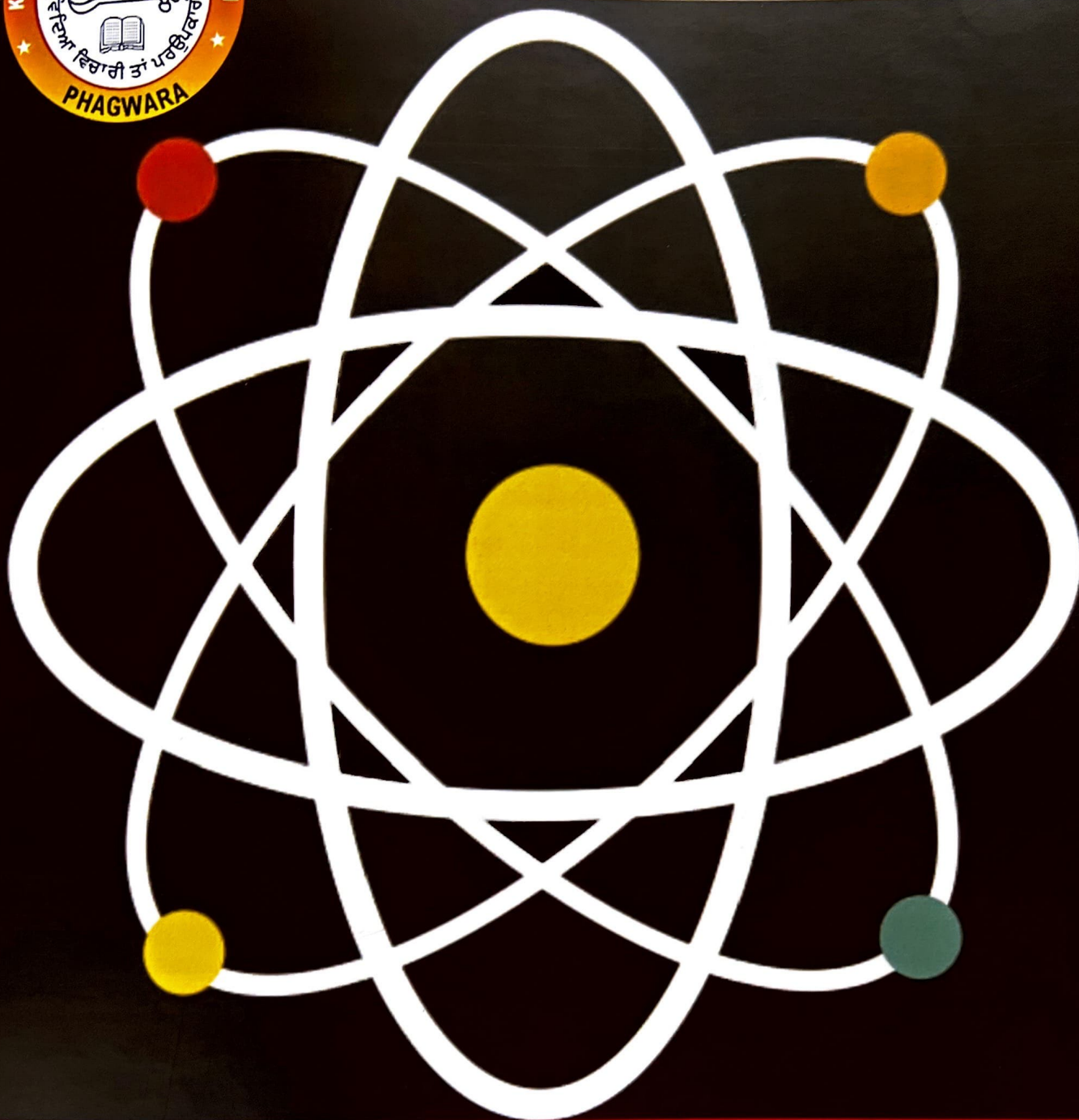




THE SCIENCE SPIN

An Annual Newsletter (Volume-4)

2018-19



DEPARTMENT OF SCIENCES

KAMLA NEHRU COLLEGE FOR WOMEN

Re-accredited with Grade "A" (3.55/4.00CGPA) by NAAC, Bangalore

College with Potential for Excellence by UGC, New Delhi.

