Two days workshop on Indian Mathematics
September 13, 2019
 SEPTEMBER 13-14, 2019

ORGANISED
BY
THE MATHEMATICAL SOCIETY DEPARTMENT OF MATHEMATICS CENTRAL UNIVERSITY OF HIMACHAL PRADESH, TAB-SHAHPUR

## REPORT OF THE WORKSHOP

Department of Mathematics is organized Two days workshop on INDIAN MATHEMATICS w.e.f. September 13, 2019 to September 14, 2019 for the students of Mathematics. The resource persons for this workshop were:

1. Professor Krishna murthi Rama Subramanian, Cell for the Indian Science and Technology in Sanskrit, Department of Humanities and Social Sciences, Indian Institute of Technology Bombay, India
2. Professor Clemency Montelle School of Mathematics and Statistics, University of Canterbury, Christchurch, New Zealand

The basic purpose of this program was to acquaint the students with the evolution of mathematical concepts in ancient India, the contributions of Indian mathematicians in ancient/Vedic mathematical and astronomical fields, and to connect them with the modern aspects of mathematics. It is also expected to obtain measures for the collection of such literature and discuss pertinent future research problems in the history of Indian mathematics. This workshop is very useful in linking the ancient/Vedic Indian mathematical contributions with modern mathematics, and in the exploration of Indian mathematical documents that have never been studied.

The schedule of the program was as under:
September 13, 2019
Inaugural: 09:00 AM - 09:30 AM
Mathematical Rangoli - 09:30 AM - 10:00 AM
Model/Poster presentation -10:00am - 11:00 AM
Tea Break - 11:00 AM to 11:15 AM
PI-DIGIT contest - 11:15 am to 12:15 PM
Refreshment Break - 12:15 PM to 01:00 PM
Lecture 1: KR - An overview of Indian mathematics and introduction to Śsulbasūtras
(01:00 PM - 02:30 PM)
Lecture 2: CM - Geometrical construction in the Śulbasūtras (02:30 PM - 03:30 PM)
Tea Break: 03:30 PM - 03:45 PM
Lecture 3: KR - The Mathematics of Poetry: Pingala's Chandassastra (03:45 PM - 05:15 PM)

September 14, 2019

Lecture 4: KR - Mathematics in poetry \& Combinatorics (09:00 AM - 10:30 AM)
Lecture 5: CM - Selected examples of mathematical poetry (10:30 AM - 11:30 AM)
Tea Break: 11:30 AM - 11:45 AM
Lecture 6: KR - Study of series in India (11:.45 AM - 01:15 PM)
Lunch Break: 01:15 PM - 02.00 PM
Lecture 7: CM - Introduction to trigonometry in India (02:00 PM - 03:00 PM)
Tea Break: 03:00-03:15 PM
Lecture 8: KR - The computation of Sines (03:15 PM - 04:15 PM)
Valedictory: 04:15 PM - 05:15 PM

## MEDIA COVERAGE



Attendance sheet for the two days workshop on INDIAN MATHEMATICS September 13-14, 2019

