 varieties of seeds to the department's seed bank. Organized at the request of the Director at SCERT, DPI campus, Chennai, the workshop was led by Dr. Sri Ram and Dr. Leeba Balan, Managing Directors of Bionyme Laboratories.

#### **Environment and Nature Quiz**

The fifth edition of the Environment and Nature Quiz, organized by Apollo Tyres Pvt. Ltd., took place on September 14th, 2023, at Madras Christian College. Thuhina J. R. from III BSc Advanced Zoology and Biotechnology and R. H. Lakshana from III BSc Plant Biology and Plant Biotechnology represented WCC, competing as a team against seven other teams in the Tamil Nadu qualifiers round for the top two spots.



#### A Trip to Cochin and Munnar

From October 5th to October 7th, 2023, the third-year students of the department went on a study tour to Cochin and Munnar. They departed on October 4th, stayed for two days in Munnar, and spent the last day of the trip in Cochin before returning on October 8th. They were accompanied by Dr. Preeti Mehta and Dr. Angeline Sridevi. During the trip, they visited including Kundala several places, Mattupetty Dam, Spice Garden, and the Government Botanical Garden in Munnar. They also explored Eravikulam National Park. In Cochin, they visited the Aromatic and Medicinal



Plants Research Station and the Department of Biotechnology at CUSAT University. The trip was enjoyable, engaging, and beneficial for the students.

#### **Lily Pithavadian Endowment Lecture**



On November 18th, 2023, the Department of Plant Biology and Plant Biotechnology hosted the Lily Pithavadian Endowment Lecture on "The Incredible Salties" during the assembly hour. Dr. Deepak Samuel V, Scientist 'E' in the Conservation of Coastal and Marine Resources Division at the National Centre for Sustainable Coastal Management, Ministry of Environment, Forest and Climate Change, was the guest lecturer. He delivered compelling а presentation on the conservation and breeding of crocodiles in India, enriched with captivating pictures and videos. The session was highly interactive, with students actively engaging with Dr. Samuel to address their questions and gain deeper insights.

#### **Guest Lecture - Career Prospects Abroad**

A guest lecture for the third-year students of the department was held on November 29th, 2023. Mr. Abdul from KC Overseas was the resource person, covering opportunities abroad, the CAT and GMAT exams, and the requirements for the IELTS exam, which is crucial for applying to international universities. The session also included valuable tips on writing an SOP and concluded with an invitation to a demo IELTS class and a feedback session.



#### **GENOTSAV**

On December 15th, 2023, students from our department participated in the intercollegiate cultural event "GENOTSAV '23," organized by the Department of Plant Biology and Biotechnology at Loyola College. They actively participated in all the events and emerged as Overall Winners, sharing the trophy with Presidency College.



#### **Christmas Celebrations**



On December 21st, 2023, the staff and students of our department gathered to

celebrate the department's Christmas Program in the college chapel. The program, which began at 2 PM, featured Dr. Esther Arulmary, the chaplain, as the chief guest. Students embraced the Christmas spirit with carols, a skit, and dance performances. The chaplain spoke about the importance of prayer and the true meaning of Christmas. It was a memorable day for everyone involved as we came together for the celebrations..

#### **PhytoNika**

On February 13th, 2024, students from our department participated in the intercollegiate cultural event "PhytoNika '24," organized by the Department of Plant Biology and Plant Biotechnology at Presidency College, Chennai. Our students won prizes in the events Binomials, Phytolyrics, Quiz, Face Painting, and Herbal Foods, and also actively participated in other events.



#### **Invited Talk - Process of Innovation Development**

On February 19th, 2024, the Department of Plant Biology and Plant Biotechnology, in collaboration with the Institute's Innovation Council, hosted an expert talk on "Process of Innovation Development, Technology Readiness Level (TRL), Commercialization of Lab Technologies, and Tech Transfer." Er. Pon Maa Kishan A. was the speaker, providing students with insights into biomimicry and technologies inspired by biology, spanning fields such as aviation, agriculture, and robotics. The engaging talk left students



inspired and impressed by the multidisciplinary aspects of the field.