Star College Status in Sciences by DBT, New Delhi



Smt. Kamala Nehru
(1899-1936)

Our Vision

To blossom as one of the
Leading and Most Preferred
Institutes with Earnest endeavors to
enhance its quality in imparting excellent
education-vocational & competitive
to the highest academic standards
with full devotion and dedication.

Our Mission

To Nurture, Nourish and Chisel
our girls into a host o Well-shaped
individuals-Self-reliant,
Self-sufficient and Responsible Citizens,
leading to the upliftment of the society.

“Science is not about why..... It's about why not”?

DEPARTMENT OF SCIENCES

The department of sciences was established in the year 2004 with the onset of its first degree course in B.Sc Computer science. Since then, the department has grown immense fully and is serving as a significant part of the institute. Presently the department is offering bachelor courses in Medical and Non – Medical with an additional course in Biotechnology (Certificate, Diploma and Advance Diploma) for the three consecutive years. With the passage of time the department has grown itself not only in the field of academics but also in various research programs.

Different Courses offered by the Department

- B.Sc. in Medical
- B.Sc. in Non-Medical
- B.Sc. in Computer Science
- Add on course in Biotechnology (Certificate, Diploma and Advanced Diploma)

“STAR COLLEGE STATUS”

Adding another feather in its cap, Department of Sciences has brought the laurel for the college to be conferred with “Star College Status” in sciences by DBT, New Delhi in the session 2016-2017. Under this scheme, department has received magnanimous grant for a consecutive period of three years.

The department will utilize this grant for the constructive missions like upliftment of basic infrastructure including:

- Class Rooms
- Laboratories
- Botanical Garden
- Vermiculture Unit
- Green House

Under this scheme various new projects will be initiated:

- Establishment of Zoological Museum
- Plant Herbarium
- Departmental Library and Computer Lab

FACULTY OF SCIENCE DEPARTMENT

CHEMISTRY



Name: Dr. Pratibha Paliwal
Designation: Assistant Professor (Head of the Department)
Qualification: M.Sc., Ph.D (Chemistry).
Area of Specialization: Organometallic Chemistry
Publications: 8 (6-International; 02-National)
Seminars/Conferences/Workshops Attended: 10 (5-International; 5-National)
Email: pratibhasamreen@yahoo.co.in



Name: Ms. Anu Bangar
Designation: Assistant Professor in Chemistry
Qualification: M.Sc. (CSIR-UGC NET qualified)
Area of Specialization: Spectroscopy
Publications: 01(International)
Seminars/Conferences/Workshops Attended: 1 (International)
Email: anubangar16@gmail.com

BOTANY



Name: Ms. Manvinder Kaur
Designation: Assistant Professor in Botany
Qualification: M.Sc., B.Ed.
Area of Specialization: Arid Zone ecology
Publications: 01 (National)
Seminars/Conferences/Workshops Attended: 03 (01-International, 02-National)
Email: mkmanvinder123@yahoo.com



Name: Dr. Vanita Chahal
Designation: Assistant Professor in Botany
Qualification: M.Sc. (Hons.), M. Phil, Ph.D.
Area of Specialization: Environmental Toxicity, Cytogenetics, Mutagenesis, Pesticide Residue Analysis and Heavy Metal Contamination
Publications: 16 (14-International; 02-National)
Books: 02
Awards and Honors: Young Scientist Award-2014, Emerging Scientist Award-2017
Seminars/Conferences/Workshops Attended: 19 (15-International, 4-National)
Email: vanitachahal@gmail.com

MATHEMATICS



Name: Ms. Priyanka
Designation: Assistant Professor (Mathematics)
Qualification: M.Sc. (Hons.), M.Phil.
Area of Specialization: Differential equation, Algebra
Publications: 01 (International)
Seminars/Conferences/Workshops Attended: 05(01-International, 04-National)
Email: priyankamankhand@gmail.com



Name: Ms. Eisha
Designation: Assistant Professor in (Mathematics)
Qualification: M.Sc.
Area of Specialization: Alebra, Vectors
Seminars/Conferences/Workshops Attended: 01
Email: esharma149@mail.com