Pre-Lunch Session
Dated:14-09-2019

| $\begin{gathered} \mathrm{Sr} . \\ \mathrm{No.} \\ \hline \end{gathered}$ | Roll No. | Name of the Candidate | Present/Absent |
| :---: | :---: | :---: | :---: |
| 1 | CUHP18IAM01 | ABHINANDAN | P |
| 2 | CUHP18IAM02 | AMIT | P |
| 3 | CUHP18IAM03 | ANITA | $p$ |
| 4 | CUHP18IAM04 | ANKIT CHAUHAN | $p$ |
| 5 | CUHP18IAM05 | ANKUSH THAKUR | P |
| 6 | CUHP18IAM06 | ANUJA | $P$ |
| 7 | CUHP18IAM07 | BHARTI SHARMA | $P$ |
| 8 | CUHP18IAM08 | HINA MALIK | $P$ |
| 9 | CUHP18IAM09 | INDERJEET NEGI | $P$ |
| 10 | CUHP18IAM10 | KAMAL KANT | $P$ |
| 11 | CUHP18IAM12 | MANISHA CHOUDHARY |  |
| 12 | CUHP18IAM13 | MANISHA THAKUR | P |
| 13 | CUHP18IAM14 | MANJEET SINGH | P |
| 14 | CUHP18IAM15 | MONIKA THAKUR | $P$ |
| 15 | CUHP18IAM16 | NIKITA | P |
| 16 | CUHP18IAM17 | PANKAI SHUKLA | $p$ |
| 17 | CUHP18IAM18 | POOJA | P |
| 18 | CUHP18IAM19 | PRIYANKA DEVI | P |
| 19 | CUHP18IAM21 | SHIVANI THAKUR | P |
| 20 | CUHP18IAM22 | SHRI KISHAN YADAV |  |
| 21 | CUHP18IAM23 | SHUBHAM BHATIA | P |
| 22 | CUHP18IAM24 | SONALI | P |
| 23 | CUHP18IAM25 | SUKANT AWASTHI | $P$ |
| 24 | CUHP18IAM26 | SUNIL KUMAR | P |
| 25 | CUHP181AM27 | TAMANNA | P |
| 26 | CUHP181AM28 | VIJAY | P |
| 27 | CUHP18IAM29 | VIKRAM SINGH | $P$ |
| 28 | CUHP18IAM30 | VIRENDER KUMAR | P |
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| Sr. <br> No. | Roll No. ${ }^{\text {N }}$ | Name of the Candidate | Present/Absent |
| :---: | :---: | :---: | :---: |
| 1 | CUHP191AM01 A | AKANKSHA THAKUR | $P$ |
| 2 | CUHP19IAM02 A | ANIL KUMAR | $P$ |
| 3 | CUHP19IAM03 A | ANU BALA | $P$ |
| 4 | CUHP19IAM04 A | ARCHIT SHARMA | $P$ |
| 5 | CUHP19IAM05 D | DEEPIKA | $\cdots$ |
| 6 | CUHP19IAM06 GA | GARIMA THAKUR | $P$ |
| 7 | CUHP19IAM07 K | KAIAL | $?$ |
| 8 | CUHP19IAM08 | KAMAL KISHOR | 1 |
| 9 | CUHP19IAM09 | KASHIK SHARMA | $p$ |
| 10 | CUHP19IAM10 | LAVLESH KUMAR | $p$ |
| 11 | CUHP19IAM11 | MAMTA DEVI | $P$ |
| 12 | CUHP19IAM12 | MANISHA | $\bigcirc$ |
| 13 | CUHP19IAM13 | MANISHA SHARMA | $P$ |
| 14 | CUHP19IAM14 | NITISH SHARMA | $P$ |
| 15 | CUHP19IAM15 | PRAVEEN KUMAR | $p$ |
| 16 | CUHP19IAM16 | PRIYANKA | $P$ |
| 17 | CUHP19IAM17 | PRIYANKA THAKUR | $P$ |
| 18 | CUHP19IAM18 | RAKESH KUMAR | $P$ |
| 19 | CUHP19IAM19 | SACHIN RANA | $P$ |
| 20 | CUHP19IAM20 | SAHIL CHAUDHARY | $p$ |
| 21 | CUHP19IAM21 | SNEHA YADAV | $p$ |
| 22 | CUHP191AM22 | 2 SOURAV | $p$ |
| 23 | CUHP19IAM23 | 3 SOURAV | $P$ |
| 24 | CUHP19IAM24 | 4 SUNIL PRAJAPAT |  |
| 25 | CUHP191AM25 | 5 SUNNY KUMAR | $p$ |
| 26 | CUHP19IAM26 | 6 UDIPTA PHUKON | P |
| 27 | CUHP19IAM27 | 7 VIKRANT DHARWAL | $P$ |
| 28 | CUHP19IAM28 | 8 VISHAB KAUNDAL | $P$ |
| 29 | CUHP19IAM29 | 9 VISHAL | $P$ |
| 30 | CUHP19IAM30 | 0 VISHVENDRA SINGH | $p$ |
| 31 | - CUHP19IAM31 | 1 MANU BALA | $\beta$ |
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MATHEMATICS September 13-14, 2019
Post-Lunch Session
Dated:14-09-2019

