

#### P.K.M. COLLEGE OF EDUCATION

MADAMPAM, KAITHAPRAM PO, KANNUR-670631, Website-www.pkmcollege.org Govt. Aided Teacher Education Institution affiliated to Kannur University Recognized by NCTE and included under UGC 2(f) & 12B category Accredited by NAAC with 'A' Grade, RUSA 2.0 beneficiary

# PROGRAME PORTFOLIO

DEPARTMENT OF MATHEMATICS 2022 - 24







# PKM COLLEGE OF EDUCATION MADAMPAM

#### REPORT OF MATHEMATICS OPTIONAL CLASS OF THE YEAR 2022-24

#### **OBJECTIVES**

- 1. To nurture, create and mould inspiring mathematics teachers.
- 2. To acquire mastery in various techniques and hence to create efficient next generation teachers.
- 3. To mould excellent teachers through discussion, criticism and demonstration classes.
- 4. To be proficient in planning and executing lessons.
- 5. To develop competency in teaching exceptional children and all types of children.
- 6. To develop competency in student teachers to pass K-TET exams.
- 7. Provide opportunities to student teacher that enable learning experience to make subject matter meaningful at secondary level.
- 8. To prepare dedicated teachers for improvement of the school education system.
- 9. To understand the history of mathematics and mathematician so that the teacher students get motivated, decrease their anxiety related to the subject, building positive attitude towards the subject and have a better understanding about mathematics.

#### **ACTIVITIES PLANNED**

- 1. Workshop on google form
- 2. Video editing class
- 3. K TET Question bank preparation
- 4. Micro teaching
- 5. De Morgan's Day
- 6. National Statistics Day
- 7. Wilhelm Leibniz Day
- 8. John Venn Birthday
- 9. Acclimatization
- 10.Criticism Class
- 11.Math 2.0 Day
- 12. Second semester seminar
- 13.Pre Internship Orientation Phase 2
- 14. School Internship
- 15. Third semester seminar
- 16. SET,K TET, C TET holders
- 17. To draw different geometric patterns and number patterns.
- 18. Collect contributions of different Mathematicians
- 19. Workshop on brochure making
- 20. Dr. Harish Chandra Birthday celebration.

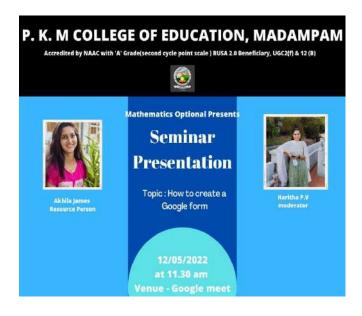
- 21. First Semester seminar presentations.
- 22.Dr.M Ram Murti Birthday celebration.
- 23. Workshop on google form.
- 24. Shakunthala Devi Birthday Celebration.
- 25. Fibonnacci day celebration.
- 26. National Mathematics day.
- 27. School Acclimatization
- 28.Micro Teaching
- 29.PI Day Celebration
- 30.Palindrome day Celebration
- 31.Second semester seminar presentations

#### **ACTIVITIES EXECUTED**

#### SECOND, THIRD AND FOURTH SEMESTER (2021-23 BATCH)

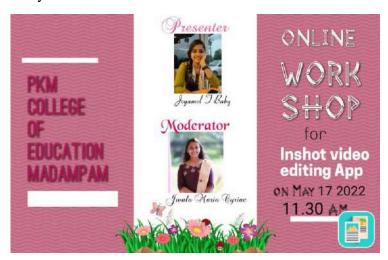
#### 1.Workshop On Google Form

Mathematics department of PKM college of education has organized an online workshop on the application of google forms for the second year mathematics students. It was conducted on 12 of may, 2022, through google meet platform at 11:30 am. The workshop was headed by Akhila James of second year mathematics. All 8 students actively participated in the online workshop and made a google form on their own. It was a one hour workshop which came to an end by 12:30 pm.



#### 2. Video Editing Class

2021-23 batch students of mathematics department conducted a tuitorial class on video editing. All the 8 students of the mathematics department actively participated in the session. The aim of the session was to equip student teachers to prepare video lessons. The class on inshot was led by Joyamol T Baby.



#### 3. K Tet Question Bank Preparation

Second year Mathematics B Ed students prepared question bank for KTET examination with the aim that each student should qualify the examination before the end of their B Ed course. Haritha P V was appointed as the coordinator for question bank preparation. The strategy taken for preparation was that, the total syllabus for the examination was divided into 8 equal parts, each of the part is given to each student, and they were asked to prepare a minimum of 25 questions from their corresponding section. Each student prepared their questions in multiple choice model. Exam preparations were made on the basis of the question bank, 3 students qualified K TET,3 students qualified C TET and 3 students qualified set examination.

#### 4. Micro Teaching

For learning various skills in Mathematics the teacher trainees of mathematics department of PKM College took micro teaching classes under the guidance of Dr Sholy Joseph K, Head of mathematics department. The topics handled by all the 8 teacher trainees is mentioned below

Name of student teacher	Topic
Akhila James	Polygons
Haritha P V	interest
Jisna Augustine	Fractions
Joyamol T Baby	Probability
Jwala Mariya Cyriac Arithmetic sequences	
Manjusha N	Equal triangles
Sanjiya Benny	Circles
Sneha V	Introduction to three dimensional figures

#### 5. De Morgan's Day

#### Report



Mathematics optional of P.K.M College of Education Madampam celebrated De Morgan's Birthday on 8th June 2022 by conducting a shuffle & take programme. The programme was begin at 1:30 pm in the mathematics class cum method lab. Akhila James was the programme co.ordinator. The other members of the class (Haritha P V,Jisna Augustine,Joyamol T Baby,Jwala Mariya Cyriac, Manjusha N,Sanjiya Benny,Sneha v) were took the question and answered them.

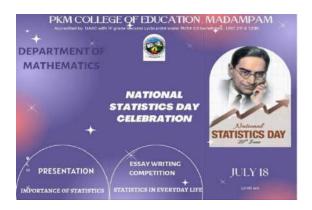




#### 6. National Statistics Day

#### **Report**

National Statistics Day 2022 was celebrated by department of mathematics on  $\ 18\ /\ 7\ /\ 2022$  , Monday , at class cum method lab .



