

GYAN VIGYAN SARITA:शिक्षा

A Non-organizational, Non-remunerative, Non-commercial and Non-political Initiative
To Mentor Unprivileged Children with a Sense of Personal Social Responsibility (PSR)

Monthly e-Bulletin GyanVigyanSarita:शिक्षा September 01, 2020 (60th Issue)



Happy Teachers' Day



Stay Home

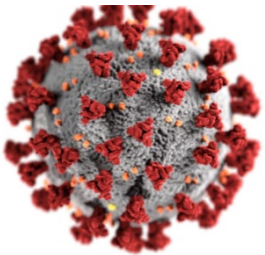
Stay Safe

Stay Healthy

Distance Socially

Keep Growing and Involve in Other's Growth

Let us Conquer CORONA, Collectively and Globally



कोरोना महामारी: चुनौतियों को अवसर में बदलें

(निम्न सन्देश व्हाट्सअप पर खूब चल पड़ा है। इस बार यह सन्देश कार्यरत मजदूरों के चित्र के साथ है, जिससे समाचार की विश्वसनीयता बढ़ जाती है। इस घटना का सत्यापन हम नहीं कर सके, परन्तु सम्बंधित प्रेरणात्मक, सन्देश प्रशंनीय एवं अनुकरणीय है।)

राजस्थान के सीकर में एक गांव के प्राथमिक स्कूल में मजदूरों को कॉरेंटाइन में रखा गया था।

उन मजदूरों ने देखा कि दो दशकों से स्कूल की पेंटिंग नहीं हुई है, साफ सफाई नहीं हुई है। तब उन मजदूरों ने सरपंच के सामने पेंटिंग करने का प्रस्ताव रखा।

तुरंत ही पेंट, चूना, ब्रश इत्यादि का इंतजाम हुआ और उन मजदूरों ने अपने कॉरेंटाइन के दौरान पूरे स्कूल की शक्ल सूरत बदल दी।

और इसके लिए उन्होंने कोई पैसा नहीं लिया बल्कि सरपंच से कहा कि हम यहां पर हैं मुफ्त में खा रहे हैं, तब हमारा फर्ज है कि हम कुछ न कुछ इस स्कूल को दें।



नैतिक सन्देश: दूसरी ओर कुछ लोग सामाजिक-दूरी और लॉकडाउन के निर्देशों का उल्लंघन के साथ कोरोना-जाँबाजों से अभद्र व्यवहार या उन पर हमला करने व उसका औचित्य ठहराने में शौर्य का अनुभव कर रहे हैं, जो कि इस गंभीर वैश्विक विपदा के समय सर्वथा निंदनीय है। उन मजदूरों की सोच प्रशंसनीय और इनकी जिम्मेदारी का बोध अनुकरणीय है। साथ ही उस गांव के सरपंच, शाला प्रधान और कर्मचारियों का आगे बढ़कर श्रमिकों को आवश्यक सुविधा प्रदान कर प्रोत्साहित करना भी प्रशंसनीय है।

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Editor: Gyan Vigyan Sarita – शिक्षा, e-Bulletin: **Dr SB Dhar**

Coordinator-Gyan Vigyan Sarita: Dr Subhash Joshi

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Address: #2487, Betina, Mahagun Moderne, Sector-78, NOIDA, Uttar Pradesh, PIN: 201309,, (INDIA).

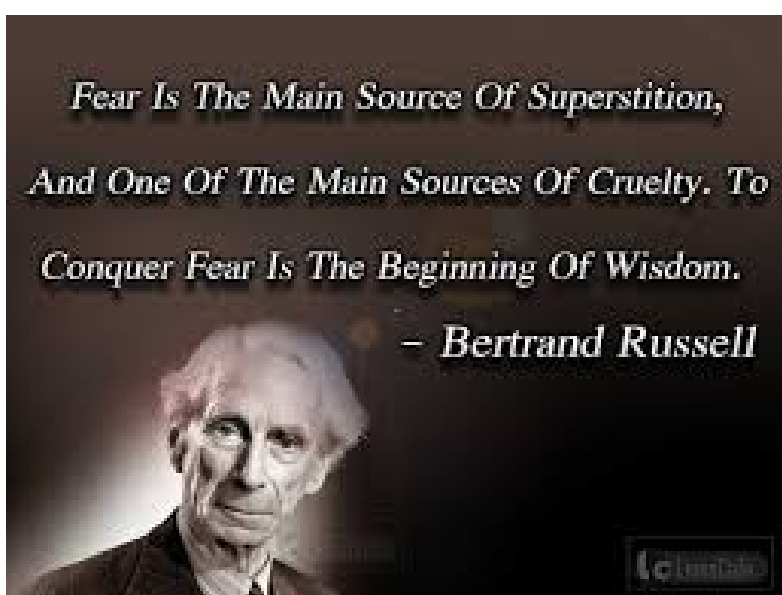
Website: <http://www.gyanvigyansarita.in/> **Blog:** GyanVigyanSarita

 : [GyanVigyanSarita.Gvs](https://www.facebook.com/GyanVigyanSarita.Gvs); e-Mail ID: subhashjoshi2107@gmail.com;
(M): +91-9711061199 (LL): 0120-4969970

—00—

Thrill is in the journey and not the destination. The only treasure at destination is sweet memories of adventure with passion, patience, pursuance and perseverance and last but not the least the inspiration to start a new journey.

—00—



—00—

*Atm at the Best, but...***Conceptual Representation
of**

Online Mentoring
An Initiative To Bridge Gap between
Passionate Teachers
and
Desperate Students
A Selfless Endeavour
to
Democratize Education
with a sense of
Personal Social Responsibility (PSR)

**An Ideal Smart Training hall****Online Mentoring
From Texas****Equipments at Learning
Center**

1. Desk-Lap-top
 2. WebCam
 3. A Mixer-cum-amplifier with Speakers and Wireless Microphone
 5. Overhead Projector.
 6. UPS (For Continuous Power Supply to computer, internet modem and L&F)
- AND**
 Broadband-Internet Connection:

**Equipments at Mentoring
Center**

1. Desk-Lap-top
 2. WebCam
 3. Headset with Microphone
 4. Digital Pen
- AND**
 Broadband-Internet Connection

Cloud Internet
(Linking platform: cloud based with as low bandwidth as possible for seamless connectivity of audio-video-whiteboard across all Six nodes. Presently Google Hangouts is in use)

**Mentoring Centre****Screen-Sharing
From
Mentoring Centre
To
Learning Centre****Learning Centre****Mentoring-cum-
Learning Centre
(Demo)****Important Links**

1. Good Internet Connectivity (Wired Broadband Connection)
2. Subject-wise Coordinator for Each Session to Bridge Learning Gaps between Mentor & Students

**Special Features**

1. Free and Open to all to adopt. Modify, change, correct
2. Welcomes participation, promotion and facilitation on Zero-Fund-Zero-Asset (ZFZA) basis
3. More details on Technological and Operational – please write on <http://www.gyanvigyansarita.in/contact/>

**Set-up
at
Learning Centre****Learning Centre
Directly on
Desktop****Projector
Connected to
Computer****Learning Centre
With Projector
Display****... start, without losing time, with whatever is available**

Infrastructural requirement for Centres in Interactive Online Mentoring Sessions (IOMS)

Learning Centre (if asked for by Mentor)		Mentoring Centre (if asked for by Mentor)	
Estimated Capital Cost (One Time)			
Particulars	Cost (in Rs)	Particulars	Cost (in Rs)
Desktop (without monitor)	20,000	Laptop	25,000
Projector	9,000	Projector	-
Web camera	2,000	Web camera	-
Mixer cum amplifier with Speaker and Wireless microphones	14,000	Headset with Microphone	3,000
Total (Max. if nothing is available)	45,000	Total	28,000
Wireless Surface Writing Device (WSWD). It shall be required when Learning Centre is ready for collaborative use of Whiteboard.	15,000	Wireless Surface Writing device	15,000
Total with Total with WSWD (<i>at a later date once IOMS stabilizes</i>)	60,000	Total with Total with WSWD	43,000
Estimated Recurring Cost			
a. Internet charges, based on estimated monthly data transfer which depends upon choice of cloud platform, and tariffs of ISP b. Cloud Platform Charges, to be shared across Learning Centres		Internet charges, based on estimated monthly data transfer which depends upon choice of cloud platform, and tariffs of ISP	
Cloud platform: Microsoft Teams, extended by Ramakrishna Mission, Vijaywada for this selfless initiative, covering their students also, is being used. The platform is found to be suitable in prevailing requirement of social distancing. This will suit even after LockDown when students continue to get mentored in an uninterrupted manner even after situation becomes normal.		IOMS is since an initiative driven with Personal Social Responsibility (PSR) operating on Zero-Fund-&Zero-Asset (ZFZA) basis. The IT Infrastructure with the Mentors has been in use and is working. But, at any stage if upgradation becomes essential, support of facilitators or learning centres would be gratefully welcomed, on ZFZA basis, to maintain continuity of this selfless initiative. Operating cost of Mentor, if required, shall be supported by Learning Centres	

Specification: These are based on ground level operating experience and need of optimizing the cost on the initiative. This is essential to utilize financial resources, considered scarce, for benefitting more number of students at more number of centres and mentoring centres. These specifications have been updated based on experience of operation of IOMS with available options. MS WhiteBoard a free App of MS office has been tried out in IOMS and is found satisfactory, until a better option is available.

Web Camera: iBall 20.0 HD with a wall mounting

Projector: Portronics POR 624 LED Projector Beam 100 Lumen, Screen Size 130 Inch, 800x480px resolution

Sound System: Ahuja Make PA Mixer Amplifier Model DPA-370, 30 W Max/37W Max, with PA wall speakers PS-300T 10W, and a wireless unit AWM-490V2 Dual Cordless Microphones. This sound input/out when decoupled with USB sound adopter to connect to the computer required echoless environment is achieved in the Classroom and networked mentor and Learning Centres.

Cloud Platform: Ramakrishna Mission, Vijaywada, with whom we are in Fourth Year of association through *Interactive Online Mentoring Sessions (IOMS)* for students of RKM School, Sitanagram, AP. They have extended this facility for mentoring students being mentored in this initiative as Guest participants. It offers uninterrupted sessions to the students registered for this purpose. It suits to mentor students staying at home, during social distancing. Alternately, other freewares viz. Google Meet, or other Indian products like SayNamaste and others coming up can be used.

Surface Writing Device: HUION make Model WH1409, or Wacom model Intuos with wireless device makes it suitable for communication with base computer in class in an interactive online environment.

UPS: An additional accessory, for uninterrupted continuity of session, based on power availability to be decided by Learning Centre, **not included in above cost estimates.**

Furniture and Lighting: At Learning Centre, as deemed fit by local administration of Learning Centre, **not included in above cost estimates.**



संपादकीय

गरिमामय वैश्विक शैक्षिक पटल पर भारत की अनुपस्थिति क्यों?