#### Field Trip - Agaramthen and Thaiyur Wetlands



https://www.youtube.com/watch?v=4l24I-R7GKUollected

On February 20th, 2024, second-year students embarked on a field trip to Agaramthen and

Thaiyur Wetlands as part of their Taxonomy of Angiosperms and Economic Botany course. The trip focused on field collection techniques and plant identification. Students also enjoyed bird watching at the lakeside, guided by Mr. Darwin Annadurai from Eco Society India, who led an Ecowalk along the Agaramthen lake bunds and assisted in identifying various bird species. Accompanying the students were course teachers Dr. Sherrie David, Dr. Monica, and Lab Assistant Mr. Sunil.

#### COSMOS'24

On February 23rd, 2024, the Department conducted its intercollegiate competition, COSMOS '24, at Benedicta Rowe Hall. About nine colleges sent participants for the event, which was an all-girls competition. The faculty coordinator was Dr. Preeti Mehta. The winners were Ethiraj College for Women, and the runners-up were Madras Christian College. The event was a resounding success, thanks to



the students, Secretary Deepavarshini A.S., Joint Secretary Richlin, the professors, and the lab attendants.

#### **Invited Talk - Potential Career Pathways in Botany**

On February 26th, 2024, the Department of hosted a career guidance program on "Potential Career Pathways in Botany" at Copper Pod, Women's Christian College. Dr. D. Kandavel, Associate Professor in the Department of Botany at Government Arts College for Men (Autonomous), Nandanam, Chennai, was the guest speaker. He discussed career retrospection, choices in competitive exams, and admissions to prestigious universities, and addressed students'



questions. The session proved particularly valuable for third-year students.

#### Capparis'24



On February 29th, 2024, students from our department participated in the intercollegiate botany cultural program, Capparis '24, organized by Madras Christian College. They won prizes in the Dr. K.R. Venkatasubban Oratorical Competition, Biosketching, and Adzap, and actively participated in numerous other events..

#### Astera'24

On March 2nd, 2024, students from our department participated in the intercollegiate cultural event Astera'24, hosted by the Department of Plant Biology and Plant Biotechnology at Stella Maris College, Chennai. They competed in various events and won the Overall Winners trophy, bringing the rolling trophy back to our college for the year.



#### Farewell'24



On March 12th, 2024, the first and second-year students of the department hosted a heartfelt

farewell for their third-year seniors. The event featured lunch, music, dance, games, and various forms of entertainment. With kind words from our professors, it was an emotional and joyful occasion, fostering strong bonds between seniors and juniors. As we wished our seniors success in their future endeavors, the baton was passed to the juniors to lead the department forward.

#### A Green Initiative in Collaboration with Namma Ooru Foundation (NOF)



Nine students from the department actively participated in a "Solid Waste Management" project with Namma Ooru Foundation (NOF), a pioneering organization dedicated to sustainable living solutions. Founded by Mr. NOF provided comprehensive Natarajan, training on climate change, waste management, significance and the of proper waste segregation.

As part of the project, students implemented four-way waste segregation within their homes and subsequently initiated awareness programs on "Trash It Right" at a nearby government school in Pudupet. To reinforce their learning, they actively contributed to the microcomposting efforts at Namma Ooru Foundation's center in Pudupet.

This involved not only the production of compost but also it's distribution to the community and meticulous data collection.

addition to waste management, the students were introduced to Bio-Enzyme, an eco-friendly alternative to chemical cleaners. They mastered the process of Bio-Enzyme production and incorporated it into their daily household cleaning routines. To amplify their environmental message, students effectively utilized social media platforms to promote the importance of proper waste disposal and the benefits of using Bio-Enzyme.