The program was started with the welcome speech by Ms. Jisna Augustine. Then the program coordinator Ms. Joyamol T Baby presented a presentation on the topic 'The Importance of Statistics in Everyday Life.' Dr. Sholy Joseph delivered the presidential address for the program. Then Ms. Manjusha N delivered a felicitation and it followed by Ms. Sanjiya's vote of thanks.

#### **OTHER ACTIVITY**

Department of Mathematics conducted a essay writing competition on the topic 'Importance



of Statistics in Everyday Life' for the entire B.Ed students at PKM college of education.

#### 7. Wilhelm Leibniz Day

#### Report

Wilhelm Leibniz day celebration was held on 2022 July 25 at maths cum method lab. The meeting was welcomed by Manjusha .N. Then Dr. Sholy Joseph, Head of the Dept., presented



the presidential address. After that the programme coordinator, Jwala Mariya Cyriac explained the programme, puzzle contest, and gave rules and regulations to the student teachers. Then the puzzle competition conducted individually. There was two steps in the competition. First was to solve the questions given in the lots, and the second was to arrange the paper pieces into a person's face. The game was so interesting for all. Haritha P V was the first in solving the problems in the lots. But, Student teacher Manjusha. N won the game by completing the two steps of the game successfully. Sneha. V & Sanjiya Benny were placed second and third respectively. Dr. Sholy Joseph gave the prize to the winners. That was the first time the winners are gifted with something special. Dr. The programme ended with the vote of thanks from Jisna Augustine.

#### **Brochure:**







**Photos:** 

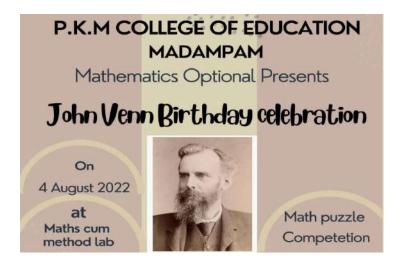


#### 8. John Venn Birthday

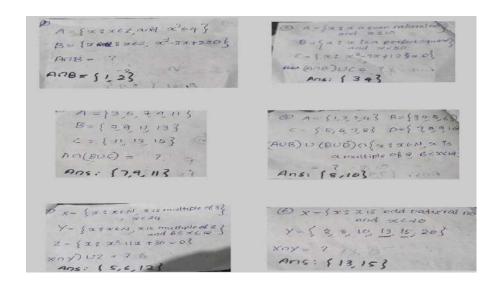
#### Report

Mathematical optional of P K.M college of education, Madampam celebrated John Venn's Birthday on 4<sup>th</sup> August 2022. This programme was welcomed by Haritha P. V and head of the mathematics department Dr. Sholly Joseph presented the presidential address. After that Jwala Mariya Cyriac presented facilitation to the programme. Followed that the programme coordinator Sneha V held a puzzle competition in the class by dividing the class into 3 gropus. The group containing Haritha P V and Joyamol won the first prize , group of Manjusha N and Jwala won the second prize. The programme ended with the vote of thanks of Akhila James.

#### **Brochure**



#### **Photos**



#### 9. Acclimatization

A Teacher's professional duties may extend beyond formal teaching: ie.help with organisation of school functions, serving as supervisors etc. The two year B Ed course therefore includes a one week school acclimatization programme for student teachers. It was conducted from 11/08/22 to 19/08/22.

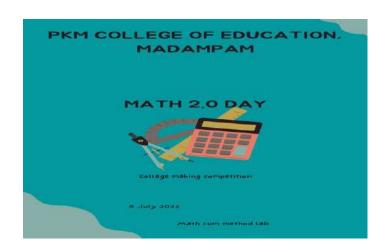
#### 10. Criticism Class

As an essential part of B.Ed course criticism classes of mathematics students of 2021-23 batch was conducted from 23/09/21 to 30/09/21. Students prepared well for their class .It was conducted in maryland HSS Madampam. After watching classes of each one a discussion was conducted and critically examine positive aspects and the points need to improve. All students and teacher participated in discussion. The criticism classes was very helpful for every students to improve their teaching skills. The topics taken by them are given below.

Name of student teacher	Topic	
Akhila James	Cartesian products	
Haritha P V	Fibonacci sequences	
Jisna Augustine	Equations	
Joyamol T Baby	probability	
Jwala Mariya Cyriac	Arithmetic sequences	
Manjusha N	Sets	
Sanjiya Benny	Statistics	
Sneha V	Prisms	

#### 11.Math 2.0 Day

#### Report



Math 2.0 day celebration was held on 8 August 2022 at math cum method lab. The meeting was welcomed by Akhila james. Then Jisna Augustine presented the presidential address. The felicitation was done by Sanjiya Benny.



After that the program coordinator Manjusha N explained the importance of Math 2.0 day celebration and gave rules and regulations for the collage making competition. The student teachers were grouped into 3 and made collage on the topic relation between mathematics and technology. Each group participated in a good manner.

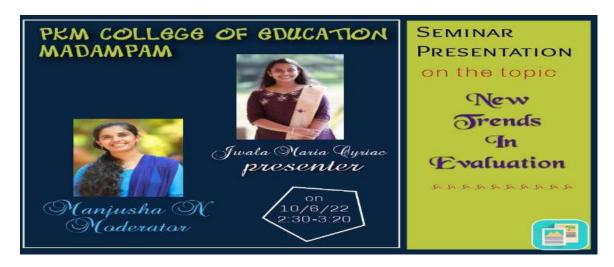


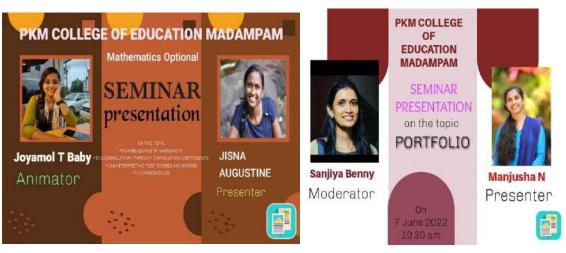
The group 1 (Joyamol T Baby, Jwala Maria Cyriac, Sanjiya Benny) won the first prize. The group 2(Sneha V ,Haritha P V) won the second and the group 3(Jisna Augustine, Akhila james) won the third prize.

#### 12. Second Semester Seminar

The teacher allotted topic for the seminar. The student-teachers gathered together on the online platform and offline mode to take seminars on the topics assigned to them. Seminar topics are added below.