भारत एक विशाल देश है। शिक्षा के क्षेत्र में भारत का अतीत अत्यंत गौरवशाली रहा है। प्राचीन भारत में विश्व प्रसिद्ध नालंदा और तक्षशिला जैसे विश्वविद्यालय विद्या-अर्जन के केंद्र रहे हैं।

यह आश्चर्य की बात है कि स्वतंत्रता के 73 वर्षों के बाद भी भारत में जहां 49 केंद्रीय विश्वविद्यालय हैं, 367 से अधिक राज्य विश्वविद्यालय हैं, 123 डीम्ड यूनिवर्सिटी हैं, 282 से अधिक प्राइवेट विश्वविद्यालय हैं, 1602 से अधिक इंजिनियरिंग कालेज हैं, 23 आईआईटी हैं, 31 एनआईटी हैं, 542 मेडिकल कालेज हैं, और 64 पोस्टग्रेजुएट इंस्टिट्यूट हैं, इनमें से कोई भी संस्थान विश्व की शैक्षणिक संस्थानों की वार्षिक रैंकिंग में 10 की बात कौन करे, 100 में भी अपना स्थान नहीं बना पाता है।

पहली आईआईटी 1951 में खड़गपुर में स्थापित हुयी। अपनी स्थापना के 7 दशक बीत जाने पर भी विश्व रैंकिंग में आईआईटी 401वें स्थान पर है। सबसे चर्चित आईएससी बैंगलोर जिसकी स्थापना 1909 में हुयी 301वें स्थान पर है।

आखिर क्या कारण हैं कि हमारे देश में गणित के क्षेत्र की विश्व की सबसे बड़ी उपलब्धि फील्ड मेडल कोई नहीं पाता है?

आखिर क्या कारण है कि कोई भारतीय अनुसंधानकर्ता भौतिकी, रसायन, अथवा मेडिसिन (चिकित्सा) के क्षेत्र में नोबेल पुरस्कार नहीं पा सका?

क्या इसका सीधा कारण यह नहीं है कि हमारे शिक्षक अपनी-अपनी यूनिवर्सिटीज में पढ़ाने अथवा रिसर्च के कामों में रूचि नहीं लेते हैं?

क्या यह सच नहीं है कि हमारे इंजिनियरिंग कालेज अथवा यूनिवर्सिटी अपने छात्रों को वास्तविक टेक्नीकल ज्ञान नहीं दे पा रही हैं?

क्या कारण है कि हमारे छात्रों को फार्मूला तो आता है पर उसका अप्लीकेशन समझ में नहीं आता है?

हम एक तथ्य रखते हैं जो हमारी आंखें खोलने के लिये पर्याप्त है। अब तक गणित के क्षेत्र में उत्कृष्ट योगदान के

लिये जो भारतीय फील्ड मेडल पाये हैं उनमें से किसी की नागरिकता भारतीय नहीं है।

हां, उनमें से कुछ भारतीय मूल के अवश्य हैं। जैसे-मंजुल भार्गव जिन्होंने 2014 का फील्ड मेडल जीता, वह कनाडियन-अमेरिकन हैं, प्रिंसटन यूनिवर्सिटी और हार्वर्ड यूनिवर्सिटी में पढ़े हैं। आज भी प्रिंसटन यूनिवर्सिटी अमेरिका में ही पढ़ाते हैं।

दूसरा नाम है-अक्षय वेंकटेश का। इनको 2018 का फील्ड मेडल मिला था। इनका जन्म दिल्ली में हुआ परंतु जब ये दो साल के थे, इनके माता-पिता इनको लेकर ऑस्ट्रेलिया चले गये। इनकी शिक्षा भी प्रिंसटन यूनिवर्सिटी में हुयी और इनकी नागरिकता भी ऑस्ट्रेलियाई है।

हम बताते चलते हैं कि फील्ड मेडल विश्व में गणित का सबसे बड़ा पुरस्कार है। यह हर चार वर्ष के बाद दिया जाता है। इसकी शर्त है कि पाने वाले की उम्र चालीस वर्ष से कम होनी चाहिये। यह केवल गणित में उत्कृष्ट योगदान के लिये दिया जाता है। यह 1936 से लगातार दिया जा रहा है। इसे गणित का नोबेल पुरस्कार भी कहा जाता है।

अब हम नोबेल पुरस्कार की बात करते हैं। भौतिकी के क्षेत्र में नोबेल पुरस्कार विजेता सर सीवी रमन एकमात्र भारतीय नागरिक हैं जिनको 1930 में भौतिकी के लिये नोबेल पुरस्कार मिला था।

जो अन्य भारतीय वैज्ञानिक नोबेल पुरस्कार पाये, वे केवल जन्म से भारतीय हैं, शिक्षा अथवा शिक्षा के क्षेत्र में कार्य से नहीं।

1968 में हरगोविंद खुराना को मेडिसिन (चिकित्सा) के लिये नोबेल पुरस्कार मिला, वह अमेरिकी नागरिक हैं।

1983 में सुब्रमळ्यम चंद्रशेखर को भौतिकी का नोबेल पुरस्कार मिला, वह अमेरिकी नागरिक हैं।

2009 में वेंकी रामकृष्ण को रसायन का नोबेल पुरस्कार मिला, वे अमेरिकी व ब्रिटिश नागरिक हैं और अपनी शिक्षा वहीं से ग्रहण किये हैं।

आखिर वह दिन कब आयेगा जब भारत में जन्में, भारत में पढ़े छात्र, भारत में ही की गयी शोध के आधार पर, अपनी

प्रतिभा व अपने शिक्षकों की शिक्षा के बल पर फील्ड मेडल अथवा विज्ञान के क्षेत्र में नोबेल पुरस्कार पायेंगे?

हमारे शिक्षण संस्थान कभी वैश्विक स्तर के विश्वविद्यालयों से कुछ सीखते नहीं हैं कि आखिर क्यों कैंब्रिज, हार्वर्ड, आक्सफोर्ड, एमआईटी आदि आज भी वर्षों बाद विश्व स्तरीय बने हुये हैं?

जार्ज टेवेलियान 19वीं शताब्दी के ब्रिटिश शिक्षाविद् थे और कैंब्रिज विश्वविद्यालय के प्रोफेसर रहे थे। उनका मानना था कि शिक्षा ने ऐसी बहुत बड़ी आबादी पैदा कर

दी है जो पढ़ तो सकती है पर यह नहीं पहचान सकती है कि क्या पढ़ने लायक है।

ज्ञानविज्ञानसरिता, व्यावसायिकता से हटकर विगत कई वर्षों से विज्ञान व गणित की निःशुल्क आनलाइन शिक्षा अपने सामाजिक दायित्व के तहत दे रहा है।

आइये, हम भी समाज तथा देश की शैक्षिक गुणवत्ता को बढ़ाने में अपने अनुभव व अपनी शैक्षणिक योग्यता से सहयोग करें।

जयहिंद, जय भारत!

—00—

CORONA virus has become a global disaster. Though it is stated to have originated in China, the most populous country, yet, it has been the FIRST to contain it.

How China could do it?

It is important for us to learn from China.

They firmly implemented shutdown, without exception. China has a different kind of socio-political system, to be able to do that.

In a democracy like ours, for the success of such shutdown, people's participation is a must. It requires to respect need of survival and coexistence above personal, social, geographical, communal and political preferences.

It is a time for all of us to know, think, introspect and decide upon priority between coexistence, and personal liberty vis-à-vis human rights. We need to ask ourselves - what for are the human rights?

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Let us be honest and judicious about the priority and its implementation. Let us exercise patience to bear order of the day unambiguously.

Instantly, at times curtailing human liberties may appear to be cruelty. But, such a cruelty if self-inflicted, brings home altogether a different experience. It is vouched from first-hand realizations that such self-impositions build a kind of resilience and a self-discipline, necessary to accomplish tasks which are apparently impossible. It helps to reap thrill of survival, and an ability to grow in tougher times.

Without this, all the talks of human liberty may turn out to be only cosmetic.

Let us stay safe, impose self-restrictions and collectively emerge as victorious nation.

It is time to patiently and bravely capitalize this disaster, like any other challenge, as an opportunity to carve better times ahead all human beings...

May GOD bless us all...

—00—

Isaac Newton discovered gravity while in Quarantine during Plague Epidemic



Isolation is good for creative ideas. So use that time wisely .

Be Like Newton. Seek The Truth !

*Very relevant when globally, we are fighting to survive out of
CORONA*

—00—

Never let crisis go to waste

- Winston Churchill

INVITATION FOR CONTRIBUTION OF ARTICLES

Your contribution in the form of an article, story poem or a narration of real life experience is of immense value to our students, the target audience, and elite readers of this Quarterly monthly e-Bulletin **Gyan-Vigyan Sarita: शिक्षा**—and thus create a visibility of the concerns of this initiative. It gives target students a feel that you care for them, and they are anxiously awaiting to get benefitted by your contributions. We request you to please feel free to send your creation, by 20th of each month to enable us to incorporate your contribution in next bulletin, subhashjoshi2107@gmail.com.

We will be pleased to have your association in taking forward path our plans as under-

- With the the release of 1st Monthly e-Bulletin in its consecutive Fourth Year, we are gearing up for next Monthly e-Bulletin **Gyan-Vigyan Sarita: शिक्षा** due on 1st of ensuing month.
- This cycle of monthly supplement e-Bulletin **Gyan-Vigyan Sarita: शिक्षा** is aimed to continue endlessly, till we get your तन and मन support in this selfless educational initiative to groom competence to compete among deprived children.

Formatting Guidelines: (a) Paper Size A4, (b) Fonts: Times Roman (English), Nirmala UI (Hindi), (c) Font Size Title/Author Name/Text: 14pt/12pt/10 pt (d) Margins: top/bottom/left/right – 1”/1”/0.4”/0.4”, (e) Photoprofile of author – In 4-5 lines with mail ID and Photo. We will be pleased to provide softcopy of template of an article, in MS Word to the author on advise.

We believe that this e-Bulletins shall make it possible for our esteemed contributors to make its contents rich in value, diversity and based on their ground level work and/or experiences.

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We have learnt that LIFE is neither fast nor sudden leaps;

It grows gradually and sreadily through pits and rises.

We have learnt on every fall; more was needed from us;

Irrespective of how others were.

We have learnt that when tide is against, swim hardest to keep moving ahead;

When in favour swim fastest to create a reserve in case of contingencies.

We have also learnt that reasons are in abundance to justify losses,

But there is only ONE reason to do good beyond self.

LIFE is MUST for sustainable coexistence.

—00—





Coordinator's View

Teacher-Student: Guru-Shishya

Learning is continued since birth until last breadth. Yet in many cultures, conditioning of parents into spiritual, cultural or an environment conducive for growth is advised to couple aspiring to go into a family way is advised; that how many rituals are in place in different cultures. Moreover, a pregnant mother is subject to special care and environment for desirable growth of the child in her womb. Process. Thus, right from parents even environment everything is a source of informal learning of every child who is totally unaware of it.

India is one of the oldest cultures. Upto an age of five to seven years a child learns in domestic circle. Thereafter, as per an established ceremony called *Upnayan Sanskar* used to be performed. This is steppingstone of the child into a stage of celibacy called *Brahmacharya*. This stage is dedicated to learning by stays under guardianship of his Guru called *Gurukul*. In this Gurukul children of king and popper, who were desirous of learning, called Shishya, stayed within minimum resources without discrimination. After attainment of knowledge and skill to the satisfaction of Guru, he through a ceremony called *Deekshant Samaroh*, liberate his shishya to practice the learning in Gurukul in rest of his life. Financial model of the Gurukul was alms received during door-to-door visits as a part of daily routine, and collection of fruits and fuel from forest yield. These duties were assigned to shishya without discrimination. This process inculcated humility in addition to learning among students. Shishya based on their capability made some offering to their guru during Deekshant Samaroh based on their capability and reach. This offering was necessarily in form of cash or coin; it could be even a promise to perform a certain task or duty after leaving Gurukul. Thus, the Guru-Shishya tradition had survived as bondage between them not only during their lifetime but perpetuated across generations as an integral part of the culture. This is evident from the fact that even today Guru Purnima, is annually celebrated. It has become a part of culture. It is celebrated on the day having, full moon night in the Ashadha month of Indian Calender. It is related to birthday of Ved Vyas, the ancient sage who created Vedas and Mahabharata. Obviously, Guru-Shishya tradition is set deep into the Indian Culture.

