



SHRI G.P.M. DEGREE COLLEGE

DEPARTMENT OF MATHEMATICS

Vision..Innovation..Solution..Presentation

Quiz Competition: Mental Ability Math Test

22/09/2022

Mental ability will increase the ability to comprehend complex ideas, solve problems and apply learned skill through questions based on abstract reasoning, numerical reasoning and verbal reasoning. Department of Mathematics on 22 September 2022. This exciting quiz competition was designed to challenge Mental Ability, Visual Quiz, Problem Solving, Spot the Error and Rapid Fire of students and also to increase their interest in Math's. Before starting the quiz, rules were explained to the participants. Science student participated in the quiz competition. Mental ability quiz for 20 marks was undertaken for students in which 08 students participated.

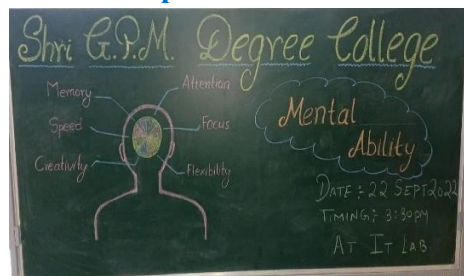
Event Details

Name of the Event : Mental Ability Math Test
Date : 22 September, 2022
Time : 03:30 pm to 04:30pm

Event Purpose

- Quick and informal assessment of student knowledge.
- These tests help students to develop their skills that are required at different exam stages to build up the careers.
- To enhanced the inquisitiveness of the students there by building confidence, mental prowess, and learning at the same time.
- The session helps to improve your competitive spirit.
- Develop critical thinking and teamwork skill.

Some Glimpse of the Event ...



Winner's

Heartiest congratulations to these winners ...

Group A	Vinayak Suthar (12JEE)
	Nisba Sayed (12SAIT)
Group B	Vedant Patil (12SCCOMSCI)
	Chirag Moolya (12SCCOMSCI)
Group C	Aaditya Pathak (12SAIT)
	Arif Shaikh (12SAIT)
Group D	Sahil Vishwakarma (12SDSOC)
	Mohammad Patel (11SAIT)

Winner's

Group A : Vinayak Suthar, Nisba Sayed

Outcome of the Event...

After participation in the event, our students gained with –

- The quiz with exceptional questions, challenges them, act as a learning tool and hone their critical thinking, analytical & observational skills.
- The event helped the students in identifying their capabilities and motivated them to learn and expand their knowledge.
- The participation certificate, a matter of pride, decorates their academics over a decade.

WISH U ALL, THE BEST.



SHRI G.P.M. DEGREE COLLEGE

DEPARTMENT OF MATHEMATICS

Vision..Innovation..Solution..Presentation

Presentation on Vedic Math's

08/09/2022

Vedic Math's or Vedic Mathematics is a collection of Methods or Sutras to solve numerical computations quickly and faster. It consists of 16 Sutras called Formulae and 13 sub-sutras called Sub Formulae, which can be applied to the solving of problems in arithmetic, algebra, geometry, calculus, conics, etc. Presentation on Vedic Math's was organized at Shri. G.P.M. Degree College (Andheri) on 8th Sep, 2022. In this Presentation total 16 students have participated from Junior as well as Degree College.

Event Details

Name of the Event : Presentation on Vedic Math's
Date : 08 September, 2022
Time : 10:00 am to 11:00 am

Event Purpose

The brain's capacity and its speed of calculations increases fivefold with the practice of Vedic math's. Application of Vedic math's in the simplification of numerical problems helps to solve the problems without paper and pens.

- It helps a student to solve mathematical problems many times faster.
- It helps in making intelligent decisions to both simple and complex problems.
- It reduces the burden of memorizing difficult concepts.
- It increases the concentration of a student and his determination to learn and develop his/her skills.
- It helps in reducing silly mistakes which are often created by student.

Some Glimpse of the Event ...



Outcome of the Event...