PHYSICS

Name: Ms. Nirwinder Kaur
Designation: Assistant Professor in Physics
Qualification: M.Sc. (Hons.)
Area of Specialization: Plasma Physics, Condensed Matter Physics
Publications: 03 (02-International, 01-national)
Seminars/Conferences/Workshops Attended: 06 (02-International, 04-National)
Email: nirwinder@gmail.com



Name: Ms. Priya Sharma
Designation: Assistant Professor in Physics
Qualification: M.Sc., B.Ed.
Area of Specialization: Particle Physics, Condensed Matter Physics
Publications: 01 (International)
Seminars/Conferences/Workshops Attended: 03 (01-International, 02-National)
Email: priya.piu9@gmail.com



ZOOLOGY

Name: Dr. Diana Handa
Designation: Assistant Professor
Qualification: M.Sc. (Hons.), M. Phil, Ph.D.
Area of Specialization: Environmental Toxicity, Cytogenetics, Mutagenesis, Fisheries, Wastewater and Heavy Metal Analysis and histopathology of tissues.
Publications: 12 (09-International; 03-National)
Books: 02
Awards and Honors: Young Scientist Award-2017.
Seminars/Conferences/Workshops Attended: 17 (14-International; 3-National)
Email: diana.handa.jj@gmail.com

**“Science is not only about classroom teaching,
 It's all about the knowledge one can receive from outside world”**

INFRASTRUCTURE

Teaching science is not only confined to classroom teaching, but it is fully based on the exposure of the students that can get outside the classroom. Keeping this in mind the department have different kinds of Labs, Smart classrooms, Botanical garden, Vermiculture, Green house etc where students of the department can get firsthand experience to enhance their knowledge.

(I) Laboratories

The Department consists of well established, fully equipped and modernized laboratories in the fields of Botany, Biotechnology (Tissue culture lab and Instrumentation lab), Zoology, Chemistry and Physics. Various sophisticated equipment include, UV-VIS spectrophotometer, potentiometer and seed germinator. The students make appropriate use of the same and grab unprecedented opportunities for interdisciplinary collaboration.



Botany Lab



Zoology Lab



Tissue Culture Lab



Physics Lab



Chemistry Lab



Optics Lab

(II) SMART CLASS ROOMS

Taking into consideration of the present world of digitalization, the department is promoting digital education among students by using smart classrooms. The staff makes use of this platform by showing different videos and power point presentations related with the different topics of syllabus. These modules make the education more effective and efficient as it holds the attention of students. The students are also in return engrossed in digital training to harness their potential and build confidence.



(III) BOTANICAL GARDEN

The practical knowledge of flora and fauna is imparted to the students through Botanical Garden and Green House. Botanical garden of the department consists of different plant varieties along with some microorganisms. The setup is fully based on the Bentham and Hooker system of classification. It also contains a separate rose garden and cactus garden in which different species of rose and cactus are present. Along with this, it have aquatic pond for the growth of various aquatic plants i.e. hydrophytes and microorganisms. There are various parallel project plans running in the botanical garden:

- Vermiculture unit - In this unit, organic manure is prepared using earth worms, cow dung and various plant litters which are subsequently used in garden and campus lawns to ensure organic farming.
- Vermiwash unit - This unit has been successfully running where bio pesticides are generated and supplied to the plants as alternative to the inorganic fertilizers.
- Preparation of potash alum from waste aluminum foil - The waste aluminium foil of the campus is used to generate potash alum which is used as a toilet cleaner. This chemical is also used in chemistry lab for various experimental purposes.



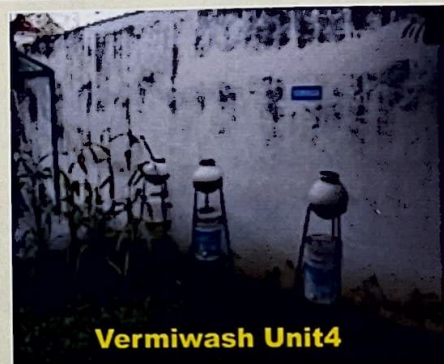
Botanical Garden



Vermiculture Unit



Preparation of Potash Alum



Vermiwash Unit4

(IV) GREEN HOUSE:

Green house of the department allows the growth of those plants which require particular climatic conditions for their growth. Students are assigned to work and maintain the green house and utilize it for the academic curriculum.