On one hand, the role of Guru was volunteered by those who had during long and tedious austerity acquired skills and wisdom. On the other hand, Guru was an honour bestowed upon accomplished persons passionate to use their accomplishments for the larger good and without discrimination. Use of the attainment to meet their own ends was never their objective. Thus being a Guru was

not an assigned duty but a responsibility, for the larger good, a reflection of their wisdom. The Gurus were individuals, human aberrations with passage of time cannot be ruled out. They being intelligent persons had their own justification for their acts or decisions, in particular situations, despite being subject of criticism. Nevertheless, it formed backbone of excellence in ancient Indian culture.

As the human civilization has grown, there is growth in knowledge both in dimension and in diversity of domains. This has evolved learning environment from an informal to formal structure, methods and practices of imparting knowledge and facilitate learning. Learning in this new format is called education. Guru have been replaced by Teacher, Gurukul is replaced by schools and colleges; rare are the shishya instead there are students which in literal sense in Hindi is Vidhyarthi (Vidhya + Arthi) meaning a person desirous of knowledge. This is just change of nomenclature, it has changed the whole paradigm of learning for excellence and wisdom; it has drifted orientation to from passion, dedication to commercial objectives; responsibility to duty and it is growing spirally in an unabated manner. In this scenario emphasis of education is on marks leading to rote learning, acquiring position and power, amassing wealth and enlarging sphere of influence....

New Education Policy-2020 (NEP) crafted by some of the best brains of the country has pointedly expressed concern to discourage rote learning and infuse in young mind ability to think, correlate it with their environment and develop skills of applying the learning. The NEP talks of streaming in social volunteers and initiatives into educational institutes. It also talks of making teacher a highly esteemed position in social culture. It is believed that the NEP is a reform which neither government, not academic institutions can accomplish singularly. It requires collective complementing of efforts, to change future of country.

Teacher-Student is a time relevant relationship; it exists in present tense as long as barter for education continues, soon after it goes into past tense. Future of a teacher and a student is disjoint. A duty bound always bears a proportionate compensation. There are instances when compensation is considered to be inadequate, it starts reflecting in performance, discontent and behavioural changes. On the contrary in Guru-Shishya culture there is no place for compensation. Now when civilization has progressed irreversibly any effort of educational reform cannot be confined into finely phrased document. It

requires collective will of every citizen irrespective of age, position or power to make the transform a ground reality.

It is relevant here to correlate that stimulus to duty is motivation. In management parlance motivation starts from carrot-&-stick principle to anything that helps meet and end; it is materialistic in nature. Whereas, stimulus to responsibility is inspiration which can be anything from self-conviction to self-actualization, the latter is spiritual in nature.

Let us all envision an educational environment where teacher is like Guru, who aims at making learning of his Shishya better than himself. He tries to achieve this by removing all unproductive hurdles in the learning process, at the same time he **imposes challenges** to Shishya in this pursuit to reach a stage **par excellence**. It requires high and indomitable will-power, thoughtful determination and perseverance. Likewise, students, irrespective age and position, submit themselves to their Guru to acquire knowledge to inculcate wisdom. The wisdom offers shade to needy, reaps fragrance of flowers and nutrition in fruits to the entire environment.

Prevalent pandemic, has further escalated the challenges. The need of social distancing has forced to move into Online Education. None of the countries were prepared to meet the transition, and the crucial challenge? Moreover, weak personal links between teacher and student, in our country, due to multiple the disconnect between them has been further jeopardized. This is creating an educational divide among those who can afford technology and communication and those who cannot. Moreover, in a country of our size and demographic diversity a large gestation period to prepare for the new educational environment is not an pessimistic estimate. These

preparations are to build online teaching skills among teachers, and groom online learning capabilities among, preparing parents to respond to the online education and last but not the least ramp up the IT infrastructure to support the Online Education. Period until these preparations are in place there would be further widening of the educational gap, and is scary. Yet, yet we cannot remain complacent. We expect government, administration, educational establishments and all stake holders, that they would accept these challenges to bridge the gap, in a possibly fastest and efficient manner.

Amidst all these challenges, voluntary role of elites to complement efforts of educational initiative in the country is a crucial need, and has been emphasized by us on multiple occasions in the form of **Personal Social Responsibility (PSR)**.

If this can happen, we are sure that we elites, especially senior citizens, who are physically, intellectually and financially self-sufficient, will have justified longevity of their old age, a true Gift of GOD.

Conclusions: Here we are inclined to recall **Serenity Prayer** –

God, grant me the serenity to accept the things

I cannot change;

Courage to change the things I can;

And wisdom to know the difference.

*Everyone with his own rights and capacity is a teacher. We wish all **Happy Teachers Day** with a conviction that we would rise up usher in a transform which will make our descendent to feel proud of legacy that we will leave behind, as much they would grow in diversity with peace and prosperity, while complementing each other.*

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**None of us got where we are solely by
pulling ourselves up by our bootstraps.**

- Thurgood Marshall

An Appeal: for Interactive Online Mentoring Session (IOMS) at your establishment

By Gyan Vigyan Sarita – A non-organizational educational initiative

Philosophy: Socio-economic reform through education with **Personal Social Responsibility (PSR)** in a non-organizational, non-remunerative, non-commercial and non-political manner.

Objective: Groom competence to Compete among un-/under-privileged children from 9th-12th in Maths, Physics and Chemistry, leading to IIT-JEE.

Financial Model: Zero-&-Fund-Zero-Asset (ZFZA). It calls for promoters and facilitators to provide infrastructure for use to the extent they feel it is neither abused nor there is a breach of trust. And, reimbursement of operational expenses, as and when they arise, to the initiative

Operation:

- a. **Mode:** [Interactive Online Mentoring Sessions \(IOMS\)](#) since July'16, which has been recently switched over to A-VIEW, web-conferencing S/w, with connectivity upto 5 Learning Centers, with One Mentoring Center.
- b. **Participation:** Voluntary and Non-remunerative, Non-Commercial and Non-Political

Involvement:

- a. **Promoter –**
 - i. Initiate a Learning Center,
 - ii. Sponsor a Mentor who is willing to join on certain terms,
 - iii. Sponsor cost of operation and up-gradation of infrastructure to voluntary mentors,
- b. **Facilitator –**
 - i. Provide space and infrastructure for **Interactive Online Mentoring Sessions (IOMS)**. Most of it is generally available, and may need marginal add-on,

- ii. Garner support of elite persons to act as coordinators at the Learning Centre.

c. Participator –

- i. As a Mentor,
- ii. As a Coordinator,
- iii. Operational support
- iv. E-Bulletin and Website promotion for increasing its depth and width across target students

Background: *The initiative had its offing in May'12, when its coordinator, a non-teacher by profession, soon after submission of Ph.D. Thesis in 2012, at one of the IITs, under taken after retirement got inspired to mentor unprivileged students.*

The endeavour started with Chalk-N-Talk mode of mentoring unprivileged students starting from class 9th upto 12th. Since then it has gone through many ground level experiences and in July'16 it was upgraded to IOMS, a philosophy in action to reachout to more number of deprived students. Currently regular sessions of IOMS are held regularly for students of class 9th and above at few Learning Centres. Efforts are being made to integrate more learning centers and mentors to diversify its scope and utilize our full capacity.

*It is a small group of Four persons including **Prof. SB Dhar**, Alumnus-IIT Kanpur, **Shri Shailendra Parolkar**, Alumnus-IIT Kharagpur, settled at Texas, US and **Smt. Kumud Bala**, Retd. Principal, Govt. School Haryana. More details of the initiative are available on our [website](#) and operational aspects of can be online accessed at [IOMS](#).*

Actions Requested: *May please like to ponder upon this initiative. **Queries**, if any, are heartily welcome. We would welcome your collective complementing in any of the areas listed above at **Involvement**, to make the mission more purposeful and reachable to target children.*

Contact: Dr. Subhash Kumar Joshi, **Coordinator**, Gyan Vigyan Sarita.

Address: #2487, Mahagun Moderne, Sector-78, NOIDA, UP– 201309, (M):+91-9711061199,

e-Mail ID: subhashjoshi2107@gmail.com, **Website:** <http://www.gyanvigyansarita.in>

Inspirers of the Month



Sarvepalli Radhakrishnan

Indian philosopher

Born: 5 September 1888
Birth Place: Thiruttani, Madras, India
Education: Madras Christian College
Awards: Bharat Ratna, Order of Merit

He has been President of India (1962-1967) and Vice President of India (1952-1962)

His Birthday is Celebrated as Teachers' day in India



CR Rao

*Famous for **Rao-Blackwell Theorem***

Born: 10 September 1920
Birth Place: Huvina Hadagali, Karnataka
Education: King's College Cambridge
Awards: National Medal of Science for Mathematics and Computer, Padma Bhushan, Padma Vibhushan



Sir M Visvesvaraya

India's greatest civil engineer

Born: 15 September 1860
Birth Place: Muddenahalli, Karnataka
Education: College Of Engineering, Pune
Awards: Bharat Ratna
His birthday is observed as Engineers Day



Michael Faraday

Father of Electromagnetism

Born: 22 August 1791
Birth Place: Newington Butts, London
Awards: Royal Society Bakerian Medal, Copley Medal

He is famous for his law of Induction



Asima Chatterjee

Organic Chemist

Born: 23 September 1917
Birth Place: Kolkata, India
Education: Scottish Church College
Award: Padma Bhushan

She is Famous for anti-epileptic drug, 'Ayush-56'

अंदाज ए बयां

काला रंग और हंसमुख चेहरा याने कि मास्साब की नजर में

समीर लाल 'समीर'

शिक्षक दिवस आता है तो कुछ शिक्षक अनायास ही याद हो आते हैं. पत्नी तो खैर कभी याद से जाती नहीं, तो याद आने की कोई वजह नहीं है वरना तो जितने लेक्चर उससे सुने हैं उसके सामने तो जीवन में मिले सारे मास्साबों के लेक्चर भी कम पड़ें.

हमारे स्कूल में एक कुट्टिया स्वामी मास्साब थे. उनका नाम यूँ तो आर के शास्त्री था मगर जिस बेरहमी से वो बच्चों की कुटाई किया करते थे, उसके चलते न जाने कब कौन उनका नामकरण कुट्टिया स्वामी कर गया. बैच दर बैच उन्हें अनऑफिसियली आपसी बातचीत में इसी नाम से संबोधित करता रहा. शायद उनको पता भी न रहा हो.

बात-बात पर बांस की बेंत से छात्रों को तब तक कूटते, जब तक कि बन्दा न टूट जाये या बेंत न टूट जाये. हालांकि हम पढ़ाई में इतने बड़े गणेश भी न थे कि रोज कूटे जायें. कालांतर में चार्टर्ड एकाउन्टेन्ट बने ही याने कुछ तो चिकने पात रहे ही होंगे वरना होनहार कैसे निकलते?