Name of student teacher	Date	Topic	
Akhila James	24/08/22	Assigning Grades on the basis of classroon assessments and reporting.	
Haritha P V	19/08/22	Trends in the assessment of students with disabilities.	
	22/08/22	Preparation of diagnostic test	
Jisna Augustine	17/06/22	correlation, interpreting test scores and norms, percentiles, cautions in interpreting test scores	
Joyamol T Baby	20/08/22	Examination Reform Efforts	
	28/08/22	Theoretical foundations of learning and assessment	
Jwala Mariya Cyriac	17/08/22	pedagogical analysis:a conceptual overview	
Manjusha N	16/08/22	Reference books, Periodicals, Journals, Resource CD's, e-materials, Supplementary readers-	
	07/06/22	Portfolios	
Sanjiya Benny	18/08/22	Data analysis	
	10/06/22	New trends in evaluation	
Sneha V	18/08/22	Performance Assessments	





#### **13.Pre Internship Orientation-**



Internal Quality Assurance Cell of P.K.M College of Education Madampam conducted pre – internship orientation for Mathematics Student Teachers on 28th September 2022. The programme begun at 9.45 am in the Mathematics Class Cum Method Lab. Mrs. Jismy Georgekutty, UPST, Vayathur UP School Ulikkel was the resource person of the programme. Mathematics Optional Teacher Asst.Prof. Dr.Sholly Joseph delivered the welcome speech for the programme. After that Mrs. Jismy Georgekutty delivered her teaching experience to the student teachers. The student teachers of mathematics optional cleared their doubts regarding teaching in school. It was a good experience to the student teachers to get an interactive session

with an expert before going to their internship programme. Student teacher Ms. Jisna Augustine delivered the vote of thanks. The programme ended at 12.30 pm.





#### 14. School Internship

School internship for the academic year 2020-22 began on 06/10/2022. Classes started for 8th and 9th standard students 6/10/22 onwards. Around 50 lesson plans were taken for 8th and 9th standard students.10 classes were taken in HSS or UP classes. Student teachers participated actively in every program conducted in their respective schools and made School activities record according to that. Total 8 records were prepared and presented by each students on the basis of school internship. Sakunthala devi rememberance and national mathematics day were celebrated successfully on each school and different Mathematics related competitions and events were conducted. List of students and their schools.

Name of student teacher	School
Akhila James	GHSS Irikkur
Haritha P V	GHSS Sreekandapuram
Jisna Augustine	GHSS Sreekandapuram
Joyamol T Baby	Maryland HSS Madampam
Jwala Mariya Cyriac	Maryland HSS Madampam
Manjusha N	GHSS Irikkur
Sanjiya Benny	GHSS Nedungom
Sneha V	GHSS Sreekandapuram

#### 15. Third Semester Seminar

The third semester started on the 10th of October. The Internship Program was conducted in schools until the 31st of December. The student-teachers then gathered together on the online platform and took seminars on the topics assigned to them. Seminar topics are added below

Name of student teacher	Date	Topic	
Akhila James	30/12/22	Identifying learners' strength and weaknesses;	
		Recreational activities in mathematics learning	
Haritha P V	28/12/22	Exceptional children in mathematics	
		Learning difficulty in mathematics (dyscalculia)	
Jisna Augustine	28/12/22	concept of multiple intelligence	

		Fields medal, mathematics olympiad, NUMATS, NTSC, MTSC, etc
Joyamol T Baby	31/12/22	UNIT V ICT in Improving Teaching Performance
Jwala Mariya Cyriac	31/12/22	ERIC,INFLIBNET audio visual AIDS, improvised AIDS-meaning and importance
Manjusha N	29/12/22	Programmed Learning - Meaning and characteristics Linear- Branching- Mathematics
Sanjiya Benny	02/01/23	Cooperative learning ,mathematics clubs, mathematics fairs or exhibition :Mathematics Olympiad , mathematics talent search examination
Sneha V	01/01/23	Unit 1: Planning For Teaching-Learning Mathematics

#### 16. Set ,K Tet ,C Tet Holders

In preparation for the competitive exams, the student-teachers came together and discuss the syllabus and previous year's question papers, and each student prepared probabilistic questions on each papers. Six students from the Mathematics section appeared for the set examination held on January 22, 2023 and three students, Haritha P V,Jisna Augustine and Manjusha N qualified for the SET.FIVE students from the Mathematics section appeared for the K TET examination and three students, Joyamol T Baby,Jwala Mariya Cyriac and Manjusha N qualified for the K TET. Three students from the Mathematics section appeared for the C TET examination and three students, Joyamol T Baby,Jwala Mariya Cyriac and ,Jisna Augustine qualified for the C TET.

#### FIRST & SECOND SEMESTER REPORT (2022-24 BATCH)

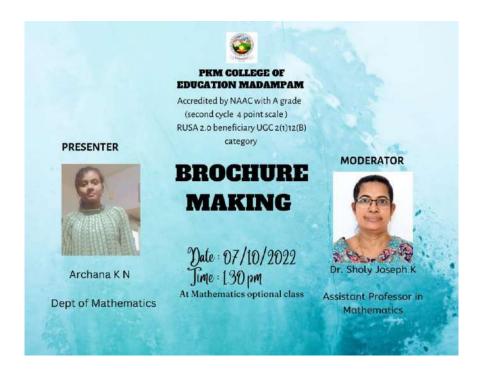
#### 17. Geometrical pattern and Number pattern

Every student teachers submitted an assignment consisting of 15 geometric patterns and 15 number patterns in both hard and soft forms.

#### 18. Contributions of Mathematicians

Every student teachers submitted an assignment consisting of 15 Mathematicians and their contributions.

#### 19. Workshop on Brochure making



P.K.M College of Education, Madampam conducted a brochure making workshop for first year B.Ed Mathematics students on Tuesday 11/10/2022 at 1.30 pm in Mathematics Class Cum Method Lab. Ms. Archana.K.N introduced brochure maker using **CANVA** App in Google Play Store for other students. Ms. Jobina Jose delivered the welcome address. Moderator Dr. Sholy Joseph K delivered a speech and enunciated the relevance of brochure in our academic life. Ms.Chaithanya C K delivered felicitation to the programme.

Ms. Archana K N explained the activities included in the brochure. And explained the important things that we need to keep in mind while making a programme brochure. At the end of the section other children were given the task to prepare the brochure of any subject and find different levels of this application. Ms Snehadas D S proposed vote of thanks. The programme came to an end at 2.30 pm.