Various activities carried out by the department in the Session 2017-2018

Ø Extension Lectures/Workshops Organized:

Apart from the heavy loaded curriculum, extra knowledge is provided to students in the form of various extension lectures and seminars from time to time by the experts belonging from national or international level.

Sr.No	Topic	Field	Name of the expert	Designation
1.	Cancer Care	Zoology and Environmental science	Mr. Kulwant Singh Dhaliwal	Global Ambassador of world cancer care charity society & Save the life. U.K
2.	Probability Distribution	Mathematics	Dr. Loveleen Grover	Associate professor of Mathematics, G.N.D.U Amritsar.
3.	Vedic Mathematics	Mathematics	Mr. Sushil Kumar Kohli	Govt. School



Mr. Kulwant Singh Dhaliwal with college staff and students.



MR. SUSHIL KUMAR KOHLI ADDRESSING LECTURE TO STUDENTS.



Dr. Loveleen Grover with college staff and students.

Ø Co – Curricular activities of Department:

Taking into consideration of student's holistic development the department also motivates the students to participate in inter-college as well as intra-college activities from time to time. All these activities help the students to enhance their knowledge and creativity.

Inter - college competitions:

Sr.No	Place of Visit	Organizing Department	Title	Date
1.	Apeejay College of Fine Arts, Jalandhar	Mathematics	"Mathemania – 2017"	8 th February, 2017
2.	K.M.V College, Jalandhar	Mathematics	"Math – Fest 2017"	1 th March, 2017
3.	Lvallpur Khalsa College, Jalandhar	Chemistry	"Spectrum – 2017"	10 th October, 2017

· Parampreet Kaur of B.Sc (Comp Sci) 5th sem and Neha Dhiman of B.Sc.(Non Med.) 5th sem bagged first prize in power point presentation held at Apeejay College Of Fine Arts, Jalandhar.

· Akshi Jain of B.sc III (Med) year won first prize in pot decoration competition held at Khalsa College, Jalandhar.

Intra - college competitions:



Mathemania organised by the department of Mathematics.

GREEN SQUAD

Green Squad is a team of B.Sc medical (Botany) students who keeps regular check to botanical garden as well as to the lawns of college for the maintenance of plants. They not only preserve the old plants but also check the cleanliness of lawns and whole college campus. Moreover, ecofriendly plants have been planted like hyper accumulators and bioremediators.

Teacher Incharges: Dr. Vanita Chahal, Ms. Tanveer Kaur

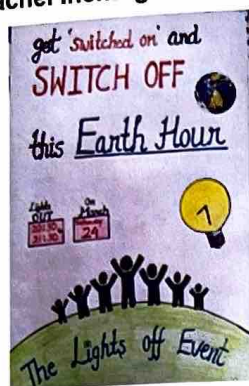


THE TEAM "GREEN SQUAD"

ENERGY SQUAD:

Energy Squad is an another team of B.Sc Non Medical (Physics) students who promotes the awareness of energy usage and also motivates others on energy wastage issues. The team makes regular visits to all college premises and ensures zero wastage of energy. A new project has been initiated by the "Energy Squad" team in support of conservation where drained water is collected and reused for secondary purposes and for watering the plants. The students also celebrate Earth Hour to spread awareness for the preservation of electrical energy.

Teacher Incharges: Ms. Nirwinder Kaur, Ms. Priya Sharma



Educational Trips/Industrial Visits:

Educational trips/Industrial visits plays a significant role to actually observe and analyze the things in reality. Taking this thing into account the department organizes educational trips/Industrial visits to various Institutes/universities.