मगर कुट्टिया स्वामी से नियमित पिटने का आंकलन जब कभी करते तो पाते कि इसमें कहीं न कहीं पढ़ाई को छोड़ कर कोई और वजह भी है. उस वक्त जो आंकलन किया तो लगा कि हो न हो कहीं न कहीं हमारा श्याम वर्ण इसके लिए कुछ हद तक जिम्मेदार है. काला रंग यूँ भी शक के दायरे में रहता है फिर भले ही वो इंसान का हो या धन का.

एक गोरा कुछ कहे और एक काला कुछ कहे तो गोरे का कहा ही सच प्रतीत होता है. मजाक नहीं है. इसे जिया है तब यह ब्रह्म सूत्र हस्ताक्षरित कर रहे हैं हम..

एक तो काला रंग और उस पर हंसमुख मुस्करता चेहरा याने कि मास्साब की नजर में करेला और नीम चढ़ा. मास्साब जब कूटने को शिकार तलाशते और उनकी नजर हमारी नजर से मिलती तो वह समझते कि हम उनको चिढ़ा रहे हैं..तुरंत कहते हो, न हो तुमने ही यह बदमाशी की होगी....खड़े हो जाओ.

ईश्वर जब देता है तो छप्पर फाड़ कर देता है मगर जब लेता है तब भी पूरी दुर्गति करके ही छोड़ता है.

हमारी हाईट ही ऐसी दी कि खड़े थे मगर मास्साब कहते रहे कि खड़े हो जाओ..वो समझते कि हम बैठे हैं. जब हम कहते कि खड़े तो हैं ..अब और कितना खड़े हो जायें तो उनके गुस्से में यह बात मानों हवन सामग्री से दी गई आहुति का काम करती और फिर उनकी बांस की बेंत और हमारा कोमल शरीर...आपस में बातें करने लगते कि तुम न होती तो ऐसा होता..तुम न होती तो कैसा होता..

हालात के आंकलन ने ये भी सुझाया कि रंग, मुस्कान से ऊपर आपसी लेन देन और संपर्क के भाव में भी हम खरे न उतरे थे वरना ये दोनों कमियाँ दर किनार हो जाती. हमसे भूल यही हो रही थी कि हम उनसे ट्यूशन पढ़ने नहीं जा रहे थे उनके घर... शायद यही सबसे बड़ा कारण था कि हम रंग भेद और खुश रहने की सजा पाते रहे.

बचपन से कवि हृदय रहे और लोगों को प्रोत्साहित करने में सबसे आगे जो आज भी जारी है टिप्पणियों में वाह वाही के माध्यम से...इस हेतु भी अगर आप पिट जायें तो इसे काल चक्र की क्रूरता के सिवाय और क्या संज्ञा दी जा सकती है?

हुआ यूँ कि गुरु जी मैथली शरण गुप्त की पंचवटी पढ़ा रहे थे. उन्होंने पढ़ा:

चारुचंद्र की चंचल किरणें, खेल रहीं हैं जल थल में,

स्वच्छ चाँदनी बिछी हुई है अविनि और अम्बरतल में।

हम कवि मना..तुरंत बिन प्रयास अनायास कह उठे...वाह वाह...एक बार फिर से पढ़िये...बहुत खूब...

अब इसमें क्या गलत है आप बताओ मगर कुट्टिया स्वामी..उनको तो कूटने के लिए शिकार चाहिये..ऐसा कूटा ऐसा कूटा कि अगले तीन दिन ईश्वर प्रदत्त बैठकी इस काबिल न बची कि बैठ पायें. बिना सुनाये क्लास में खड़े रहने की सजा काटते रहे...

जब कभी शिक्षक दिवस पड़ता..छात्र अपने अपने प्रिय शिक्षकों को नमन करते..याद करते और हम कुट्टिया स्वामी को स्कूल का मोड़ आने के पहले से ही शाष्टांग करने लगते थे मन ही मन...मगर उनकी क्षोभ की दूरबीन थी कि कोई और धराये न धराये, हम धरा ही जाते थे नियम से .. फिर हमने भी अपने धराये जाने को नियति मान कर स्वीकार कर लिया था...तब से कूटे जाने की तकलीफ कम हो गई...हालांकि कूटे उतना ही जाते थे...

शायद गरीब किसान भी ऐसे ही जीता होगा सरकारी मार खा खा कर हिन्दुस्तान में उसे अपनी नियति मान!! एक हिन्दुस्तानी का नियति पर भरोसा कर जीवन गुजार देना यूँ ही नहीं होता..सभी हमारी तरह अनुभव से कहीं न कहीं अलग अलग तरह से गुजरते हैं तो हिन्दुस्तान बनता है!!

इस शिक्षक दिवस पर हिन्दुस्तान को सलाम..जिसने वो शिक्षा दी है कि अब कोई पाठ कठिन नजर नहीं आता!!



लोकप्रिय चिट्ठाकार समीर लाल व्यवसाय से चार्टर्ड एकाउंटेंट हैं। आजकल वे कैनेडा में रहते हैं। उन्होंने कहानी लिखना पाँचवीं कक्षा में ही शुरू कर दिया था। आप कविता, गज़ल, व्यंग्य, कहानी, लघु कथा आदि अनेकों विधाओं में दखल रखते हैं। भारत के अलावा कनाडा और अमेरिका में मंच से कई बार अपनी प्रस्तुति कर चुके हैं। आपका ब्लॉग “उड़नतश्तरी” हिन्दी ब्लॉगजगत में एक लोकप्रिय नाम है। हाल ही में विश्व के चयनित १३१ श्रेष्ठ हिन्दी व्यंग्यकारों में उनका स्थान २१ वा है।

ई-मेल: sameer.lal@gmail.com; Blog: Udantastari

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Problems are meant to be solved; every solution opens doorway to new problems.

This is an endless journey to discovery of nature.

We are, what we are, because of rigorous effort of countless persons.

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Ayurveda- Health Care

VIDARIKAND (Puraria Tuberosa)

Dr Sangeeta Pahuja

Vidarikand is a perennial herb known as Bhumikushmanda or Indian Kudzu. In Ayurveda this herb is used as general tonic and as a Rejuvenator and aphrodisiac. It is a nutrient rich herb packed with micronutrients, minerals and vitamins.

- It is Guru and snigdha (heavy and smooth) in action.
- It's Madhur ras (sweet taste) pradhan.
- It has (sheetvirya) cooling effects in terms of potency.
- Vipak (after taste) is sweet.

Balances Vata, Pitta and is an excellent Rasayana due to Antioxidant and anti-inflammatory properties and helps to delay the ageing process.

It is used in the treatment of urinary tract disorders and used in the treatment of Reproductive issues.

It is a galactagogue and hence helps to increase milk secretion in the breast and promotes overall nutrition.

Intake of 5mg vidarikand powder with milk three times a day increases milk production in lactating mothers. You can add Shatavari, Ashwagandha, Mulethi and Mishri in the equal amounts to get enhanced and optimum results.

It can be used to decrease the excessive bleeding during menstruation. One tsp. vidarikand powder with ghee and sugar can be taken for this purpose.

It has vajikaran properties (Aphrodisiac) and hence boosts libido and increases stamina and is also used to treat male infertility.

Additionally, it also improves the voice quality. Helps improve the digestion by increasing the bile secretion. In case of hyperacidity, it is advised to take 5gm vidarikand extract with 2 tsp. honey in the morning. As vidarikand, is a mild laxative, can be taken with vidarikand juice with Black pepper, Saunth, Pippli (each one gram) to relieve constipation.

It stimulates the mucilage and is a good rejuvenator; also helps improve the complexion and is already used in used in the cosmetic industry.

It has cardio protective properties and the root of the plant has antipyretic properties. It has been used for prevention of ulcers like Peptic ulcer, duodenal ulcer, crohn's disease.

Consuming Vidarikand helps to increase Ojus and also balances the aggravated Dosha, due to its rasayan and vata pitta balancing nature.

Vidarikand is used to reduce the addiction of alcohol; 2gm to 3gm powder can be taken with milk after meals twice a day.

It is also useful in coronary artery disease due to Antioxidant properties. It prevents the formation of blood clots, which improves the flow of blood to the heart and reduces the damage of heart.

It also helps reduce the blood sugar level and prevent damage of pancreatic cells due to its antioxidant and anti-inflammatory properties which enhances the insulin secretion and sensitivity.

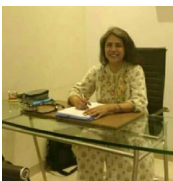
Due to anti-inflammatory properties it is helpful to reduce joint pain. Vidarikand powder after making paste with water can be applied topically (on the affected area) to reduce joint pain.

Vidarikand promotes physical strength due to its ability to stimulate growth hormones. It also helps in improving chest circumference, muscular strength and body weight.

Due to the antioxidant properties, it helps to remove the free radicals from the body which prevent damage to blood vessels. It can also reduce the blood pressure by widening the blood vessels and improved the blood flow.

Vidarikand also helps to reduce the symptoms of menopause by removing toxins and balancing Vata, due to its rasayan and vata balancing nature.

Follow Ayurveda and stay healthy.



Author is an Ayurvedic Medical Practitioner. She did B.A.M.S. from M.D. University, Rohtak. She has consultation centres at Delhi and Noida. She is keenly interested in spiritual, women and social developmental activities. Contact No.: 9953967901,

e-Mail - sangeeta.pahuja3@gmail.com Blog: Ayuvedvardnan

शिक्षक का गुरु हो जाना

मुकेश आनंद

एक प्रश्न के उत्तर में ओशो ने बताया था कि गुरु का काम सिर्फ प्रश्नों के उत्तर देना नहीं है, बल्कि उसका काम अपने छात्रों को इस ऊंचाई तक ले जाना है कि उनका कोई प्रश्न शेष ही ना रहे। यह गुरु होने की पराकाष्ठा है।

भारतीय परंपरा में गुरु का स्थान ईश्वर से भी ऊपर माना गया है। इसके पर्याप्त कारण भी गिनाए गए हैं। यह व्यवस्था किसी आस्था या अंधभक्ति के कारण नहीं, बल्कि तार्किक आधार पर स्थापित की गई।

वेदों और उपनिषदों में इस बात पर सब एकमत हैं कि ईश्वर का कोई रूप, गुण या आकार नहीं होता। ईश्वर का निरूपण यह नहीं है, यह नहीं है और यह भी नहीं है (नेति नेति) इस प्रकार से किया गया है। जगत में भौतिक और दैहिक श्रेष्ठता एवं सांसारिक गुणों का विकास आवश्यक है, जिसके लिए शिक्षक का योगदान अति महत्वपूर्ण है। विश्व की अन्य सभ्यताओं में शिक्षक का इतना ही योगदान महत्वपूर्ण माना गया। इसलिए अन्य भाषाओं में गुरु के समानार्थक शब्द ढूंढना बहुत मुश्किल है।

प्रामाणिक रूप से भारतीय शिक्षण भौतिक गुणों के अलावा आध्यात्मिक और देह के परे होने वाले अनुभवों को सर्वश्रेष्ठ मानता है। यही कारण है कि ईश्वर के समान राम, कृष्ण और शिव को मानते हुए भी उन्होंने उनमें आध्यात्मिक गुण जैसे, क्षमा, धैर्य, दया और सांसारिक चीजों से विरक्ति के गुण आरोपित किए और उन गुणों को प्रधानता दी।