After participation in the event, our students gained with –

- It helped to boost confidence of the students.
- Students can get trained to utilize their tricks and skills for competitive exams and solve examinations more efficiently.
- This exercise betters their focus, memory & concentration. With the enhancements of these traits, children get developed on an all-round front.
- Students learn formulae that help them calculate at a faster rate and better speed & accuracy.

WISH U ALL, THE BEST.



SHRI G.P.M. DEGREE COLLEGE

DEPARTMENT OF MATHEMATICS

Perfection Comes by Practice

Webinar : National Mathematics Day

22/12/2021

A Webinar on National Mathematics Day was organized by the Department of MATHEMATICS on 22nd December 2021. This exciting webinar was designed to make awareness about our Indian mathematician Srinivasa Ramanujan and his contribution in the field of mathematics. The event was conducted online via ZOOM application and attended by 40 students.


Event Details

Name of Event : Webinar on National Mathematics Day
 Date : 22nd December 2021
 Time : 10:00 am to 11:00 am

Event Purpose

- To enlighten the glory of our Indian mathematician Srinivasa Ramanujan.
- To provide information about his life from childhood to adulthood and various achievements in his life.
- Difficulties he faced in his career due to lack of formal education.
- Role of G. H. Hardy in his life.
- Ramanujan's Magic Square.

Some Glimpse of the Event ...

	RECOGNITION	EARLY LIFE
	<ul style="list-style-type: none"> • Tamil Nadu celebrates 22 December as 'State IT Day' • Stamp released by the Govt. in 1962 • 22nd December celebrated as Ramanujan Day in Govt Arts College, Kumbakonam • National Symposium On Mathematical Methods and Applications (NSMMA) • SASTRA Ramanujan Prize 	<ul style="list-style-type: none"> • Born in Erode to K. Srinivasa Iyengar and Komalatmmal • Lived in Sarangapani Street in Kumbakonam • Went school first on 1.10.1892. • Had to switch primary school 3 times due to circumstances. • Completed Math exam in half the allotted time. • A synopsis of Elementary Results in Pure and Applied Mathematics. Book acknowledged in awakening the genius of Ramanujan. • Left college without a degree and pursued research in Mathematics. 

INTRODUCTION WITH G. H. HARDY	
	<ul style="list-style-type: none"> • G.H. Hardy was an academician at Cambridge University • He was a prominent English mathematician, known for his achievements in number theory and mathematical analysis. • Later on Ramanujan wrote to G.H.Hardy • Hardy recognised some of his formulae but other "seemed scarcely possible to believe". Some of them were – $\int_0^{\infty} \frac{1+x^2/(b+1)^2}{1+x^2/(a)^2} \times \frac{1+x^2/(b+2)^2}{1+x^2/(a+1)^2} \times \dots dx = \frac{\sqrt{\pi}}{2} \times \frac{\Gamma(a+\frac{1}{2})\Gamma(b+1)\Gamma(b-a+\frac{1}{2})}{\Gamma(a)\Gamma(b+\frac{1}{2})\Gamma(b-a+1)}$
Relating to infinite series -	$1 - 5\left(\frac{1}{2}\right)^3 + 9\left(\frac{1 \times 3}{2 \times 4}\right)^3 - 13\left(\frac{1 \times 3 \times 5}{2 \times 4 \times 6}\right)^3 + \dots = \frac{2}{\pi}$ $1 + 9\left(\frac{1}{4}\right)^4 + 17\left(\frac{1 \times 5}{4 \times 8}\right)^4 + 25\left(\frac{1 \times 5 \times 9}{4 \times 8 \times 12}\right)^4 + \dots = \frac{2^{\frac{3}{2}}}{\pi^{\frac{1}{2}}\Gamma^2\left(\frac{3}{4}\right)}$

RAMANUJAN'S MAGIC SQUARE

22	12	18	87
88	17	9	25
10	24	89	16
19	86	23	11

This square looks like any other normal magic square. But this is formed by great mathematician of our country – Srinivasa Ramanujan.

What is so great in it?



Outcome of the Event...