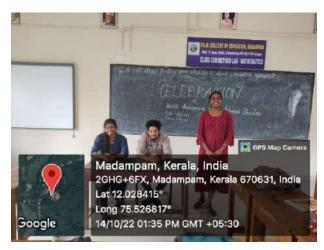




#### 20.Dr.Harish Chandra Birthday Celebration



P.K.M College of Education, Madampam conducted a celebration on Birth Anniversary of Dr. Harish Chandra, an Indian mathematician for first year B.Ed Mathematics students on 14/10/2022 at 1:30pm in Mathematics class cum method lab. Ms. Liya introduced Dr. Harish Chandra and conducted a programme based on this celebration. Ms. Akhila V delivered the welcome address. Moderator Mr.Akshay G delivered a small information about Dr. Harish Chandra. Mr. Harikishor KV delivered felicitation to the programme.



Welcome by Akhila V.



Moderating by Akshay G



Fecilitating by Harikishor

Ms. Liya started the celebration by introducing Dr. Harish Chandra. Harish-Chandra (11 October 1923 – 16 October 1983) was an Indian American mathematician and physicist who did fundamental work in representation theory, especially harmonic analysis on semisimple Lie groups. He was known for Harish Candra's c-function, Harish Candra's character formula, Harish Candra's homomorphism, Harish Candra's isomorphism, Harish Candra module, Harish Candra's regularity theorem, Harish Candra's Schwartz space, and Harish Candra transform. He received awards like Fellow of the Royal Society, Cole prize in algebra and Srinivasa Ramanujan medal .

In accordance with his Birth Anniversary , Ms. Liya conducted a small programme that included some quizzes, puzzles and riddles. She partitioned the students into two groups A and B and all of them actively participated in the programme. The problems includes what is Ramanujan number . Luckily both the groups answered. The solution was 1729. The next question was to answer what is  $\sqrt{(9\%)}$  of 99 . All of them answered very quickly. The next question was from introductory part of Dr. Harich Chandra. The question was to answer his birth place and his contributions. Then questions of several riddles and puzzles were asked. Total of 10 questions were there. Finally group A won the match by 6 points and group B scored 5 points. Then Ms. Archana K N proposed vote of thanks. The programme came to an end by 2:30 pm

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#### 21. First Semester Seminar

During the first week of October, the teacher allotted topic for seminar to each student teachers. Seminar topics are added below.

No.	Name of the Student Teacher	Date	Торіс	
1	Liya	18-10-2022	Qualities and competencies of a good Mathematics teacher	
2	Chaithanya C K	25-10-2022	Correlation of Mathematics	
3	Snehadas D S	28-11-2022	Mathematics Curriculum	
4	Akhila V	08-12-2022	Professional growth of Mathematics teacher and Content organization	
5	Anu Maria Jacob	13-12-2022	Mathematics Curriculum Reforms	
6	Harikishor K V	04-01-2023	Teaching techniques and small group techniques	
7	Zia .R	03-01-2023	Problem solving method and project method	
8	Jobina Jose	06-01-2023	Analytic and synthetic method of teaching	
9	Akshay G	06-01-2023	Technics of individualising instruction-homogenious grouping supervised study, self study.	
10	Archana K N	10-01-2023	Orientation and implication to theories of Bruner, Piaget, Gagne, Vygotski, Chomsky and Gardner in teaching Mathematics	

#### (i) SEMINAR ON QUALITIES AND QUANTITIES OF A GOOD MATHEMATICS TEACHER



P.K.M College of Education, Madampam conducted a seminar on the topic qualities and quantities of a good Mathematics teacher on 18 th October 2022 at 1:30 pm in class cum method lab- mathematics. Ms. Liya was the presenter of the programme. Ms. Chaithanya C K was the moderator and delivered a

small information about the topic. Chief guest Dr. Sholly Joseph K and Ms. Archana KN delivered the felicitation to the programme .

Ms. Liya conveyed various qualities of a good Mathematics teacher . He or she should possess qualities like Interest in mathematics, Positive attitude towards mathematics, Knowledge of individual differences, Patience and Tolerance etc... She also explained various competencies of a good teacher. She explained briefly about the importance of applying new technology in teaching learning. Then everybody in the meeting shared their experience in their mathematics life. Finally the meeting ended with vote of thanks by Mr. Harikishore K V.



Welcome by Anu Maria jacob.



Felicitation by Archana.

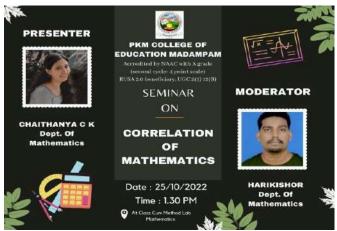


Moderating by Chaithanya C K



Presented by Liya

#### (ii) SEMINAR ON CORRELATION OF MATHEMATICS



P.K.M College of Education, Madampam conducted a seminar on the topic Correlation of Mathematics teacher on 25th October 2022 at 1:30 pm in class cum method lab- mathematics. Ms. Chaithanya C K was the presenter of the programme. Mr. Harikishor K V was the moderator and delivered a small information about the topic. Ms Akhila V delivered the welcome speech and Ms. Anu Maria Jacob delivered the felicitation to the programme.



Welcome Speech by Akhila V



Moderating by Harikishor K V



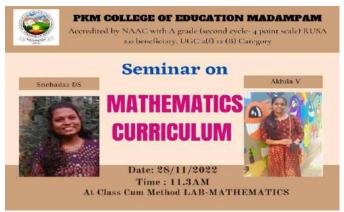
Felicitation by Anu Maria Jacob



Presented by Chaithanya C K

#### (iii) SEMINAR ON MATHEMATICS CURRICULUM

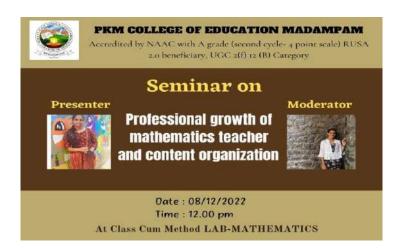
Mathematics department of PKM College of Education, Madampam conducted a seminar on



"Mathematics curriculum" for first year mathematics student teachers on 28<sup>th</sup> November 2022 at 11am in Mathematics class cum method lab.

Ms. Snehadas D S presented on the topic Mathematics curriculum. Ms. Akhila V was the moderator of the seminar. The programme came to an end by 12.30 pm.