| Sr . <br> No. | Roll No. | Name of the Candidate | Present/Absent |
| :---: | :---: | :---: | :---: |
| 1 | CUHP18IAM01 | ABHINANDAN | $P$ |
| 2 | CUHP18IAM02 | AMIT | $p$ |
| 3 | CUHP18IAM03 | ANITA | $p$ |
| 4 | CUHP18IAM04 | ANKIT CHAUHAN | $P$ |
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| 7 | CUHP18IAM07 | BHARTI SHARMA | $p$ |
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| 10 | CUHP18IAM10 | KAMAL KANT | P |
| 11 | CUHP18IAM12 | MANISHA CHOUDHARY |  |
| 12 | CUHP18IAM13 | MANISHA THAKUR | $P$ |
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| 14 | CUHP18IAM15 | MONIKA THAKUR | ? |
| 15 | CUHP18IAM16 | NIKITA | $p$ |
| 16 | CUHP18IAM17 | PANKAJ SHUKLA | $P$ |
| 17 | CUHP18IAM18 | POOJA | P |
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| 19 | CUHP18IAM21 | SHIVANI THAKUR | $p$ |
| 20 | CUHP18IAM22 | SHRI KISHAN YADAV |  |
| 21 | CUHP18IAM23 | SHUBHAM BHATIA | $P$ |
| 22 | CUHP18IAM24 | SONALI | $P$ |
| 23 | CUHP18IAM25 | SUKANT AWASTHI | $p$ |
| 24 | CUHP18IAM26 | SUNIL KUMAR | $p$ |
| 25 | CUHP18IAM27 | TAMANNA | $P$ |
| 26 | CUHP18IAM28 | VIJAY | $P$ |
| 27 | CUHP18IAM29 | VIKRAM SINGH | $p$ |
| 28 | CUHP18IAM30 | VIRENDER KUMAR | 19 |
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## Attendance sheet for the two days workshop on INDIAN MATHEMATICS September 13-14, 2019

## Post-Lunch Session

Dated:14-09-2019

| Sr . No. | Roll No. | Name of the Candidate | Present/Absent |
| :---: | :---: | :---: | :---: |
| 1 | CUHP19IAM01 | AKANKSHA THAKUR | $\Gamma^{\circ}$ |
| 2 | CUHP191AM02 | ANIL KUMAR | $?$ |
| 3 | CUHP191AM03 | ANU BALA | 1) |
| 4 | CUHP19IAM04 | ARCHIT SHARMA | $P$ |
| 5 | CUHP19IAM05 | DEEPIKA | ? |
| 6 | CUHP19IAM06 | GARIMA THAKUR | ? |
| 7 | CUHP19IAM07 | KAJAL | $P$ |
| 8 | CUHP19IAM08 | KAMAL KISHOR | $?$ |
| 9 | CUHP191AM09 | KASHIK SHARMA | $p$ |
| 10 | CUHP19IAM10 | LAVLESH KUMAR | D |
| 11 | CUHP19IAM11 | MAMTA DEVI | $p$ |
| 12 | CUHP19IAM12 | MANISHA | $\bigcirc$ |
| 13 | CUHP19IAM13 | MANISHA SHARMA | $P$ |
| 14 | CUHP19IAM14 | NITISH SHARMA | $p$ |
| 15 | CUHP19IAM15 | PRAVEEN KUMAR | $?$ |
| 16 | CUHP19IAM16 | PRIYANKA | $p$ |
| 17 | CUHP19IAM17 | PRIYANKA THAKUR | $P$ |
| 18 | CUHP19IAM18 | RAKESH KUMAR | $P$ |
| 19 | CUHP19IAM19 | SACHIN RANA | ? |
| 20 | CUHP19IAM20 | SAHIL CHAUDHARY | $p$ |
| 21 | CUHP19IAM21 | SNEHA YADAV | $p$ |
| 22 | CUHP19IAM22 | SOURAV | P |
| 23 | CUHP19IAM23 | SOURAV | 17 |
| 24 | CUHP19IAM24 | SUNIL PRAJAPAT | $p$ |
| 25 | CUHP19IAM25 | 5 SUNNY KUMAR | $P$ |
| 26 | CUHP19IAM26 | UDIPTA PHUKON | ? |
| 27 | CUHP19IAM27 | VIKRANT DHARWAL | $?$ |
| 28 | CUHP19IAM28 | VISHAB KAUNDAL | $\dagger$ |
| 29 | CUHP19IAM29 | VISHAL | $1)$ |
| 30 | CUHP19IAM30 | VISHVENDRA SINGH | $p$ |
| 31 | CUHP191AM31 | 1 MANU BALA | $P$ |