वेदों-पुराणों में 'सा विद्या या विमुक्तये' इस मंत्र का उद्घोष किया गया। यानी विद्या वह है जो व्यक्ति को सब प्रकार के कष्टों को दूर करें। आज के समय में यह बात स्पष्ट हो गई है कि सिर्फ धन उपार्जन करने से सुख प्राप्त नहीं किया जा सकता, क्योंकि दुखी व्यक्तियों में सर्वाधिक संख्या उन लोगों की है जिनकी सांसारिक जरूरतें समाप्त हो गई हैं। अमेरिका जैसे उन्नत देशों में मानसिक रोगियों की संख्या बहुत ज्यादा है और उत्तरोत्तर बढ़ती ही जा रही है।

सांसारिक बंधनों और कष्टों से मुक्ति का जो मार्ग दिखलाता है और एक साधारण व्यक्ति को भी ईश्वरीय गुणों से युक्त करने का सामर्थ्य रखता है, उसी को गुरु के रूप में मान्यता दी जा सकती है। राम के गुरुगण वशिष्ठ, विश्वामित्र, अगस्त्य और कृष्ण के गुरु सांदीपनी आदि ऋषियों को समर्थ गुरु के रूप में देखा जाता है। क्योंकि इन गुरुओं के पास मानव को ईश्वरीय गुणों से युक्त करने का सामर्थ्य था। इसलिए इस प्रकार के गुरुओं को ईश्वर से भी ऊपर दर्जा दिया गया।

माना जाता है कि शिक्षा एक व्यापार से अधिक कुछ भी नहीं रह गया है। हां, यह बात भी सत्य है कि बहुत से शिक्षक व्यक्तिगत स्तर पर छात्रों को ज्ञान और श्रेष्ठता बिना किसी लोभ या भेदभाव के प्रदान करते हैं।

शिक्षक दिवस पर हम यही प्रार्थना करें कि हमारी भूमि पर ऐसे शिक्षक उत्पन्न हों जो प्रत्येक मानव को, सांसारिक गुणों के अलावा ईश्वरीय गुणों से संयुक्त कर दें, तभी हम इस धरा को स्वर्ग से भी सुंदर बनाने में सफल होंगे।



कविअधिवक्ता एवं सामाजिक कार्यकर्ता हैं। सामाजिक विषयों पर पाठन, चिंतन –मनन, लेखन एवं उन पर कार्यान्वयन उनकी अभिरुचि है।

ई-मेल : lawexcel@gmail.com

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*The most beautiful thing we can experience is the mysterious.
It is the source of all true art and all science.
He to whom this emotion is a stranger,
who can no longer pause to wonder and stand rapt in awe,
is as good as dead: his eyes are closed.*

- Albert Einstein

महामारी में जीवन की पीड़ा

किसमत्ती चौरसिया 'स्नेहा'

आइल कोरोना इ अफतिया हो-२
कि रोटिया मोहाल भइल बाबूजी।

पेटवा के खातिर गइले शहर में ललनवा,
बचवा अउर दुलहिन भी लेके गइले संगवा,
बंद भइल रोजी- रोटि छिन गइल मकनवा,
भूखे - प्यासे, पैदल, थकल- हारल लउटे घरवां,
जिनगी में छा गइल अन्हरिया हो
कि रोटिया मोहाल-----

छोटका त तड़पत हउवे चार दिन से जर से,
फूटी कौड़ी मिले नाही कौनो कोने घर से,
माथे पसीना लोर आंखी से ढर के,
न मिले उधारी कतहूं भटके मन डग से,
गिरवी रखा गइल कुंडलिया हो
कि रोटिया मोहाल-----

दातादीन मालिक बोले टिविए पे घर से,
लड़ा, जीता, डरा नाही कोनो भी कसर से,
छप्पन भोग करें कपड़ा पहिनें मन के,

मुंहवा के चमक देखा लागेले ऊ जन के?
बतिये से लावें ऊ रहतिया हो
कि रोटिया मोहाल-----

कौनो ओरी राह नाही सुझत बाटे केहूके,
बड़ ई बीमारी कि गरीबी बड़ हमनी के,
सून भइले खूटा सूनी हो गइली कलाई भी,
बीज- खाद कइसे मिलत रुक गइल बोवाई भी,
चिरई - सुग्गा उड़ेले ओसरिया हो
कि रोटिया मोहाल-----

स्कूलवा में ताश बिछल मंदिर गूंजे घंटा,
दर- दर घूमे बबुवन मांगेले ई चंदा,
सूखेले किसान हरियात खाली पंडा,
न बा कौनो नोकरी, न पढ़ाई नाही धंधा,
भविष्य के डूबत नवरिया हो
कि रोटिया मोहाल-----

आइल कोरोना इ अफतिया हो
कि रोटिया मोहाल भइल बाबूजी।



कवयित्री , सम्प्रति इलाहाबाद विश्वविद्यालय में डॉ विजय कुमार रविदास के शोध निर्देशन में अब्दुल बिस्मिलाह के कथा साहित्य पर शोधकार्य में संलग्न हैं। आजमगढ़ में गांव से ही स्नातक तक की शिक्षा प्राप्त किया है। स्नातकोत्तर शिक्षा काशी हिन्दू विश्वविद्यालय से वर्ष २०१७-१९ में प्राप्त की किया। इसके अतिरिक्त एनएसएस, कम्प्यूटर डिप्लोमा CCC और DCA भी किया है। पढ़ाई के साथ- साथ कविताएं एवं गीत लिखने का शौक है। कुछ कविताएं राष्ट्रीय- अंतरराष्ट्रीय समाचार पत्र- पत्रिकाओं में भी प्रकाशित हुई हैं।

ई-मेल : sneha9628bhu@gmail.com

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If you can find a path with no obstacles, it probably doesn't lead anywhere

Frank A. Clark

—00—

गुरू-पिता

भावना मिश्रा

आज गाँव के उस गली से गुजर रही थी, जहाँ मेरा बचपन बीता था, वही जाना पहचाना गली, मानो लग रहा था, कल कि बात हो, पर आज कोई भी चेहरा जाना पहचाना नहीं लग रहा था। तीस साल बाद इन गलियों से गुजर रही थी। अतीत की याद में खो गयी रागिनी.....

वो बाते, वो शरारत, वो हँसी, वो ठिठोली, वो कठिनाई का दौर एक पल के लिए लगा कि कैसे गुजर गया वक्त इतना कठिन समय भी बीत गया। हिम्मत, लगन और मेहनत से हम कुछ भी कर सकते हैं, भगवान हमारी किसी ना किसी रूप में मदद करने आ जाते हैं। एक गरीब परिवार में जन्म लेने के बाद और पापा के जल्दी ही दुनियाँ छोड़कर चले जाने के बाद भी आज रागिनी एक जानी-मानी डाक्टर बन गयी है।

एक दिन रागिनी स्कूल में रो रही थी, विज्ञान के शिक्षक मोहन बाबू रागिनी से बोले --- "क्यों रो रही हो? क्या हो गया है?"

सिसकते हुए रागिनी बोली --- मेरे पापा कि तबियत बहुत खराब है, और मैं इस महीने का स्कूल फीस नहीं दी हूँ, मैं पढ़ना चाहती हूँ।

मोहन बाबू --- इतनी छोटी सी बात को लेकर, तुम रो रही हो, मैं फीस दे देता हूँ।

रागिनी बोली -- सर आप फीस देगे।

मोहन बाबू --- हाँ जब तुम्हारे पापा ठीक हो जाएँगे, तुम पैसे वापस कर देना।

ये सिलसिला छः महीने चलता रहा, और एक दिन रागिनी के पिता दुनियाँ छोड़कर चले गये।

मोहन बाबू रागिनी के घर पर आकर बोले --- रागिनी तुम स्कूल क्यों नहीं आ रही हो? क्या हुआ?

रागिनी फफक फफक कर रोने लगी, और बोली --- इतना दिन तो सोचती कि पापा आपको सारा रूपये वापस कर देगे, पर अब तो ये कभी नहीं हो पाएँगा।

इतनी छोटी बात रूपये के कारण तुम स्कूल नहीं आ रही हो, मेरी कोई बेटी नहीं, बस एक बेटा है, मैं तुम्हें अपना बेटी समझता हूँ, तुम आज से मेरी बेटी हो, तुम पढ़ने में बहुत मेधावी हो, मैं कभी नहीं चाहूँगा कि तुम अपनी पढ़ाई रूपये के कारण छोड़ दो।

यह सुन रागिनी पापा कहकर मोहन बाबू से लिपट कर रोने लगी।

सारा पढ़ाई लिखाई का खर्च मोहन बाबू ने पिता बनकर किया।

पढ़ाई करते हुए साथी अभि से प्यार और फिर शादी कर, अपने काम-काज में व्यस्त हो गयी।

मोहन बाबू ने एक दिन फोन पर पूँछा -- कैसी हो बेटी?

रागिनी --- मैं ठीक हूँ पापा।

रागिनी --- आपकी आवाज कैसी लग रही, कितने दिनों से बोल रही हूँ, मेरे पास आ जाइये, पर आप आते नहीं, हर बार कुछ ना कुछ बहाना बना कर नहीं आते। आप कि तबियत मुझे नहीं ठीक लग रही, मैं भी इतनी व्यस्त रहती कि इतने दिनों से आप के पास नहीं आ पायी। मैं अगले सप्ताह आ रही हूँ, आपके पास।

मोहन बाबू-- नहीं बेटी मैं आ जाऊँगा, कुछ दिनों में।

रागिनी --- नहीं मैं आ रही आपको लेने।

गाड़ी का ड्राइवर-- किस गली में लूँ।

रागिनी --- पुरानी यादों से निकलर गाड़ी से इधर-उधर देखने लगी, मोहन बाबू का घर नहीं दिखा।

सामने आते एक आदमी से पूँछी तो उसने बताया - आगे से वो चौथा कच्चा मकान में मोहन बाबू रहते हैं।

रागिनी हक्का-बक्का रह गयी, क्यों? क्या हो गया?

वह गाड़ी से उतकर भागते हुए उस घर में पहुँची।

चारपाई पर मोहन बाबू लेटे थे।

रागिनी लिपटकर जोर-जोर से रोने लगी।

आप ने मुझे क्यों नहीं बताया, आप इतने बीमार है।

मैं कभी क्यों नहीं सोच पायी कि आप मेरी पढ़ाई-लिखाई और मेरी शादी के लिए अपना घर आँगन सब बेच दिया।

आपका बेटा (रमेश) कहाँ है?

मोहन बाबू -- वह शहर में अपने परिवार और बच्चे के साथ रहता है, वह मुझ से नाराज है कि मैंने सारी सम्पत्ति तुम पर खर्च कर दी।

रागिनी --मोहन बाबू के गले से लगकर फूट-फूट कर रोने लगी।

बोली शायद आज मेरे संगे पिता भी मेरे लिए यह नहीं कर पाते जो आप मेरे गुरू-पिता आपने किया.....