#### (iv) SEMINAR ON PROFESSIONAL GROWTH OF MATHEMATICS TEACHER AND CONTENT ORGANIZATION



Mathematics department of PKM College of Education, Madampam conducted a seminar on "Professional growth of Mathematics teacher and content organization" for first year mathematics student teachers on 8<sup>th</sup> December 2022 at 12 O' clock in Mathematics class cum method lab.

Mr. Akshay G delivered the welcome address. Moderator Ms. Jobina Jose gave an introduction to the programme. Ms. Archana K N delivered felicitation to the seminar. Ms. Akhila V presented on the topics professional growth of Mathematics teachers, role of NCERT and SCERT in the professional growth of Mathematics teacher and principles of content





organization  $\,$  . Ms. Snehadas D S proposed vote of thanks. The programme came to an end by  $12.40~\mathrm{pm}$ .

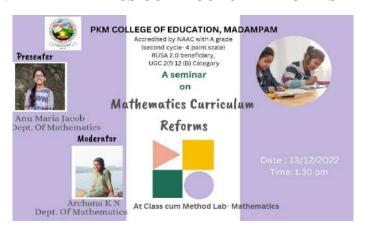








#### (v) SEMINAR ON MATHEMATICS CURRICULUM REFORMS



P.K.M College of Education, Madampam conducted a seminar on Mathematics Curriculum Reforms for first year BEd Mathematics students on 13th December 2022 at 1.30 pm in Mathematics- class cum method lab . Ms. Akhila V delivered the welcome address. Moderator Ms. Archana K N controlled the introductory program. Ms. Akshay G delivered felicitation to the program. Ms. Anu Maria Jacob started the seminar presentation. The seminar includes the Mathematics curriculum reforms in SMSG, SMP, NUFFIELD, NCF and KCF. The seminar came to an end at 2.30 pm. Ms. Chaithanya C K proposed Vote of thanks.



Welcome by Akhila V

Moderator addresses to the function



Felicitation by Akshay G



## (vi) SEMINAR ON TEACHING TECHNIQUES AND SMALL GROUP TECHNIQUES



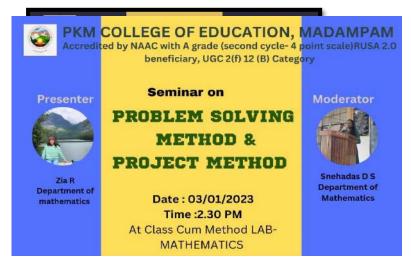
P.K.M College of Education, Madampam conducted a seminar on Teaching Techniques & Small Group Techniques for first year BEd Mathematics students on January 4<sup>th</sup> 2023 at 11.30 am in Mathematics- class cum method lab. Ms. Akhila V delivered the welcome address. Moderator Miss Chaithanya C K controlled the introductory program. Ms Archana K N delivered the felicitation address for the seminar. Mr Harikishor K V presented the seminar on the topic "Teaching Techniques & Small Group Techniques". After the presentation questions were raised regarding the topic. The session came to an end by 12.30pm with the vote of thanks being delivered by Ms Liya.







#### (vii) SEMINAR ON PROBLEM SOLVING METHOD AND PROJECT METHOD



P.K.M College of Education, Madampam conducted a seminar on the topic Problem solving method and project method on  $3^{\rm rd}$  January 2023 at 2:30 pm in class cum method lab-mathematics. Ms. Zia R was the presenter of the programme. Ms. Snehadas D S was the moderator and delivered a small information about the topic. Ms Jobina delivered the welcome speech and Ms. Anu Maria Jacob delivered the felicitation to the programme .

Ms. Zia R conveyed problem solving method and project method. She explained about the importance of learning and applying mathematics in everywhere. Finally the meeting ended with vote of thanks by Ms.Chaithanya C K.





#### (viii)SEMINAR ON ANALYTIC AND SYNTHETIC METHOD OF TEACHING

Mathematics department of PKM College of Education, Madampam conducted a seminar on "Analytic and synthetic method of teaching Mathematics "for first year mathematics student teachers on 6<sup>th</sup> January 2023 at 1.30pm in Mathematics class cum method lab.

Ms. Jobina Jose presented on the topic Analytic and synthetic method of teaching Mathematics with examples. The programme came to an end by 2.30 pm.







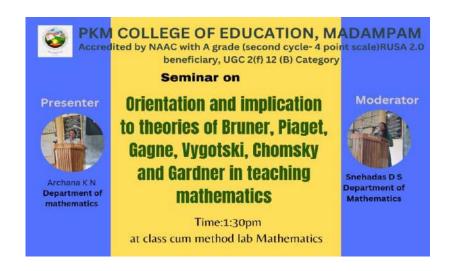
#### (ix) SEMINAR ON TECHNIQUES OF INDIVIDUALISING INSTRUCTION - HOMOGENEOUS GROUPING, SUPERVISED STUDY, SELF STUDY



P.K.M College of Education, Madampam conducted a seminar on Techniques of individualising instruction-homogeneous grouping supervised study, self study for first year BEd Mathematics students on 16th December 2022 at 2.30 pm in Mathematics- class cum method lab . Ms. Akhila V delivered the welcome address. Moderator Ms. Chaithanya C K controlled the introductory program. Ms.Harikishor delivered felicitation to the program. Mr. Akshay G started the seminar presentation. The seminar came to an end at 2.30 pm. Ms. Archana K N proposed Vote of thanks.



## (x) SEMINAR ON ORIENTATION AND IMPLICATION TO THEORIES OF BRUNER, PIAGET, GAGNE, VYGOTSKI, CHOMSKY AND GARDNER IN TEACHING MATHEMATICS



Mathematics department of PKM College of Education, Madampam conducted a seminar on "Orientation and implication to theories of Bruner, Piaget, Gagne, Vygotski, Chomsky and Gardner in teaching mathematics" and content organization for first year mathematics student teachers on 10<sup>th</sup> January 2023 at 1.30pm in Mathematics class cum method lab.

Ms. Archana. K.N presented on the topic *orientation and implication to theories of Bruner*, *Piaget*, *Gagne*, *Vygotski*, *Chomsky and Gardner in teaching mathematics* with examples. The programme came to an end by 2.30 pm.



P.K.M College of Education, Madampam conducted a celebration on Birth Day of Dr. M Ram Murty, an Indo- Canadian mathematician for first year BEd Mathematics students on 21 st October 2022 at 2.30 pm in Mathematics- Class Cum Method Lab. Ms. Anu Maria Jacob introduced Dr. M Ram Murty and conducted a program based on this celebration. Mr. Akshay G delivered the welcome address. Moderator Ms. Akhila V delivered a small information about Dr.M Ram Murty. Ms. Snehadas D S delivered felicitation to the programme.