The following students were instrumental in the project's success:

ABINAYA S, INDUJA R, ABINISHA L P, DAISY BEULA A, HANNAH SHARON B, MITHRA M, RESHEGA M, RICHLIN J, SHALINI S.

#### A Summer Transformation - University of Cyberjaya



Last summer, I embarked on an enriching journey to Malaysia to participate in an inbound program at the University of Cyberjaya. The program, with a specific focus on empowering women through entrepreneurship and business courses, deeply resonated with my personal and professional goals. Little did I know that this experience would serve as a catalyst for profound personal growth, cultural immersion, and the creation of lifelong memories.

One of the most impactful components of the program was a psychology workshop titled "Know Yourself." This introspective session delved into the complexities of human personality, allowing participants to gain a deeper understanding of their strengths, weaknesses, and potential. This self-discovery journey was instrumental in fostering a newfound sense of confidence and selfawareness. The program's overarching emphasis on personal empowerment and leadership development significantly contributed to my overall growth.

Beyond the academic realm, Kuala Lumpur, with its vibrant energy and diverse attractions, offered an unforgettable experience. Iconic landmarks such as the Petronas Twin Towers

Twin Towers and the bustling Petaling Street provided opportunities for exploration and cultural immersion. The city's efficient public transportation system facilitated easy navigation and allowed me to maximize my time.

However, it was the genuine warmth and hospitality of the University of Cyberjaya's student council that truly left an enduring impact. Their infectious enthusiasm created a welcoming and inclusive atmosphere, making me feel instantly at home. Sharing laughter, stories, and delicious Malaysian cuisine, such as nasi lemak, with these remarkable individuals forged deep connections that will last a lifetime

The experience in Malaysia was far more than academic iust an program; it was transformative of self-discovery, journey cultural exchange, and personal empowerment. The opportunity to connect with like-minded individuals from around the world and to immerse myself in a new culture broadened my horizons and expanded my worldview. The University of Cyberjaya's inbound program will forever hold a special place in my heart, serving as a constant reminder of the power of human connection, cultural exchange, and personal growth.



-Mohamed Wafira Fathima (22PBB25)

#### **Botany Association Office Bearers (2023-2024)**

Secretary: **Deepavarshini A S** - III Year

Joint-Secretary: Richlin J - II Year

#### Club Co-ordinators (2023-2024)

English literary and debate club: Lakshana R H (Assistant coordinator)

French literary and debate club: Amritha I N (President)

Hindi Literary and debate club: **Afrah Fathima S** (President)

Quiz Club: **Divya R** (Coordinator)

Young India: Keziah Suganthi M (Outreach Head)

Young India: **Richlin J** (Co-Chairperson)

National Service Scheme: **Divyalakshmi S** (Assistant coordinator)



#### **The Green Cover of Chennai City**

From Madras to Chennai, the city has come a long way in its green cover. Being a coastal and metropolitan city, the issue of green cover has become a major concern for its citizens. Studies and satellite images show a drastic decline in the number of trees in the city. The city, which previously did not experience heat waves due to the sea breeze, has been getting increasingly hotter over the years.

With a city that faces severe cyclones and drought conditions, increasing green cover is the only solution to combat these problems. The dams, which fill up after just a brief rain and leave people without enough water during the summer, reflect the poor state of city planning in Chennai.

Chennai's green cover is currently 6.25%, which includes 5 sq. km of moderately dense forest and 4 sq. km of open forest (Forest Survey of India, 2009). The construction of the East Coast Road saw many trees felled between 1998 and 2001. More recently, the construction of metro lines has required the felling of numerous trees, many of which were over 50 years old. Although authorities have claimed to have planted saplings to compensate, citizens are questioning how these new plants can replace the tall and shady trees that once graced their neighborhoods.