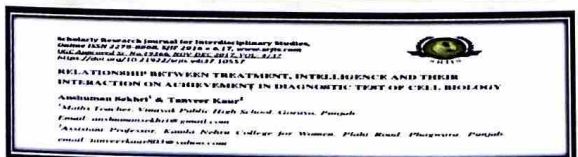
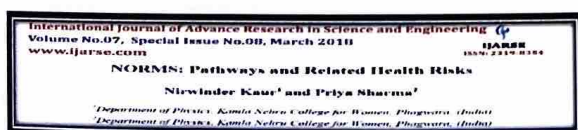
Sr.No	Place of Visit	Class Involved	Date
1.	Punjab University, Chandigarh	B.Sc (Medical & Non – Medical) Sem I, III, V	3 November, 2017



**Educational trip to
Punjab University,
Chandigarh**



Research Publications By Teachers:



Students got Malkit Singh Ragbotra Blood Bank scholarships:

Sr. No.	Name	Class	Percentage
1.	Sunita Devi	B.Sc. (Med) Sem I	82%
2.	Gurleen Kaur	Do	81.3%
3.	Nisha	Do	86%
4.	Jaspreet Kaur	Do	81%
5.	Jasdeep Kaur	Do	93.7%
6.	Amandeep Kaur	Do	94.67%
7.	Namita Sharma	Do	80.4%

Prides of the Department

Sr. No.	Name	Class	Merit/Distinction/Position
1.	Anu	B.Sc.- III (Non Medical)	Merit (12 th position in university)
2.	Amandeep Kaur	B.Sc.- I (Non Medical)	Merit (4 th in university)
3.	Muskaan	B.Sc.- II.(Non-Medical)	1 st in class
4.	Anjali	B.Sc.- II (Medical)	1 st in class



Anu



Amandeep

Students Enrolled For Higher Studies in different Universities

Sr. No.	Name	Class	Institute
1.	Meenakshi	M.Sc. (Hons.) Zoology	D.A. V University

Student's Placement

Sr. No.	Name	Class	Placement
1.	Harleen Kaur	B.sc III (Non Medical)	WIPRO
2.	Jaspreet Kaur	B.sc III (Non Medical) I	WIPRO

Celebration of Important Days

- "Van Mahotsav" in the beginning of rainy season by planting trees in and outside the college premises.
- "Breast Feeding Week" by enlightening the students through informative talks by the team of esteemed experts.
- "Cancer Day" by imparting informative talks and intra departmental competitions.
- "Science Day" by hosting different scientific activities.
- "Ozone Day" by fancy dress and poster making competitions.

We are Unique.....

- Smart class room for effective teaching and training
- Extension lectures and Workshops by experts to enlighten our students
- Educational trips/ collection trips to universities and research institutes to provide hand on training to our students
- Research projects by the students to engross them in research
- Class seminars by students via power point presentations
- Regular tests/assignments throughout the course
- Well-equipped laboratories with modern facilities
- Add-on vocational courses
- Competitions for students to motivate them apart from academics

Miles to go.....

- Establishment of Zoological Museum
- Plant Herbarium
- Departmental Library
- Computer Lab

Department of Sciences in News

पॉट डेकोरेशन में आक्षी को पहला स्थान

संवाद सहयोगी, फगवाड़ा : कमला नेहरू कॉलेज फॉर वुमेन में मेडिकल की छात्रा आक्षी जैन ने आन द स्पोर्ट पॉट डेकोरेशन प्रतियोगिता में भाग लिया जो कि लाल खालसा कॉलेज के कैमिस्ट्री के विभाग की ओर से आयोजित किया गया था और इस प्रतियोगिता में पहला स्थान हासिल किया।

अक्षी जन आन द स्पोर्ट डेकोरेशन मुकाबले में प्रथम

प्रतियोगिता में करीब 33 विद्यार्थियों ने लिया भाग, प्रिंसिपल ने किया सम्मान

किरण शर्मा



कमला नेहरू कॉलेज की छात्रा परीक्षा परिणामों में शानदार

फगवाड़ा, 21 जुलाई (हनेश) : कमला नेहरू कॉलेज फॉर वुमेन फगवाड़ा की परम्परा कायम रखते हुए गुरु नानक देव विश्वविद्यालय अमृतसर द्वारा आयोजित परीक्षाओं में फिर से सफलता के झंडे गाड़े। यहाँ बी.ए. चतुर्थ सैमेस्टर की नवजात रिम्पी, रमनदीप, तनवीर, रमनदीप और गुरप्रीत मैरिट में रही। वहीं बी.ए. मेडिकल चतुर्थ सैमेस्टर में भी शानदार प्रदर्शन किया।