Welcome by Akshay G Moderator addresses to the function

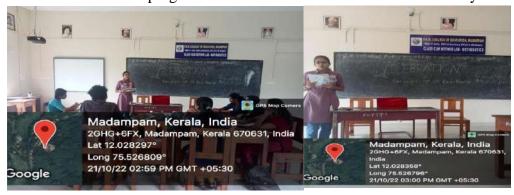


Felicitation by Snehadas D S

Ms. Anu Maria Jacob started the celebration by introducing Dr. M Ram Murty. M Ram

Murty(born on 16 October 1953) is an Indo- Canadian mathematician at Queen's University where he holds a Queen's research chair in Mathematics. He is a leading figure in Number Theory. He is particularly interested in modular forms, elliptic curve theory and so on. He received awards like Fellow of the Royal Society of Canada, Coxeter- James prize and Felow of American Mathematical Society, the Fields Institute and Indian Academy of Sciences.

In accordance with his Birth Day, Ms. Anu Maria Jacob conducted a small program that includes some puzzles and riddles to find the missing number series in Math puzzle. She partitioned the students into four groups A, B, C and D and all of them actively participated in the program. Total of 10 questions were there. Then Ms. Jobina Jose proposed vote of thanks. The program came to an end by 3:30 pm.







23. Workshop on google form.



P.K.M College of Education , Madampam conducted a workshop on Google Form making for first year BEd Mathematics students on 3rd November 2022 at 12.00 pm in Mathematics-

class cum method lab . Ms. Archana K N delivered the welcome address. Moderator Dr. Sholy Joseph K talked about the importance of Google Form in academic life. Ms . Akhila V delivered felicitation to the program.



Welcome by Archana K N

Moderator addresses to the function

Ms. Anu Maria Jacob started the workshop by explaining the informations needed in the Google Form and explained the important things that we need to keep in mind while making a Google Form using the link from Google Chrome. At the end of the section other children were given the task to prepare a Google Form. Programme came to an end at 12.45 pm. Ms. Chaithanya C K proposed vote of thanks.

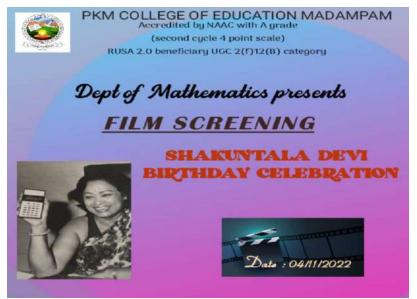


Felicitation by Akhila V



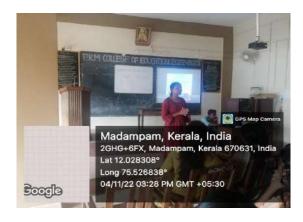
Vote of thanks by Chaithanya C K

#### 24.Shakunthala Devi Birthday Celebration.



On the birthday of the great Indian mathematician Shakunthala Devi ,who is also known as 'human computer', the mathematics department of PKM College of education, Madampam conducted a film screening in the college general hall on friday ,4th ,November 2022 at 2.00 pm. The Indian film , 'Shakunthala Devi', the biographical film of the great mathematician Shakunthala Devi ,which is written and directed by Anu Menon ,was screened for all the first year students to understand the extra ordinary story of Shakunthala Devi. Student coordinator Akhila V gave a brief description about Shakunthala Devi before screening the film. The film could help the students to understand the fascinating life and mathematical skills of Shakunthala Devi.











Mathematics department of PKM College of Education, Madampam organized a celebration on Fibonacci day for first year mathematics student teachers on 30<sup>th</sup> November 2022 at 11.30 AM in Mathematics class cum method lab.

Ms.Ziya.R delivered the welcome address. Moderator Dr. Sholy Joseph gave an introduction to the programme. Ms. Liya delivered felicitation to the programme. Ms. Akhila V began the celebration by giving brief information about Fibonacci day celebration. She mentioned about Fibonacci sequence, Golden ratio, Fibonacci sequence in nature, Fibonacci day etc.

As part of the celebration, Ms. Akhila V partitioned the students into two groups and conducted a competition which included puzzles, riddles and general questions on Mathematics. Also she gave the task to solve the Jigsaw puzzle to both the groups. She ensured the active participation of all students. Ms. Snehadas D S proposed vote of thanks. The programme came to an end by 12.30 pm.



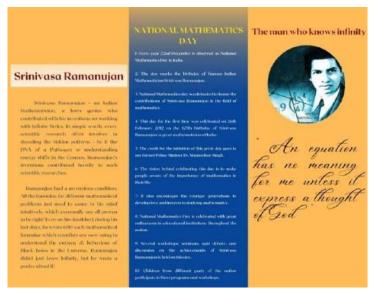




#### 26. National Mathematics day.

#### ASYMPTOTIA 2022





B.Ed Mathematics students of batch 2022-24 in association with Mathlovers club of P.K.M

College of Education, celebrated National Mathematics Day, 'ASYMPTOTIA' on Thursday 22/12/2022 at 9.30 am at P.K.M College of Education, Madampam. Every year, 22nd

December is observed as National Mathematics Day to mark the birth anniversary of Srinivasa Ramanujan, a legendary Indian Mathematician. His contributions to Number Theory, Infinite Series, Mathematical Analysis, etc., are considered as instrumental. Mathematics day is marked to celebrate his works and recognize him as legend in mathematics. National Mathematics Day is an occasion to remember Ramanujan's great achievements.

Mathlovers club and Mathematics department of P.K.M. College of Education, conducted a programme 'ASYMPTOTIA' to celebrate National Mathematics Day. Jobina Jose student coordinator ,Dept.of Mathematics delivered the welcome address. Dr. Sholy Joseph K (Assistant Professor , Department of Mathematics) delivered the presidential address. At 9.45 AM, the Principal, Dr. Jessy N. C inaugurated the ceremony. Release of Mathematics class magazine 'SIGMA 2022-24', e - calendar for the year 2023 and an exhibition prepared at

mathematics classroom were inaugurated by the Principle Dr. Jessy N C. Also released Compendium of KTET questions by Dr. Rekha K.R. Associate Professor, English Department. A Game Session and Treasure Hunt was also conducted. Anu Maria Jacob, student teacher, Dept. of Mathematics introduced the e-calendar. Harikishor K.V, student teacher, Dept. of Mathematics spoke about compendium of KTET questions. A short video on Srinivasa Ramanujan was played during the ceremony.