The metro rail work has also led to the closure of parks such as May Day Park in Chintadripet, Nehru Park on Poonamallee High Road, and Thiru-vi-ka Park at Shenoy Nagar. Many rare trees, such as Barringtonia acutangula and Berrya cordifolia, in Thiru-vi-ka Park have been removed. Another crucial area in Chennai is the Pallikaranai Marshland. The Perungudi dump yard, spanning over 75.22 hectares on the northeastern part of the Pallikaranai Marsh, has contributed to the loss of 51 percent of the wetland. The Chennai floods of 2015 resulted from extensive encroachment of riverbeds and lakes, and the clearing of trees to develop backward areas into urban spaces. The following year, Cyclone Vardha devastated one-fourth of Chennai's green cover.



TN Government- state planning commission.

A workshop conducted by the State Planning Commission, titled "Green Chennai City," invited institutions and NGOs to submit reports on Chennai's green cover. As a result, the City Planning Commission accepted several proposals to make Chennai greener. There is also growing awareness of preserving the coastal forests, which are rapidly disappearing along the coastline. Nizhal, an NGO, has been raising awareness by creating bio-shields.

A commendable effort by the Greater Chennai Corporation (GCC) is the "Urban Forestry" plan. Along the banks of the Adyar River, a mini-forest and trekking activities have been established in the middle of the city. Though its primary purposes are carbon sequestration and pollution abatement, it has been successful. This effort is based on the "Miyawaki Forests," a plantation technique used in Japan.

While the GCC's plans and the follow-up efforts of citizens and NGOs are making progress, the rate of improvement is insufficient to keep pace with the city's rapid urbanization. If it is acceptable for people to cut down trees for new buildings, it is equally necessary for the Corporation to clear illegal settlements and initiate the creation of green corridors in the city. Government organizations should not hesitate to use their authority to ensure the city meets the minimum required green cover.

-Lakshana R H (21PBB18)

#### <u>Park in Bloom - Semmozhi Poonga</u>



The Semmozhi Poonga flower show was opened to the public on February 10th, 2024, and became one of the main topics of discussion in the city of Chennai.

Reported to feature over 12 lakh plants, the park is a riot of colors with marigolds, roses, tulips, chrysanthemums, and more in bloom. The flowers were displayed in the form of beautiful floral sculptures, including elephants, butterflies, dancing girls, cars, and arches, to name a few.

It was inaugurated by Mr. Udhayanidhi Stalin, the current Tamil Nadu Minister of Youth Welfare and Sports, and the flower show attracted a flurry of visitors.

The flower show also included a variety of fun-filled activities such as pottery, bouquet making, and face painting, offering a break from the hustle and bustle of daily life. I navigated through several families to join the group of kids who had already lined up to get their faces painted with their favorite flowers and cartoon characters.

Beyond its aesthetic appeal, the flower show also provides visitors with educational and enlightening opportunities. Guided tours led by knowledgeable botanists offered fascinating insights into the diverse array of flowers on display, highlighting their unique characteristics and cultural significance.

As the flower show at Semmozhi Poonga progresses, excitement fills the air as visitors prepare to immerse themselves in the beauty and splendor of nature. With its breathtaking displays, educational opportunities, and sense of community spirit, this annual event is truly a highlight on Chennai's calendar.

-Subhiksha D (21PBB53)

#### A visit to Spice and Herb Garden



On October 7th, 2023, the third-year students of our department visited the Greenfield Spice and Herbal Garden located in Adimali, Munnar, as part of an educational trip. They were accompanied by our professors, Dr. Angeline Sridevi and Dr. Preeti Mehta.

The students were given a guided tour of the spice garden and provided with information about the origin, uses, and upkeep of various plants cultivated there. One hundred acres of the land is exclusively devoted to the cultivation of spices, fruits, medicinal trees, and herbs.

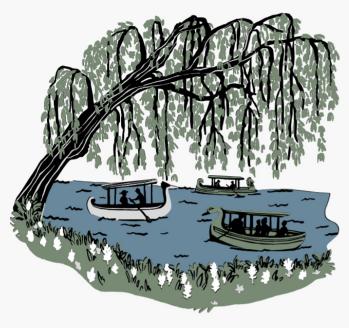
An interesting plant observed by the students was the Torch Ginger (Etlingera elatior), known for its use in treating psoriasis and its antimicrobial properties. Other plants observed included the Rose Apple (Syzygium jambos), Pepper (Piper nigrum), and Turmeric (Curcuma longa), among others.