लेखिका कला संकाय से स्नातक तथा एक गृहणी हैं। वे अपने पुत्र मनन और पुत्री नव्या के साथ अपने परिवार तथा बुजुर्गों की सेवा का आनंद लेती हैं। संगीत (गायन), नृत्य एवं भ्रमण इनके शौक हैं।

ई-मेल : bhawna.ragini@gmail.com

EVOLUTION OF IOMS

- Philosophy of IOMS had its inception in Sarthak Prayash an NGO, in May'2012 in Chalk-N-Talk Mode with stray students.
- Its manifestation in the form of e-Bulletin started in 2016, on 2nd October with its First Issue **Subodh पत्रिका**
- In May' 2017 the initiative was upgraded to IOMS, in its primitive form, with the efforts of its Shri Shailendra Parolkar
- This initiative was reorganized as Gyan Vigyan Sarita in 2017 with its e-Bulletin in the name of **Gyan Vigyan Sarita – शिक्षा**
- With this e-Bulletin as Fourth Annual issue, we are stepping in Fifth year of broadening communication to invoke participation of those who can make a difference, for the larger good.
 - Presently it is a satisfactory working model on 'Minimum Need' basis.
- Currently about 75 students of three rural schools, one is RKM High School in A.P. and other two at remote area, are being ng mentored. At Dinjan it is our first step to mentor children of our brave soldiers securing our frontiers
 - We continue to look forward.....

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It has been observed that normally a person responds to a problem or a situation either extempore or thoughtfully. Extempore response is intuitive and instant, while thoughtful response is delayed. This delay depends upon one's ability, patience to analyze the situation and the time available to respond. Accuracy of instant response is regulated by intuitive skills of the person. Growth of this intuition in turn is regulated by expertise attained by a person to analyze and act upon a situation. Multidimensionality in versatility, depth and spread of the intuition leads to wisdom.

This expertise or wisdom cannot be achieved in one leap. It is a result perseverance in the pursuit of striving against cyclic failure-success and grows like a spiral.

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Education is not filling of a pail, but lighting of a fire.

William Buttler Yates

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Online Education Amid COVID-19 Pandemic Causing Digital Divide Among Students

(Reproduced Article of Relevance in Zee News, for the Benefit of Readers)

(URL: <https://zeenews.india.com/india/online-education-amid-covid-19-pandemic-causing-digital-divide-among-students-2304432.html>)

The Internet has reached the maximum number of people in Delhi, Kerala, and Haryana, but it is still away from the majority of people in the northeastern states, except Assam.

New Delhi: India has entered into a new era of online education in the wake of the COVID-19 pandemic outbreak, but it creating a wedge between the haves and have nots. The growing digital divide is also being witnessed among rich and poor states of the country. For example, the Internet has reached the maximum number of people in Delhi, Kerala, and Haryana, but it is still away from the majority of people in the northeastern states, except Assam.



The DNA analysis will try to peep into the reasons behind the growing digital divide, which is obstructing the path of online education

in India. If you are able to see this analysis on your mobile phone or an Internet device, then you are lucky. You should try to understand the problem of those people who are not able to get an education through the internet despite willing to pursue it.

Although Digital India has become a necessity during the COVID-19 lockdown, the question is also being asked if we are ready with requisite infrastructure for online education. If the students belonging to every section of society are equipped to avail of online education?

In our childhood, we have heard stories about how our previous generation strived hard to get educated. Our older generation still narrated stories as to how they had to walk for several kilometers to reach school, or how did they complete their studies in the light of candles or street lights. Former President of India and great scientist APJ Abdul Kalam used to sell newspapers to continue his studies. Former Prime Minister Manmohan Singh used to study under the street lights.

The situation has changed today, but the struggle for education is the same. Earlier people struggled to reach school and now the present generation is striving for online education. Schools are closed amid coronavirus scare and there is no hope when will they open, therefore, schools are teaching students online.

Since not all families in India have access to the Internet, this is creating a digital divide that needs to be bridged at the earliest. A recent NCERT survey also revealed startling facts:

1. According to the survey, 27 percent of students in India do not have smartphones and laptops.
2. 28 percent of students are not able to study properly due to frequent power outages
3. 33 percent of students admitted that they are not able to focus on studies during online classes
4. Online classes are not able to solve problems related to maths and science subjects
5. 50 percent of students said they do not have school books, thus, students are facing problems in offline studies too

Notably, the NCERT website has provided online access to E-books of many subjects but for that students require internet and smartphone. In lack of it, crores of children in the country are deprived of accessing this facility.

The survey has been prepared on the basis of interaction with 34000 students, parents, and teachers studying in Kendriya Vidyalaya, Navodaya Vidyalaya, and CBSE affiliated schools. Amid this scenario, what will be the future of online education can be easily understood.

The number of students going to schools and colleges in India is currently 300 million, but they are unable to attend schools due to the coronavirus situation.

According to a National Sample Survey report, 90 lakh students studying in the country's government schools have no facility for online education. 24 percent of households are connected to the Internet through smartphones, and only 11 percent have a computer with an Internet connection, while the situation in rural India is worse.

It further said that 16 percent of rural households get electricity from 1 to 8 hours, 33 percent rural households get electricity for 9 to 12 hours, while 47 percent get power supply more than 12 hours.

Notably, 66 percent of India's population still lives in villages and if this number fails to get 24-hour electricity, then how will students in villages have access to online education. Out of this 66 percent rural population in India, only 16 percent have access to the internet.

20 percent of poor households, only 3 percent have access to a computer and 9 percent have an internet connection. Those families in rural areas having internet, 3 percent are facing Internet interruptions and 53 percent are confronted with poor internet connectivity. Broadband signals fail to reach 32 percent of the households

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New Release: A Book By Prof. SB Dhar, Editor, Gyan Vigyan Sarita: शिक्षा

ISBN: 9789390307593

Pages: 192, 5x8, Hindi
Available Types: Print, E-book
Genre: Non-Fiction

ABOUT THE BOOK

Chalo Soch Badlen is a book to remind its reader that one's life should be such that others can take inspiration from it. It prepares its reader to realize that one should not live life as a problem. It should be lived as one is looking for a solution to the problem. This book is to teach that when our nature is not determined; our intellect gets divided into different branches making our success difficult.

EXCERPT FROM THE
PREFACE WRITTEN BY
DR. Subhash Joshi

.....हर एक की जिंदगी का मकसद केवल समस्याओं का हल ढूँढना रह गया है। समस्यायें बढ़ती जा रही हैं, सुलझाने वाले लोग कम होते जा रहे हैं, उलझाने वालों की संख्या बढ़ती जा रही है। राय लेने वालों की संख्या घटती जा रही है, और राय देने वालों की संख्या बढ़ती जा रही है। जमीनी हकीकत को जानने वालों की संख्या घटती जा रही है, और काल्पनिक दुनिया में रहने वालों की संख्या बढ़ रही है। सच तो यही है कि दुनिया में हर काम करने से होते हैं, न कि हवा में लकीरें खींचने से।.....

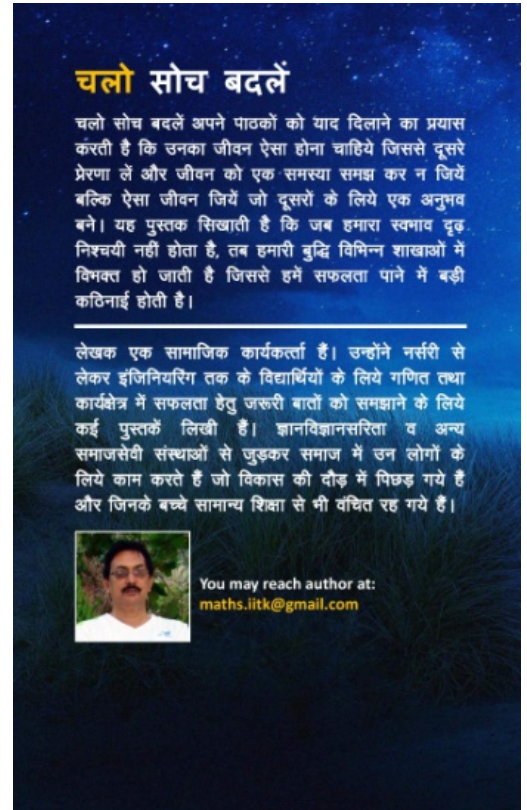
THE BOOK IS AVAILABLE THROUGH THE FOLLOWING LINKS:

<http://www.amazon.in/dp/B08FZF8DHC>

http://www.bookscamel.com/index.php?route=product/product&product_id=2508

<https://www.flipkart.com/chalo-soch-badalen-life-not-station/p/itm71a600a7bde1e?pid=RBKFUZZTSHNFRHHXJ>

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Covid19: Teachers' Role

Prakash Kale

This month on 5th we will be celebrating Teachers Day in ***an unusual way***. Due to strategies adopted to prevent COVID-19 disease transmission, (at least till 31st August), schools are closed. So, it is possible that Teacher and Student may not be able to greet each other (in person). Such unprecedented situation is causing anxiety and distress among students, all of which are natural psychological responses to the randomly changing condition. But more important and worrisome is the adverse behavioral and psychological changes that are coming in ***children and students*** due to restricted social interaction. Neglecting this, however we have focused our effort and deciding policy direction only on protection of ***physical health and mitigating economic distress***. We must understand adults can recoup economic damage by extra work but if young student's temperament is damaged it will be a ***permanent loss***. Adverse effects and loss due to it will be far reaching than physical and economic one and spill over economic progress in the long run. Rapidly expanding mass hysteria and panic regarding COVID-19 may beget enduring psychological problems in students ***which could potentially be even more detrimental in the long run than the virus itself***. Like individual losses (smell and test) due to Covid19, if ***Entrepreneurship or Risk-taking capacity*** is also lost in students (future citizen), can we hope to grow economically any time near future? To put in short, so far debate is between ***present*** "Live and Livelihood", but it is time to debate ***which is more dangerous Covid19 or Fear of Covid19 for country's future***.