Anju T Mathew, convener of Mathlovers club delivered a felicitation to the programme and Akhila V, student teacher, Dept. of Mathematics delivered the vote of thanks.



#### **SIGMA 2022-24**

Mathematics class magazine 'SIGMA 2022-24' was released by the Dept. of Mathematics on 13<sup>th</sup> January 2023. It was released during the National Mathematics Day celebration by Dr. Jessy N C, the principal of P. K. M. College of Education, Madampam. The magazine was under the guidance of the Chief Editor Dr. Sholy Joseph K, Assistant Professor of Mathematics Department.

The magazine 'SIGMA 2022-24' was a collective effort from the student teachers of Mathematics Department. Dr. Sholy Joseph K was the chief editor accompanied by sub editor

Liya, student teacher of mathematics and the associate editors Akhila V, Akshay G, Anu Maria Jacob, Archana K N, Chaithanya C K, Harikishor K V, Jobina Jose, Snehadas D S and Zia R (all are student teachers, Dept of Mathematics). The magazine includes articles on National Mathematics Day, Pi Day, and Fibonacci Day. It also includes great mathematicians and their contributions, various medals given in the mathematics field, maths fun, maths comics, puzzles, riddles and facts. An overview of the text was given by the sub editor Liya during releasing ceremony.



#### E- CALENDAR

As part of National Mathematics Day celebrations, Department of Mathematics released an

Academic Maths Calendar. It was released by college principal Dr. Jessy N C on 22<sup>nd</sup> December 2022. The 2023's calendar consists of birthdays of famous mathematicians, holidays and other Mathematics related days. The intention behind this attempt is to remember the great contributions of all Mathematicians around the world to the growth of Mathematics. On their birthdays, the students celebrate the day by collecting the information of their contributions and biography and getting inspired by them. Ms. Anu Maria Jacob gave an overview about the e-calendar.



#### **COMPENDIUM OF KTET QUESTIONS**

A compendium of K-TET questions was published by the Dept of Mathematics and P.K.M College of education during the National Mathematics Day celebrations here at P.K.M College of education. It was under the guidance of the Chief Editor Dr. Sholy Joseph K (Asst. Prof. of Mathematics, PKM College). The publication was done by handing over a copy of the text to Dr Rekha K R (Associate Prof. English, PKM College).

The compendium of K-TET questions was a collective effort from the student teachers of the mathematics department. The idea of preparing such a text came early during their first days of BEd classes and later on it took shape and finally was published as a text. Dr Sholy Joseph K was the Chief editor accompanied by the Sub Editor Harikishor K V (student teacher, Dept of Mathematics) and the associate Editors Akhila V, Akshay G, Anu Maria Jacob, Archana K N, Chaithanya C K, Jobina Jose, Liya, Snehadas D S and Zia R (all are student teachers, Dept of Mathematics). The text mainly focus on the questions from Mathematics and General Science from category 1 & 2. The text will hopefully be beneficial for BEd students of Mathematics optional. An overview of the text was given by the Sub Editor Harikishor K V during the publishing ceremony.



#### **EXHIBITION**

As part of National Mathematics Day 2022-23 celebrations, there was an Exhibition held by the Department of Mathematics and Mathlovers Club on 22/12/2022. The exhibition was inaugurated at 11.30 am by College Principal Dr. Jessy N C. Assistant Professor of Mathematics and Co-ordinator of Mathlovers Club Dr. Sholy Joseph K was also present there. Teachers and students also participated. The exhibition showcased interesting games such as

Tower of Hanoi puzzle, Diagonal Move Game, Prime Number Game, Age Calculator,

Dominoes puzzle and many charts including Geometric Patterns, contributions of famous Mathematicians and Time. Student teachers from all departments participated in this exhibition. It was exhibited till noon on 23/12/2022.





#### MATHS PUZZLES AND RIDDLES

As part of National Mathematics Day, Mathlovers Club organized a puzzle competition for student teachers on that day. Harikishor K.V and Anju T Mathew were the quiz masters. About 15 questions were asked and all the student teachers participated. In the competition, English student teacher Jyothis Cyriac won the first prize, and Physical Science student teacher Anusha

V and Akshay Sukumaran won the second and third positions. On 23/12/2022, after the morning college assembly, English Department Associate Professor Dr. Rekha K R felicitated the winners with prizes.





#### TREASURE HUNT

As part of the National Mathematics Day celebration, the Math lovers Club organized a Treasure Hunt for the student teachers on the same day at 1:00 pm. From each optional subjects, a group of 4 students participated. The group that would gather all the clues and reach the treasure first would be declared as the winner. Each group was provided with a volunteer from the club. There were seven clues and each clue led to a spot in the college. While reaching there they would get the next clue and 3 pieces from a Jigsaw puzzle from the volunteers. After the 6<sup>th</sup>clue they would get the complete set of Jigsaw puzzle and they were instructed to solve that. After solving the puzzle they were given the clue to the treasure. The group from the English optional found the treasure first and they won the game. Various parts of the college were used for the clues. The game showcased the team work and coordination among the group members.









**27.School Acclimatization** 

School Acclimatization Programme is an inevitable constituent of the Kannur University Two Year B.Ed. Curriculum preferably conducted during the second semester of the course. It is beneficial to the student teachers for having a better understanding of schools prior to their teaching practice in the third semester. Student teachers are given opportunities to visit innovative centres of pedagogy and learning innovative schools/educational resource centres for a period of one week which enables them to get adapted to the school environment. During this period, prospective teachers shall observe classroom transactions but will not deliver any lessons. However, they may take up as works assigned by the teacher educators/school teachers/principals or get engaged in the classrooms whenever they are asked to do so. The programme focuses on four different dimensions:

a) School and its environment

- b) School dynamics
- c) Teaching learning process
- d) Understanding of children.

A close scrutiny and successful exploration of the above four mentioned dimensions by the student teachers is much essential to be a constructive teacher in the future.

The ten student teachers of the Mathematics Optional of 2022-24 batch of P.K.M. College of Education opted for eight different secondary schools in Kerala across three districts; Kannur, Kasaragod and Kozhikode.