The guides provided detailed information about these plants and their Ayurvedic applications. After the tour, the students visited the garden's store, where products made from some of the aforementioned plants were available for purchase.

The session was informative, and the students gained valuable exposure.

-Subhiksha D (21PBB53)

#### **The Silent Conversation**



While often we think of plants as solitary beings, growing quietly in their corner of the world, they actually are engaged in a sort of cryptic and interesting communication that goes on deep beneath the surface. Now, there is something called as root exudates, they basically are the compounds that are released into the soil by plants, facilitating this silent communication.

Consider the roots of a plant as tiny little factories that generate a large array of chemicals, including sugars, acids, and other organic substances. These chemicals seep deep down into the soil, where several important functions are served.

The fact that plants may interact with one another through root exudates is fascinating, isn't it? Lets say, particular signals are sent out by plants into the soil when they feel like they require assistance from fungi or other microorganisms. The plant subsequently receives assistance from these fungi at its roots which helps it absorb nutrients more efficiently. But, well this isn't an unbalanced relationship with only one-sided benefit, in return, the plants provide the fungi with essential sugars. This partnership is crucial for a plant's healthy growth.

but the communication doesn't just stop there. Plants sway their neighbours using these chemical cues. Certain plants emit chemicals that could prevent their neighbours' growth and help them accumulate more resources. On the flip side, they can also emit signals that could promote the nearby plant development or draw in helpful bacteria that improves soil quality.

These root exudates are not only important for the general health of the soil but also for the survival of the individual plants. They help improve soil structure and fertility, which benefits all the plants in an area by contributing to soil organic matter. Think of it as a community of plants working closely together to make everyone's surroundings better.

Although the entire spectrum of impacts that these compounds in roots have are still being investigated, it is obvious that plants are significantly more interactive than we may have thought. This network of communication, which is usually hidden, demonstrates how life on Earth is interconnected and depicts how seemingly small actions help in preserving a healthy ecosystem.

They are continually shaping their world and working together in ways that are both fascinating and essential for life, through their root exudates. So, the next time when you take a walk through a garden or forest, remember that beneath your feet, plants are engaged in their own version of a silent, yet remarkably complex, conversation.

-Afrah Fathima S (22PBB47)

#### The Little Weed

On a rainy day, a tiny plant germinated from the soil. It was short and slender, with no flowers and appearing in various shades of green. It grew among tall plants with vibrant, colorful flowers and aromatic leaves. The common people named it "weed," meaning unwanted or undervalued. They even believed that the weed hindered the growth of other desirable, flower-bearing plants, so they often uprooted any weed that grew in that particular field.

The weed was treated as a disgusting being and looked down upon by the other tall plants because of its dull appearance. It felt upset and thought it had no purpose in life and was useless.

Many seasons passed, yet the weed remained the same. One day, a man with a magnifying glass passed by the field. He suddenly began paying close attention to the tiny plant. His eyes widened in astonishment, and he exclaimed, "Alas! I found it!"

People gathered around the field, confused to see this man rejoicing over an unattractive, undesirable plant. One person from the crowd asked, "Sir, who are you? Why are you so overwhelmed? It's just a small weed."

"Only a weed...," he whispered. Claiming to be a botanist with 30 years of experience, he explained that this tiny plant, though called a weed, had significant medicinal value. He added, "This is a type of weed with incredible potential to cure all kinds of skin diseases." He also noted that weeds play an important role in enriching soil fertility.

"Unbelievable!" muttered the crowd.

The weed, once unwanted and without purpose, had become a valuable plant with a purpose.