- All students celebrated National Mathematics day by their active participation in webinar.
- Students were amazed to know about the achievements accomplished by Ramanujan at such young age in spite of so many difficulties.
- How his research work was acknowledged in Cambridge University similarly if any student pursue his career with utmost dedication and hard work he will be appreciated at every stage of his life.
- Students realise whenever you go to study abroad you have to face many challenges and adjustments in order to settle down and build a career in that country.
- Students understood Ramanujan's Magic Square, how total of all rows and column turns out to be a same number, addition of diagonals are also same. The first four numbers of first row is the birth date of Srinivasa Ramanujan.

WISH YOU ALL THE BEST.



SHRI G.P.M. DEGREE COLLEGE

DEPARTMENT OF MATHEMATICS

Perfection Comes by Practice

Quiz Competition: Mental Ability Math Test

24.09.2021

An Intra-College quiz competition was organized by the Department of Mathematics on 21st September 2021. This exciting quiz competition was designed to challenge Mental Ability, Visual Quiz, Problem Solving, Spot the Error and Rapid Fire of students and also also to increase their interest in Math's. Before starting the quiz, rules were explained to the participants. SYJC – Science student participated in the quiz competition. Mental ability quiz for 20 marks was undertaken for students of SYJC in which 21 students participated.

Due to the covid pandemic, the event was conducted online **via Google form.**

Event Details

Name of Event : Mental Ability Math Test
Date : 21st September, 2021
Time : 4:00 pm to 5:00 pm

Event Purpose

- Quick and informal assessment of student knowledge.
- These tests help students to develop their skills that are required at different exam stages to build up the careers.
- To enhanced the inquisitiveness of the students there by building confidence, mental prowess, and learning at the same time.

Heartiest congratulations to these winners ...

Rank-1	ABHAY PRAJAPATI(12SCCOMSCI/08)
Rank-2	MOH SAUD FAEOOQ MALLAJI (12SAIT/02)
Rank-2	CHATALI DILIP SAWANT(12SCCOMSCI/08)
Rank-2	OMKAR ADAGALE(121CIMTR/01)
Rank-3	CHRISTINA PINTO(12CAHNSP/10)

Some more glimpses of the event ...



Outcome of the Event

After participation in the event, our students gained with -

- The quiz with exceptional questions, challenges them, act as a learning tool and hone their critical thinking, analytical & observational skills.
- The event helped the students in identifying their capabilities and motivated them to learn and expand their knowledge.
- The participation certificate, a matter of pride, decorates their academics over a decade.

WISH U ALL THE BEST.



SHRI G.P.M. DEGREE COLLEGE

DEPARTMENT OF MATHEMATICS

Perfection Comes by Practice

Webinar: Vedic Mathematics

12/09/2021

A Webinar on Vedic Mathematics was organized by the Department of MATHEMATICS on 8, 9 and 11 September 2021. This exciting 3 day workshop of webinar was designed to make awareness about Vedic mathematics and its importance in our academics studies. How does it helps to improve speed in calculations. We taught different methods for faster mathematical calculations which will help them in various entrance and competitive exams.

Due to the Covid pandemic, the event was conducted online via ZOOM.

Event Details

Name of Event	: Webinar on Vedic Mathematics
Date	: 8 September, 2021 (DAY 1)
Time	: 1:30 pm to 2:30 pm
Date	: 9 September, 2021 (DAY 2)
Time	: 1:30 pm to 2:30 pm
Date	: 11 September, 2021 (DAY 3)
Time	: 1:30 pm to 2:30 pm

Event Purpose

- To provide aid in faster calculation.
- To introduce various methods of multiplications without using calculators and getting answers in less than 1 minute.
- To introduce various methods to find squares of two and three digit numbers in less 20-30 seconds.
- To introduce a relation in percentage and fractions for solving percentage problems quickly.
- To make students aware about question that are asked in competitive exams where they can use Vedic Mathematics to solve problem in lesser time with smart and efficient techniques.

Some Glimpse of the Event ...