डॉ. विनीता को इमर्जिंग व डॉ. डायना को युवा साइंटिस्ट अवार्ड



फॉर वुमेन के साइंस विभाग के प्रो. साइंटिस्ट एवार्ड 2017 और डॉ. डायना को युवा साइंटिस्ट अवार्ड से नवाजा गया। सम्मेलन का आयोजन आधुनिक जीव विज्ञान और मेडिकल से करवाया गया। प्रिंसिपल डॉ. शशिकांतनाथ दी।

फगवाड़ा | रांची, झारखंड में तीन दिवसीय अंतरराष्ट्रीय सम्मेलन भूमण्डल दृश्य योजना, जीवन विज्ञान, कृषि वर्ग, परिचर्या, चिकित्सा अनुसंधान, ग्रामीण शहरीय लोक का आयोजन किया गया। इसमें कमला नेहरू कॉलेज का प्रतिनिधित्व डॉ. विनीता ने किया।



डॉ. विनीता अवार्ड से सम्मानित

संस. फगवाड़ा : रांची, झारखंड में तीन दिवसीय अंतरराष्ट्रीय सम्मेलन भूमण्डल दृश्य योजना, जीवन विज्ञान, कृषि वर्ग, परिचर्या, चिकित्सा अनुसंधान, ग्रामीण शहरीय लोक का आयोजन किया गया। इसमें कमला नेहरू कॉलेज का प्रतिनिधित्व डॉ. विनीता ने किया। डॉ. विनीता अवार्ड से सम्मानित की गईं। अंतरराष्ट्रीय अल्पकालीन सम्मेलन आधुनिक जीव विज्ञान और मेडिकल शैक्षणिक ट्रस्ट रांची की ओर से करवाया गया। कॉलेज प्रचार्य डॉ. किरण वालिया प्रचारकों को शुभकामनाएं देते हैं।

आन द स्पोर्ट पॉट डेकोरेशन प्रतियोगिता में अक्शी जैन फर्स्ट

फगवाड़ा | कमला नेहरू कॉलेज फॉर वुमेन की मेडिकल की छात्रा अक्शी जैन (बीएससी) ने आन द स्पोर्ट पॉट डेकोरेशन प्रतियोगिता में पहला स्थान हासिल किया है। प्रतियोगिता लालसा कॉलेज के कैमिस्ट्री के पीजी विभाग आयोजित की गई थी। अक्शी जैन ने प्रतियोगिता में छात्रों को पराजित कर जीत दर्ज की। कमला नेहरू कॉलेज फॉर वुमेन कॉलेज की प्रिंसिपल डॉ. विनीता ने विजेता छात्रा को बधाई दी है।

प्रोबेसिलिटी टू डिस्ट्रीब्यूशन विषय पर विचार साझा किए



फगवाड़ा | कमला नेहरू कॉलेज फॉर वुमेन फगवाड़ा के साइंस विभाग की ओर से एकसत्रेशन लेक्चर करवाया गया। यह लेक्चर गणित विषय पर आयोजित था। इसमें गुरु नानक देव यूनिवर्सिटी के प्रो. लक्ष्मीन कुमार शर्मा बतौर मुख्य अतिथि पहुंचे। उन्होंने छात्रों से प्रोबेसिलिटी टू डिस्ट्रीब्यूशन विषय पर अपने विचार साझा किए। इस मौके पर छात्रों ने सवाल और पोस्टर भी बनाए। छात्रों ने प्रो. शर्मा से सफलता भी की। कॉलेज प्रिंसिपल डॉ. किरण वालिया ने आए हुए मुख्य अतिथि का स्वागत किया और साइंस विभाग की भविष्य में इस तरह के आयोजन करने का इरादा जताया।

THE SCIENCE SPIN Volume-4
An Annual Newsletter – (2018-19)



DEPARTMENT OF SCIENCES

KAMLA NEHRU COLLEGE FOR WOMEN

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