MORAL: Every single thing created by God has a unique purpose. We need to embrace ourselves so that we can find strength in our weaknesses.

-Abinisha L P (22PBB02)

#### The Rainbow in your Storm

If someone says, "I promise that I will be the rainbow in your storm," tell them "GOODBYE." All we expect during a storm is a small shelter and comfort to protect us. What use is a rainbow that appears at the end if we get lost during the storm? A rainbow then is of no use. Similarly, while the Freesia corymbosa flowers, with their bright colors, symbolize love and are considered beautiful, the Manila tamarind (Pithecellobium dulce) trees, though not visually appealing, protect us from early diseases like tuberculosis and provide us with fruits and shade necessary for our survival.

-Priyasri M (22PBB30)

#### **Kingdom Plantae**

Kingdom Plantae cultivates countless calibres in hominids. One exceptional calibre of plants is that they grow through what they go through. They do not wilt easily upon the incoming of unsought penetrations rather develop copious mechanisms to counterattack them.

These unsought penetrations are common in humans/hominids also. These include stress, failure, heartbreaks, etc. These invasions can easily cause man to wilt as humans/hominids remain seedlings at heart for their entire lives, unlike plants. Some seedlings use up their fragments and regenerate while some remain fragmented. The key to bouncing back is to pray and be patient as Prayer and patience persist as the root and shoot system of a seedling.

In conclusion, when the root and shoot theories of a seedling is in apple pie order toppling doesn't matter until you topple as a seed.

-Aafiya Fathima Z A (23PBB01)

### Loetry Macramé

#### A Seed from a Rosehip

As young she is she was buried in the dark, Grow and spark Was the only way out. She shivered and froze from the anguish of cold. Her skin tore apart Emerged!! the radicle braggart. It grew deep and thick telling her unknown bravery. The plumule of life grew out of her into a green lady Of Freedom. In a garden full of foes She was the prettiest rose Crowned in her petals Of deep red velvets. Freedom is no pretty Neither it comes from pitty. Break and decompose Like a SEED FROM A ROSEHIP. Grow and bloom Into a ROSE OF FREEDOM.

-Olivia Karenhap Fonceca (22PBB28)

#### **The Botanist**

We are flowers to bloom
To acquire the nature's throne
We are seeds to grow;
And are not weeds to throw
We have roots to hold nature,
for the sake to protect the future
Planting Seed is to believe in
tomorrow and so we follow
Grow together and thrive together
is our policy...
We plant trees to be pollution
free

#### **The Brighest Flame**

CRACKLE Mesmerising sway, Never to fray, An artistic glow, A tantalising show. FIRE Let the sparks fly, Fierce, doesn't shy. Hypnotising blend, A merciless end. ASH Flickering, so unsure, Intentions, only pure, Majestic, those flames, Humbles those shames. **PURITY** Warmth is to life, Spirit is to living, Death, away by a thought and a knife, Get giving. Be the fire, Reach for the higher. Be the strongest flame you can be.

-Lakshana R H (21PBB18)

02 and water are Elixirs
and we ought to save it in better
We are the queen's who make the
world Green& clean, by
changing the gene
We are environmentalists in
nature
And botanists in future
We are resistant to anything
And are persistent in our doing...
And so BOTANIST we say

-Saipraneetha S R (23PBB38)

#### **Remembering the Rain**

It was the best of times It was the worst of times. When the silver clouds Unravel their folds I know you are coming. Drop by drop on the ground you land. I wonder, if it's you or my tears That reach first. As pleasant as you seem You are salty with my tears As light as you are You carry away with you My heavy thoughts. Was it the best of time? Or the worst of time When I was completely drenched into you? I don't know. All I know is It was the best time with you And the worst without you.

-Olivia Karenhap Fonceca (22PBB28)

#### The Final Goodbye

In the tapestry of time, our paths entwine, Through joys and sorrows, we've defined. As we bid farewell, hearts heavy, yet true, Senior's legacy, forever in view.