As said above, a very crucial, but apparently overlooked issue is the psychological impact of COVID-19 outbreak on ***toddlers and adolescents***. Learned experiences through environmental factors during early childhood engender the fundamentals for lifetime behavior and success, as it is a crucial phase for cognitive, emotional and psychosocial skill development. During a severe pandemic like COVID-19, community-based mitigation programs, such as closing of schools, parks, and playgrounds has disrupted children's usual lifestyle and promoting distress and confusion. Stressors, such as monotony, disappointment, ***lack of face-to-face contact with classmates, friends and teachers, lack of enough personal space at home, all have potentially triggered troublesome and even prolonged adverse mental consequences in children***. Further during the COVID-19 pandemic a huge number of parents have suffered financial losses or on the verge of unemployment, further intensifying ***the negative emotions and transmitting the same to their children***. Having to cope up with these

changes' children are becoming more demanding, and exhibiting impatience, annoyance and hostility, which in turn causing them suffering from physical and mental violence by overly pressurized parents. While online classes and assignments have been the only effective way for continuing education at this situation, experts have already cautioned about being over-burdened. (All parents cannot afford or /and arrange for online education of wards, this itself is causing exclusion and discrimination and may increase dropout rate, and other social evils like child labor and child marriage, but that is the topic for a separate full article.). ***To avoid this, teachers should advice parents to appreciate home-confinement during COVID-19 as a mere opportunity to promote healthier parent-child relationships by correct parental strategies and strengthen family bonding by spending more quality times together. It should be emphasized that even in this time of physical distancing, it's critical to seek and give social support and connection with/to others. The closure of all educational institutions may increase the number of mentally depressed young people. So parents should be trained to easily identify the signs of anxiety, panic attacks, depression and suicide (among children).*** In short, to the extent possible and to the maximum possible students, ***specific psychological needs, healthy lifestyles, and good parenting guidance must be addressed through the same online platform by teacher and or experts.***

However, on the other hand, under Covid19 mitigating strategies, social distancing is affecting how much parents wanting or allowing children to socialize with others, what they desire in children, and ***they are preferencing for more conventional thinking over openness to new experiences***. Spending time with others is beneficial to mental and physical health but is restricted (even in people's closest, most established relationships) when there is a risk of infectious disease. Now people evaluate strangers more negatively and have heightened tendencies to avoid them. ***This tendency can be passed down to offspring.*** Living during a period with a high risk of infection is ***adversely shaping*** how children view themselves in relation to their friends and community and their ***risk-taking attitude***. The longer the corona virus threat lingers, the more these changes may reflect not just changes in momentary behaviors, but changes to be more enduring aspects of children's personalities. ***The psychosocial risks (mental health impacts) for children in this situation are apparent, as they are out of touch with schools, classmates, and playmates, and deprived of physical activities and social activities.***

Mass fear of COVID-19, rightly termed as **“corona-phobia”**, is generated due to perceived risk of acquiring the infection etc. and generating negative psychological responses and avoidance reaction **among students and common people**. But more so, psychological distress levels have been influenced by the huge amount of (mis)information at the fingertips coming and shared via social media. ***Distrust towards others in terms of disease spread and perceived inefficiency of the government and healthcare services to combat the disease is the focus of this media’s messages.*** The director-general of WHO has also referred this to **“corona virus infodemic”** which is breeding fright and panic by laying out unchecked mind-boggling rumors, flamboyant news propaganda and sensationalism. Since sensationally charged and appalling contents draw the most attention and garner the most developments in social media, several users pretend COVID-19 symptoms **to gain easy popularity and sowed mass confusion and panic**. Many bloggers, groups or personal users in YouTube, WhatsApp, etc. started the business of making a profit of COVID-19’s popularity in many impulsive and unpredictable courses of action. ***The deluge of conflicting information, misinformation and manipulated information on social media should be recognized as a global public-health threat*** and to counter it honest transparent communication should be ensured so people/students do not seek information from unreliable alternative sources and thus spread rumors. A comprehensive **“information diet”**-based approach is urgently needed to be delivered through traditional/online media after receiving proper training by health information professionals. ***For students, teacher can and should take this role (while in online session too) on themselves to protect soft mind of students. Circumstances also demand that teacher teach students to navigate through all misinformation and fake news that infest the media landscape today. Like the legendary “Hamsa” our student must be able to assimilate and absorb and discard the lies.***

Apart from stress etc., the side effect of above (misinformation) is that, at a few places and in a few communities, the COVID-19 outbreak has given rise to **stigmatizing the victim**. Resulting in factors like fear of isolation, racism, discrimination, and marginalization with all its social and economic ramifications. ***A stigmatized community tends to seek medical care late (and sometime privately outside the glare of public scrutiny) and hide important medical and travel history,*** increasing the risk of community transmission. In order to prevent discrimination and stigma around COVID-19 among students’ **teachers** have to play an integral role during and after the pandemic. ***Religious misbelieve;***

disbelief and communal disharmony are major issues which may tarnish all the great efforts taken against the pandemic in India. The teacher needs to be alert and make student alert about such misconceptions to develop themselves a healthy citizen. The fact is along with Covid19 immunization, we need to take “mind/thought immunization” program too.

Teacher must also emphasize that hard statistics reveal that approximately only 5 to 10 % of the tested people, report positive for Covid19. Further, about 80% of positive cases recover from the disease without any serious complications and only 2.8 % (in India) of closed cases are ***fatal (Half of these above 60 years of age)***. So far in India approximately 60000 people have died due to Covid19; many of them had co morbidity, ***but a nation of 140 cr. is held hostage to fear and anxiety.*** As said early, its impact will be particularly severe on infants and child who are not getting proper ***environment for growth and learning at crucial phase of their life.*** Thus, (at the cost of repetition) if not managed properly, the effects of the corona virus pandemic will be ***“imprinted on the personality of our children (and nation) for a very long time.*** How would COVID-19 shape young people’s personalities – and into what? Young people’s mind’s shape, and are shaped by, their life circumstances. Human being a ***Social Animal*** is born into this world ready to deal with basic problems – forming close relationships, maintaining status in groups, finding friends and many more activities based on group interaction. Situation of Covid19 is challenging all this and ***a few things (said above and below) need to be avoided and others need to be managed*** to minimize the social and psychological cost of pandemic.

Coming back to teacher’s role as educator, corona virus-related disruption has given time to rethink about the sector. Technology has stepped in and will continue to play a key role in educating future generations and the role of the educator is changing too. All of us must ***rethink*** how we educate, and question what we need to teach and what we are preparing our students for. Most students in educational institutions today are from Generation Z, a generation that has grown up in a truly globalized world. They are ***likely to be reflecting on their education as a result of a truly global pandemic,*** with many facing cancelled exams, sporting events and even graduation. This generation is defined by technology, where the terms FOBA (Fear of Being Alone) and FOMO (Fear of Missing Out) express their expectation of instant communication and feedback (that includes from parents and educators) done through apps like Instant Messenger, Snapchat and WhatsApp and being amplified with the current remote learning. ***Thus “Modern learning cannot be confined to the classroom, and it is more important***

than ever that teacher empower themselves to continuously guide and nurture students during this difficult time,” We will see a shift where schools will create a foundation of inclusive, flexible spaces that will enable students to learn beyond walls.” Students can be empowered to learn for themselves in flexible, often collaborative ways, both inside and outside classrooms at their own pace. Nonetheless, bricks-and-mortar schools will play a valuable role in the future. For instance, a school is a safe place for children to learn social skills while their parents are at work.

As said above the COVID-19 crisis has changed student's world and global outlook. So, it may also teach us about how education needs to change to be able to better prepare our young learners for what the future might hold. These changes may include: 1. Educating citizens in an interconnected world. COVID-19 is a pandemic that illustrated how globally interconnected we are – there is no longer such a thing as isolated issues and actions. 2. The notion of an educator as the knowledge-holder who imparts wisdom to their pupils is no longer fit for the purpose of a 21st-century education. ***This may mean that the role of educators will need to move towards facilitating young people's development as contributing members of society.*** 3. Teaching life skills needed for the future. In this ever-changing global environment, young people require resilience and adaptability – skills that are proving to be essential to navigate effectively through this pandemic.

To conclude, the 21st century is already the era of emerging pandemic of mental illnesses. Thus, psychological and social preparedness of this pandemic carries global importance. Teachers must appreciate the psychosocial morbidities of this pandemic and assess the burden, fatalities and associated consequences ***on students.*** ***To deal with new challenges posed by the Covid19, student must be encouraged to develop a strong emotional quotient to cope with the unprecedented situation. Student must be taught to develop a strong emotional quotient and the ability to weather ups and downs in life. Students must be encouraged to practice Yoga to improve their physical, mental and spiritual health improves concentration levels and inculcates discipline. Stigma and blame*** targeted at communities affected by the outbreak may hinder relationships among students, instigating further unrest. ***Teachers must feel that it is their duty to create a responsible class of citizens- discerning and humane- by encouraging the young to develop empathy.*** Students

should be trained to use Social media in good sense, to educate students on transmission dynamics, symptoms of disease, and time when exact medical consultations are needed. Thus, this year when student meets or start attending class in near future, teacher will have to cover extra mile to ***remove all misconception, fear and to instill confidence in students. Remember great teachers are also model learners ... and that can include learning about new technology, which they can learn with the kids. “A teacher should be an expert in learning and demonstrate the habits of mind that require great learning. They should be a model on these things for their students.” “The best innovation that inspires most young people is the teacher.”***

In this regard Gyan Vigyan Sarita's effort (through on line class room and e bulletin), to transform Teacher-Student relationship, (which is drifting fast on a commercial track), to गुरु-शिष्य tradition, professional in approach yet spiritual in essence is praise worthy and worth emulation and spreading.

Ideally Social Distancing should have been named or understood as Physical Distancing. Instead of Fear people should have been advised to adopt caution. And Lastly instead of Stigma, the disease should have evoked Empathy. The COVID-19 pandemic has clearly shown us how a “virus” can negatively impact our lives even in the 21st century and simultaneously made us realize that the greatest assets of mankind are health, peace, love, solidarity, ingenuity, and knowledge. Most importantly, it is our hope that for Generation Z, Alpha and the generations to come, these experiences of isolation and remote learning away from their peers, teachers and classrooms will serve as a cautious reminder of the importance of our human need for face-to-face social interaction.

दो बीजों को किसान ने बोया। एक बीज जब भी जमीन से उपर निकलने कि कोशिश करता, बाहर कि धूप, हवा (और पानी) से घबराकर वापस जमीन में चला जाता, अन्ततः बीज को मुर्गी, जमीन कुरेद कर, खा गयी। मगर दुसरा बीज धूप, हवा (और पानी) को जानने के लिये और जमीन के उपर आ जाता और कुछ दिन (और वर्ष) बाद वृक्ष बन गया। Choice is ours, what type of seeds we wish to cultivate out of young mind.

Considering all the above and keeping in mind that the utility of physical school is beyond completion of syllabus, needs of students and future of country, opening of schools must be considered a top priority.



Author is M.Sc.(Physics) and a retired Banker. During his career he was also a faculty, at CBD Staff College of Indian Bank, Mumbai. Post retirement he was associated with IFBI, a joint venture of ICICI Bank and NIIT, for skill development of newly recruited bank officers, and NIBM, Pune RBI's Apex College for Executive Training.