Roll No.	Name of the Students	Name of the School	
2216	Akhila V	Moothedath Higher Secondary School, Kannur	
2217	Akshay G	Kuthuparamba Higher Secondary School, Kannur	
2218	Anu Maria Jacob	Holy Family Higher Secondary School, Rajapuram, Kasaragod	
2219	Archana K. N	Govt. Ganapath Vocational Higher Secondary School, Feroke, Kozhikode	
2220	Chaithanya C. K	Iritty Higher Secondary School, Kannur	
2221	Harikishor K. V	Kuthuparamba Higher Secondary School, Kannur	
2222	Jobina Jose	Holy Family Higher Secondary School, Rajapuram, Kasaragod	
2223	Liya	Secret Heart Higher Secondary School, Angadikkadavu, Kannur	
2224	SnehaDas D. S	Govt. Higher Secondary School, Kokkallur, Kozhikode	
2225	Zia R	Rajeev Gandhi Memorial Higher Secondary School, Mokeri, Kannur	

During the period of their school acclimatization programme the student teachers make use of the numerous opportunities which include observing classes of the teachers, getting them engaged in classes with small games, songs and motivating stories, interaction session teachers and students. They were also part of the discipline duty, examination duty, mid-day meal programme, coordinating Annual day programs and various other competitions.

#### 28.Micro Teaching

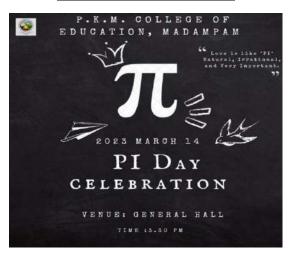
For learning various skills in Mathematics the teacher trainees of Mathematics department of PKM College took micro teaching classes under the guidance of Dr. Sholy Joseph K,Head of Mathematics department.

The topics handled by all the 10 teacher trainees is mentioned below.

SL NO.	NAME	DATE	TOPIC
1	Liya	02-03-2023	Ratio
2	Akhila V	02-03-2023	Angles

3	Anu Maria Jacob	02-03-2023	Rhombus
4	Snehadas D S	02-03-2023	Volume of rectangle
5	Harikishor K V	02-03-2023	Rectangles
6	Zia R	02-03-2023	Equilateral triangle
7	Chaithanya C K	03-03-2023	Negative numbers
8	Jobina Jose	03-03-2023	Parallel lines
9 Akshay G		03-03-2023	Area of Rhombus
10	Archana K N	09-03-2023	Circles

#### **29.PI Day Celebration**



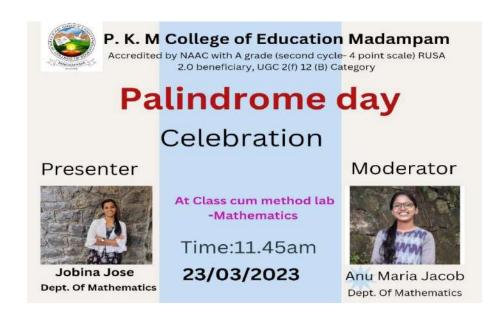
B.Ed Mathematics students of batch 2022-24 and 2021-2023 in association with Math lovers club of P.K.M College of Education, celebrated PI Day on March 14 2023, Tuesday at 3.30 pm at P.K.M College of Education , Madampam. Pi Day is an annual celebration of the mathematical constant  $\pi$  (pi). Pi Day is observed on March 14 (the 3rd month) since 3, 1, and 4 are the first three significant figures of  $\pi$ . It was founded in 1988 by Larry Shaw, an employee of the San Francisco, California science museum, the Exploratorium.

Math lovers club and Mathematics department of P.K.M. College of Education, conducted a programme to celebrate PI Day. Introductory remarks and welcome address was delivered by Anju T Mathew, student convener, Mathematics club. Presidential address was delivered by Dr. Prasanth Mathew, Vice Principal, PKM College of Education. By 3.45pm game section has started. There were games like memorization of digits in PI, solving rubik's cube, word search puzzles, and PI word game. All the teacher students of every department actively participated in every games. Finally at 4.10pm game section came to an end. Gifts for the winners were distributed by Jomol miss, Assistant professor, Natural Science and Veena Appukuttan, Assistant Professor, Social Science. Vote of thanks was delivered by Akhila V., student teacher, Mathematics.





#### **30.Palindrome day Celebration**



Mathematics department of PKM College of Education, Madampam organized a celebration on Palindrome day for first year mathematics student teachers on 23<sup>rd</sup> March 2023 at 11.45 AM in Mathematics class cum method lab.

Ms.Chaithanya C. K delivered the welcome address. Moderator Ms. Anu Maria Jacob gave an introduction to the programme. Ms. Akhila V delivered felicitation to the programme. Ms. Jobina Jose began the celebration by giving brief information about Palindrome day celebration. She mentioned about Palindrome days, Palindrome numbers, Palindrome words etc..

As part of the celebration, Ms. Jobina Jose conducted a competition which included puzzles and general questions on Mathematics. Also Ms. Akhila V gave the task to solve a riddle to all students. She ensured the active participation of all students. Ms. Liya proposed vote of thanks. The programme came to an end by 12.30 pm.













#### 31.Second semester seminar

The second semester started on 1<sup>st</sup> February 2023. During the second week of February, the teacher allotted topic for seminar to each student teacher in both papers Pedagogy of school subject -part 1 and Assessment for learning. The seminar topics are added below.

#### **Assessment for learning**

NO.	Student teachers	Date	Topics
1	Archana K N	20-02-2023	Data Analysis (13.1, 13.2, 13.3)
2	Akshay G	23-02-2023	Data Analysis (13.4, 13.5, 13.6, 13.7, 13.8)
3	Liya	06-03-2023	Trends in the assessment of students with disabilities
4	Chaithanya CK	09-03-2023	New trends in evaluation
5	Jobina Jose	11-03-2023	Assigning grades on the basis of classroom assessments and reporting
6	Akhila V	15-03-2023	Portfolios
7	Anu Maria Jacob	21-03-2023	Performance Assessment
8	Snehadas D S	22-03-2023	Types of tests
9	Harikishor K V	24-03-2023	Tools & Techniques for Evaluation
10	Zia R		



#### Pedagogy of school subject-Part 1

SI NO	STUDENT TEACHER	DATE	TOPIC
1	Archana K N	22-03-2023	Simulation
2	Anu Maria Jacob	24-03-2023	Text books, Hand Books & Work books

#### **Evaluation**

The planned programmes were successfully executed in this year.