-Mrithula B L (22PBB26)

#### A Dawn among the Trees

The leaves awaken, a vibrant green,
Nature's canvas, a serene scene.
Where sunlight dances and the shadows creep,
It is the quiet dawn of a forest deep.

It's the town of trees, where they live at ease,
A lover's sigh, a gentle breeze,
A language known to the birds and the bees.

It carries tales of mountain snow, ancient trees that have watch it flow, where the mountains stand tall, despite the shocks, As the water flows through the rocks.

The opulence of reds, yellows and blues, It's the blooming of flowers in unruly hues. In every leaf, in every stone, In every wave a life is known.

-Afrah Fathima S (22PBB47)

#### <u>விதை மரம் ஆகும் ஒரு கதை</u>

கடலிலிருந்து ஆவியாய் மாறி மேலே செல்லும் நீர் ஆவிகள் எல்லாம் முத்துக்களாய் கார் மேகத்துக்குள் ஒளிந்து கொண்டது...

கோபம் கொண்ட கார் மேகங்கள் முத்துக்களை பொழிய ஒவ்வொரு முத்தும் மண்ணில் விழுந்து சிதறி நிலத்தடி நீரை நோக்கி ஓடியது..

அப்படி சிதறிய முத்துக்கள் எல்லாம் என்றோ ஒரு நாள் பறவை இடம் இருந்து தவறிய விதைகளுக்கு உயிர் கொடுத்தது...

உயிர் பெற்ற விதைகள் துளிர்விட....

துளிர்வித்த விதைகளை பற்களுக்கு இடையிலும் கால்களுக்கு நடுவிலும் நசுக்கியது கால்நடைகள்..

கொட்டும் அருவியில் இருந்து சிதறிய நீர் துளி போல் தப்பித்த விதைகள் செடியாய் மாறியது

குரங்கின் கையில் பூமாலை ஆகாமல்... பன்றி இடமிருந்து தன் வேர்களை காத்து... மயிலின் அழகில் மடியாமல்... ஆட்டின் கழுத்து உயரத்திலிருந்து தப்பித்து... மாட்டிடம் மாட்டாமல்.. ஒரு சிறிய செடி தன் குழந்தை பருவத்தை கடக்க பெரும்பாடு பட்டது...

இது பத்தாது என்று பாக்டீரியா, வைரஸ் , பங்கை போன்ற கண்களுக்கு தெரியாத அணுக்கள் எல்லாம் காற்றில் படையெடுத்து வர..

தன்னுடைய உடலியல் மாற்றத்தைக் கொண்டு அப்படை இடமிருந்து தன்னை காத்துக் கொண்டது அந்த சிறிய செடி....

இயற்கையின் சினத்தில் பிறந்து இயற்கையின் சீற்றத்தைக் கடந்து இரண்டாம் நிலை வளர்ச்சி அடைவதற்குள் அப்பப்பா பெரும் போராட்டம்...

அதன்பின் போராட்டம் இல்லையா என்றால் எப்படி இல்லாமல் இருக்கும்...

இரண்டாம் நிலை வளர்ச்சி வந்தவுடன் தேவையான அளவு நீரை சேகரித்து உணவை பதுக்கி வறட்சி காலத்திலும் தன்னை தானே காப்பாற்றிக் கொள்ளும் வலிமை பெற்று..... செடி மரமாக மாறியது.. மனிதனுக்கும் மரத்திற்கும் நூல் அளவு வேறுபாடு தான் ஆறறிவு உடைய மனிதன் தன்னைத் தவிர அனைவரையும் அழிப்பான் ஓரறிவு உடைய மரம் தன்னைத் இழந்தும் மற்றவரை காக்கும்...

ஆண்டுகள் பல கடந்து பல பறவைகளுக்கு உறைவிடமாகும்...தன்னை கொள்ள நினைக்கும் மனிதனுக்கே நிழலையும், உணவையும் தந்து...அவன் சுவாசிக்க அவன் அசுத்தம் செய்த காற்றை சுத்தம் செய்து தரும் அப்பாவி இந்த மரம்...