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| 1 | CUHP18IAM01 | ABHINANDAN | P |
| 2 | CUHP18IAM02 | AMIT | P |
| 3 | CUHP18IAM03 | ANITA | $P$ |
| 4 | CUHP18IAM04 | ANKIT CHAUHAN | $P$ |
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| 7 | CUHP18IAM07 | BHARTI SHARMA | $P$ |
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| 9 | CUHP18IAM09 | INDERJEET NEGI | $p$ |
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| 1 | CUHP19IAM01 | AKANKSHA THAKUR | 7 |
| 2 | CUHP191AM02 | ANIL KUMAR | $\square$ |
| 3 | CUHP19IAM03 | ANU BALA | 0 |
| 4 | CUHP19IAM04 | ARCHIT SHARMA | 17 |
| 5 | CUHP191AM05 | DEEPIKA | 9 |
| 6 | CUHP19IAM06 | GARIMA THAKUR | $P$ |
| 7 | CUHP191AM07 | KAJAL | $P$ |
| 8 | CUHP19IAM08 | KAMAL KISHOR | $P$ |
| 9 | CUHP19IAM09 | KASHIK SHARMA | $\bigcirc$ |
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| 11 | CUHP19IAM11 | MAMTA DEVI | P |
| 12 | CUHP19IAM12 | MANISHA | 0 |
| 13 | CUHP191AM13 | MANISHA SHARMA | $P$ |
| 14 | CUHP19IAM14 | NITISH SHARMA | 0 |
| 15 | CUHP19IAM15 | PRAVEEN KUMAR | $?$ |
| 16 | CUHP19IAM16 | PRIYANKA | ? |
| 17 | CUHP19IAM17 | PRIYANKA THAKUR | $?$ |
| 18 | CUHP19IAM18 | RAKESH KUMAR | $P$ |
| 19 | CUHP19IAM19 | SACHIN RANA | $p$ |
| 20 | CUHP191AM20 | SAHIL CHAUDHARY | 17 |
| 21 | CUHP19IAM21 | SNEHA YADAV | $\rho$ |
| 22 | CUHP19IAM22 | SOURAV | O |
| 23 | CUHP191AM23 | SOURAV |  |
| 24 | CUHP19IAM24 | SUNIL PRAJAPAT | $p$ |
| 25 | CUHP19IAM25 | SUNNY KUMAR | 17 |
| 26 | CUHP191AM26 | UDIPTA PHUKON | $P$ |
| 27 | CUHP19IAM27 | VIKRANT DHARWAL | 1 |
| 28 | CUHP19IAM28 | VISHAB KAUNDAL | 17 |
| 29 | CUHP19IAM29 | VISHAL - | $\bigcirc$ |
| 30 | CUHP191AM30 | VISHVENDRA SINGH |  |
| 31 | CUHP191AM31 | MANU BALA | $Y$ |
| 31 | CUHP191AM31 | MANU BALA | $\rho$ |