MULTIPLICATION TRICK WHEN SUM OF UNIT DIGIT IS 10

$$\begin{array}{r} \overset{(3+1)}{\times} \\ 34 \times 36 = 424 \\ \hline 4+6=10 \quad (3 \times 4) \quad (4 \times 4) \end{array} \quad \begin{array}{r} \overset{(6+1)}{\times} \\ 63 \times 67 = 4221 \\ \hline (6 \times 7) \quad (7 \times 3) \end{array}$$
$$\begin{array}{r} \times \\ 42 \times 48 = 2016 \\ \hline 2+8=10 \quad (4 \times 5) \quad (2 \times 8) \end{array} \quad \begin{array}{r} \times \\ 92 \times 98 = 9016 \\ \hline (9 \times 10) \quad (2 \times 8) \end{array}$$

MULTIPLICATION TRICK FOR 11

$$\begin{array}{r} 45 \times 11 = 495 \\ \swarrow \quad \searrow \\ 4 \quad (4+5) \quad 5 \end{array} \quad \begin{array}{r} 64 \times 11 = 704 \\ \swarrow \quad \searrow \\ 6 \quad (6+4) \quad 4 \end{array}$$
$$\begin{array}{r} 31 \times 11 = 341 \\ \swarrow \quad \searrow \\ 3 \quad (3+1) \quad 1 \end{array} \quad \begin{array}{r} 58 \times 11 = 638 \\ \swarrow \quad \searrow \\ 5 \quad 3 \quad 8 \end{array}$$
$$\begin{array}{r} 13421 \times 11 = 147631 \\ \swarrow \quad \searrow \\ 1 \quad 4 \quad 7 \quad 6 \quad 3 \quad 1 \end{array} \quad \begin{array}{r} 324172 \times 11 = 3565892 \\ \swarrow \quad \searrow \\ 3 \quad 5 \quad 6 \quad 5 \quad 8 \quad 9 \quad 2 \end{array}$$

MULTIPLICATION TRICK WHEN SUM OF UNIT DIGIT IS 10

$$\begin{array}{r} \overset{(3+1)}{\times} \\ 34 \times 36 = 424 \\ \hline 4+6=10 \quad (3 \times 4) \quad (4 \times 4) \end{array} \quad \begin{array}{r} \overset{(6+1)}{\times} \\ 63 \times 67 = 4221 \\ \hline (6 \times 7) \quad (7 \times 3) \end{array}$$
$$\begin{array}{r} \times \\ 42 \times 48 = 2016 \\ \hline 2+8=10 \quad (4 \times 5) \quad (2 \times 8) \end{array} \quad \begin{array}{r} \times \\ 92 \times 98 = 9016 \\ \hline (9 \times 10) \quad (2 \times 8) \end{array}$$

MULTIPLICATION TRICK FOR NUMBERS CLOSE TO 100

$$\begin{array}{r} 94 \times 97 = 9118 \\ \begin{array}{r} 94 \times 6 \\ 97 \times 3 \\ \hline 91 \quad 18 \end{array} \end{array} \quad \begin{array}{r} 92 \times 96 = 8832 \\ \begin{array}{r} 92 \times 8 \\ 96 \times 4 \\ \hline 88 \quad 32 \end{array} \end{array}$$
$$\begin{array}{r} 102 \times 104 = 10608 \\ \begin{array}{r} 102 \times 2 \\ 104 \times 4 \\ \hline 106 \quad 08 \end{array} \end{array}$$



Outcome of the Event...

After participation in the webinar, our students gained with -

- How useful it is to learn Vedic Mathematics.
- How can they use these methods to solve complicated mathematical calculation in a blink of eye.
- They have enjoyed this session and were really interested to learn more about this field.
- The participant gave very good and quick feedback whenever any question was asked in webinar regarding calculations.
- Both Junior and Degree students have participated and learned so many helpful tricks that can ease their calculations and give them edge over other students in competitive exams. Type equation here.

WISH U ALL THE BEST.