இருப்பினும் மனிதனின் குணம் மாறாதே...

தன் தேவைக்காக எதையும் செய்யும் மனிதன்... வாய் பேச முடியாத மரத்தை விடுவானா என்ன...

இவ்வளவு போராட்டத்தை பார்த்து வளர்ந்து வரும் மரத்தை ஒரு சில மணி நேரத்தில் வெட்டி வீழ்த்தி விடுகிறான் மனிதன்.... அனுபவித்த போராட்டத்திற்கு எந்த பொருளும் இன்றி மண்ணில் சரிந்தது அந்த பெரிய மரம்..

சுயநலமான மனிதர்களே பாருங்கள் ஒரு மரம் தன் வாழ்வில் மரமாக எத்தனை போராட்டத்தை பார்க்கிறது என்று...

அதன் போராட்டத்தின் முன்பு மனித வாழ்வின் போராட்டம் ஒன்றுமே அல்ல...

நீங்கள் மரத்தை நட கூட வேண்டாம் அளிக்காமல் இருங்கள் அது போதும்.... இயற்கை தானாகவே தன்னை புதுப்பித்துக் கொள்ளும்....

— மஞ்சுளா அ (22PBB19)

#### <u>தாவரம்</u>

இயற்கை அன்னையின் மடியில் தவழும் செல்லப் பிள்ளையே ! தாவரமே! மனிதகுலத்திற்கு நீ உணவானாய்! மருந்தானாய்! உயிரானாய்! உற்ற துணையானாய்!

மழலையான உன்னை மண்ணிலே புதைத்தார்களா? - இல்லையே சிதைத்தார்களே! நீ வளருகின்ற பருவத்தில் உன் வேர்களை கருவறுத்தார்களே! நீ மறந்தாயோ? உன்னை நோகடித்த மனிதர்கள் மேல் ஏன் இந்த பாசம்? நான் அறியவில்லையே!

> மனிதன் பிறக்கும் முன்னே இறைவன் கொடுத்த வரம் நீ! ஆகாய விரிவும் தலைவணங்கும் தென்றலும் உன் புகழ் பாடும்!

மனித இனம் மறந்துப் போன உயிர் மூச்சே! உன்னை என் அன்பெனும் நீரில் நனைத்து என் மனமெனும் மண்ணில் புதைத்து தோழியாய் அரவணைத்து வளர்த்திட இதோ! நான் உன்னை தேடி

— அபினிஷா லா. பி. (22PBB02)

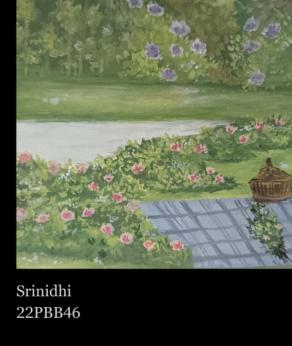
ஓடி வருகின்றேன்.

#### **Creative Corner**

## Behind the brush



Thahera C 21PBB32





Abinisha L P 22PBB02



Alekya 21PBB01

## Photo Bloom



Bhavadharini 21PBB49



Saindhavi S R 23PBB37



Lakshana R H 21PBB18



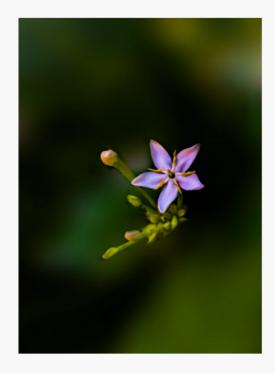
Ananya Menon 22PBB05



Keziah Suganthi M 22PBB14



Abinaya S 22PBB01



Abinaya S 22PBB01



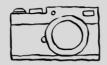
Vijitha Rachel D 23PBB47



Abinaya S 22PBB01



Divya R 21PBB10





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