E-mail: kaleprakash23@gmail.com

Blog: pekale23.blogspot.com

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***Who cares what am I or I do, as long as I am not either useful or dreadful.
Can I take first step to befriend other by complementing my usefulness,
for the larger good.***

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*Modern cynics and skeptics... see no harm in paying those
to whom they entrust the minds of their children
a smaller wage than is paid to those to whom
they entrust the care of their plumbing.*

- John F. Kennedy

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नतीजे का इंतज़ार

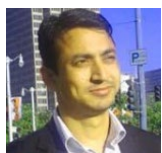
विशाल सरीन

आज की भागदौड़ की ज़िन्दगी में हर कोई अपने मुकाम को हासिल करने के लिए जी तोड़ मेहनत करता है। पसीने की हर बुँद को अपने लक्ष्य को हासिल करने के लिए भागीदार मानता है। तपती धूप हो या तूफानी बारिश, दृढ़ निश्चय वाले किसी भी रुकावट को अपनी कामयाबी में हस्तक्षेप नहीं करने देते। बढ़ते रहते हैं वो कदम जिसने कुछ करने की, कुछ पाने की ठान ली होती है।

आर्मी की भर्ती का इम्तिहान हो या किसी डॉक्टर के द्वारा ऑपरेट किये हुए मरीज के होश में आने का इंतज़ार या नर्सरी में बच्चे के दाखले का इंटरव्यू - ये इंतज़ार अथवा परीक्षा के पल जितने लम्बे होते जाते हैं, टेंशन उतनी बढ़ती जाती है। जैसे मुसाफिर का सफर - प्रतीक्षा करने वाले पारिवारिक सदस्य तय समय के बाद सिस्टम को कसूरवार ठहराने लगते हैं।

ऐसे ही हमारे मोहल्ले के राजू नामक नवयुवक ने B.A.M.S की डिग्री में दाखिला लिया। पिता ने जीवन में बहुत संघर्ष किया और अपने पुत्र के नाम से पहले डॉ लगाने की ठान ली। पाई-पाई जोड़ कर, अपना सारे खर्चे काट कर अपने बच्चे के लिए एक खूबसूरत घर बनवाया। काफी भागदौड़ करने के पश्चात, राजू का दाखिला संभव हो पाया था। अब बारी थी राजू के मेहनत करने की। मुश्किल पढ़ाई, महंगाई, दूर कॉलेज में आना जाना, कभी बस तो कभी पैदल ही फासला तय करना होता था। पसीना बहाने में जहाँ पिता ने कसर न छोड़ी थी, वहीं पुत्र ने भी कोई कमी न आने दी। आखिर उसको अपने पिता के सपनों की लाज रखनी थी।

घर के हालात पुत्र से छुपे न थे। अपनी हर ख्वाहिश को पूरा करने और माँ बाप के सपनों को साकार करने के लिए उसने दिन रात एक कर दिए। पढ़ाई के साथ-साथ एक अस्पताल में नौकरी करनी शुरू कर दी। सोचा कि जहाँ चार पैसे मिलेंगे, वहीं अनुभव भी काम आएगा। दिन में पढ़ाई, रात में नौकरी और चेहरे पर मुस्कान का ऐसा नूर की राजा साहब ने लाल के पालन-पोषण में कोई कमी न छोड़ी हो। चार साल तक मेहनत मशक्कत करते हुए इम्तिहान दिए और छुट्टियों में आराम की जगह नौकरी करते हुए नतीजे का इंतज़ार करने लगा।



लेखक भारतीय मूल के मिनेसोटा, अमेरिका स्थित आई. टी. व्यवसायिक हैं। लेखन उनका शौक है।

ई - मेल : VishalSareen2003@gmail.com



इंतज़ार की घड़ियाँ खत्म हुई और एक दिन मित्र का फ़ोन आया। बताया तुम्हारा परीक्षा का नतीजा आ चुका है। इस समय राजू की दिल की धड़कने और भी तेज हो चुकी थी। सोचा थोड़ा रुक कर देखता हूँ, पर कहाँ रोक पाया खुद को। जहाँ माँ बाप के सपनों का महल नज़र आ रहा था, वहीं दिल के किसी कोने में थोड़ा डर भी था। लेकिन दिल को संभालते हुए नतीजा देखा तो खुशी की सीमा न रही, वह उत्तीर्ण हो चुका था।

अब उससे खुशी संभल नहीं रही थी। सोचा सबसे पहले हकदार भगवान् और माँ बाप है। भगवान् का शुक्रिया अदा करते हुए माँ बाप के सामने गया, पाँव छुए और बोला मैं उत्तीर्ण हो गया। माँ बाप को तो जैसे कब के भूखे का निवाला मिल गया हो। आँखों से अश्रुधारा का प्रवाह शुरू हो चुका था, बच्चे को चूमा और बहुत आशीर्वाद दिया। घर में सबको यह खबर सुनाई और खुशी मनाई गयी।

आज के आधुनिक समय में जहाँ सन्देश पहुंचाने के बहुत संसाधन मौजूद हैं, पुत्र ने अपने माता पिता से एक ख्वाहिश व्यक्त की। और वो थी कि अपने नाना नानी को फ़ोन करके बताने की बजाये, यह खुशखबरी खुद जाकर दें। पूरा परिवार जब मिठाई लेकर नाना नानी के पास पहुंचा और नतीजे के बारे में बताया तो खुशी के आंसू संभाले न संभल पाए।

राजू का नतीजा आ चुका था, पिता की ख्वाहिश पुत्र के नाम से पहले डॉ लग चुका था। जैसे पिता के संघर्ष की लड़ाई में विजय हुई, वहीं राजू की लगन और सकारात्मक सोच ने उस सपने को साकार किया। आज डॉ राजू पूरे मन से समाज की सेवा करने के लिए तैयार है।

आइये हम सब भी अपने सपनों को साकार करने और अपनों को खुशी देने के लिए पूरी लगन से मेहनत करें। Failure is not the end of life बल्कि इससे भी सीखते हुए अपनी तरफ से पूरी मेहनत करें और नतीजे को परमात्मा की रजा में छोड़ते हुए ज़िंदगी के मीठे पलों का आनंद मानें।

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*I don't think anybody anywhere can talk about the future...
without talking about education.*

Whoever controls the education of our children controls our future.

- Wilma Mankiller

रेशमी एहसास

डॉ. अर्चना पांडेय 'अर्चि'

ऊपर नीला गगन
नीचे दुल्हन सी सजी धरती
हरी पोषाक में
बिछी है हरी घास
मुलायम चादर सी....

सुगंधित हवा
जैसे पायल बजाती हुई
रुनझुन-रुनझुन
कानों में मिसरी घोल रही है

उस मुलायम चादर नुमा घास पर
बैठे हैं हम-तुम
सौंदर्य चारों तरफ बिखरा है

आसमान से लेकर धरती तक
भावों की सुंदरता
में डूबे हुए हैं हम तुम
शांत वातावरण
तुमने जब अपनी
दोनों हथेलियों के बीच
मेरे हाथों को रखा
दोनों का दिल साथ में धड़का
यह दुनिया का सबसे सुखद अनुभूति है
तुम्हारे दिल के अंदर
अपनी धड़कन महसूस करना
हाँ, स्वर्ग है न हमारे आस-पास।



लेखिका, उदलगुरी चाय बागान, डिब्रूगढ़ असम M. A, B.Ed., Ph.D. हैं। इनका व्यवसाय शिक्षण/संपादक/अध्यक्ष हिंददेश है। इन्हें साहित्य ज्योति, साहित्य सरोवर, हिंददेश, कुंज प्रसून श्रेष्ठ रचनाकार इत्यादि सम्मान प्राप्त हैं। वे उदलगुरी चाय बागान, डिब्रूगढ़ असम निवासी हैं।

ई. मेल.-archanakumari.tsk@gmail.com

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Education is not filling of a pail, but lighting of a fire.

- William Buttler Yates

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Inetellectualism is not about criticizing or advising without any responsibility of implementation; it is about taking upon responsibility of actions for the larger good.

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साहित्य समाज का दर्पण है;
साहित्यकार की कलम में विवेक की स्याही, और धैर्य की पकड़ होनी चाहिये।

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राम मंदिर और रामराज

सुनील चौरसिया 'सावन'

हमारे मानस - मंदिर में घण्टों से राम मंदिर और रामराज को समर्पित घण्टियां गूंज रही थीं - "अब हम सब सिर्फ प्रभु श्रीराम को पूजेंगे ही नहीं, राममय जिंदगी भी जिएंगे। राममय दृष्टि, राममय सृष्टि। जितना आसान है कहना, उतना ही आसान है जीना। पुरुषोत्तम भगवान राम ने माता शबरी के जूठे बेरों को जिस श्रद्धा भाव से खाए थे उसी श्रद्धा भाव से हम भी अपने दलित एवं आदिवासी भाइयों - बहनों को अपनाएं, गले लगाएं और उन्हें भी आगे बढ़ाएं। कितना आसान काम है। हम सब करके दिखाएं। यही तो असली पूजा है। हमें पता है सिर्फ जय सिया राम कहने से प्रभु प्रसन्न नहीं होंगे। उनके पदचिन्हों पर चलना भी होगा। अपने मनोभावों को बदलना भी होगा। राम मंदिर का शिलान्यास सिर्फ साकेत (अयोध्या) में ही नहीं अपने पावन - मन में भी करना पड़ेगा। भगवान भाव के भूखे होते हैं। उन्हें भक्तों से सिर्फ भाव चाहिए - प्रेम भाव, श्रद्धा भाव, सेवा भाव और समर्पण भाव।

राजगद्दी न भाई भरत को चाहिए थी और न ही भैया राम को। वाह! कितना बड़ा त्याग है। जहां त्याग है वहीं रामानुराग है।

सच्चा सन्त - महात्मा वह होता है जिसको कण-कण में अपने इष्ट के दर्शन होते हैं। वह मंदिर - मस्जिद, धेनु - वाराह इत्यादि के प्रति समत्व का भाव रखता है।

मंदिर, मस्जिद, गिरजाघर और चर्च की बातें तो सब करते हैं लेकिन अपने - अपने इष्ट देव के सिद्धांतों को भला कौन समझने की कोशिश करता है? उनके पदचिन्हों पर कौन चलता है? नाव के सहारे सागर पर तैरने से क्या फायदा? गोताखोर बनकर सागर की गहराई में तो उतरो - रत्नामृत पाओगे, जीवन का सार समझ जाओगे।"

अर्धरात्रि में मेरे मानस- मंदिर में घण्टों से भगवान श्रीराम को समर्पित घण्टियां गूंजती रहीं कि उनकी कृपा से आंखें लग गयीं और सपना देखा-

"राम मंदिर के साथ-साथ रामराज्य की भी स्थापना हो चुकी है--
रामराज बैठे त्रैलोक्य। हरसित भए गए सब सोका।।

बयरु न कर काहू सन कोई। राम प्रताप विसमता खोई।।

दैहिक, दैविक, भौतिक तापा। रामराज नहीं काहुहि व्यापा।।

सब सुगन्ध, पण्डित, सब ग्यानी। सब कृतग्य नहीं कपट सयानी।।

- गोस्वामी तुलसीदास

प्रकृति प्रसन्न - पुरुष प्रसन्न। जन-जन हर्षित, कण-कण हर्षित।

अमीरों की अमीरी गरीबों को समर्पित। सब एक दूजे को ऊंचा और श्रेष्ठ साबित करने की चाह में मगन। वसुधा आनंदित और प्रफुल्लित गगन। स्वच्छ सलिल संग सुरभित पवन। लोक से शोक समाप्त। सर्वत्र आलोक ही व्याप्त। राजा और प्रजा का प्रत्यक्ष संबंध। महसूस करें एक दूजे की सुगंध। कर सुखद, सेवा सुखद-

बरसत, हरसत सब लखें, करसत लखें न कोय।

'तुलसी' प्रजा सुभाग से, भूप भानु सो होय।।

सहयोग, सद्भाव, सदाचार, सेवा और संस्कार से सुसज्जित रामराज में चराचर में उल्लास। सबका साथ, सबका विकास। भयमुक्त वातावरण। न बिल्ली को कुत्तों से भय, न जानवरों को मनुष्य से।

चिड़ियों के चहचहाने की आवाज कानों में गूंज उठी। आंखें खुलीं तो देखा- मुस्कुराते हुए सुरज देव उग रहे थे और दिशाएं राम सिया राम गुनगुना रही थीं। अम्बर तले जाते ही मंदिर, मस्जिद, गिरजाघर और गुरुद्वारे पर बैठे कबूतर मेरे ऊपर आकर बैठ गए और झूमते हुए " रघुपति राघव राजा राम..." गुनगुनाने लगे। साथ में एक वफादार कुत्ता भी था जिसमें मानवता मुस्कुरा रही थी। कबूतरों के मन में न तो कुत्ता से भय था न मनुष्य से। सर्वत्र प्रेम ही प्रेम। शायद वह भी रामराज का एक अद्भुत दृश्य था।

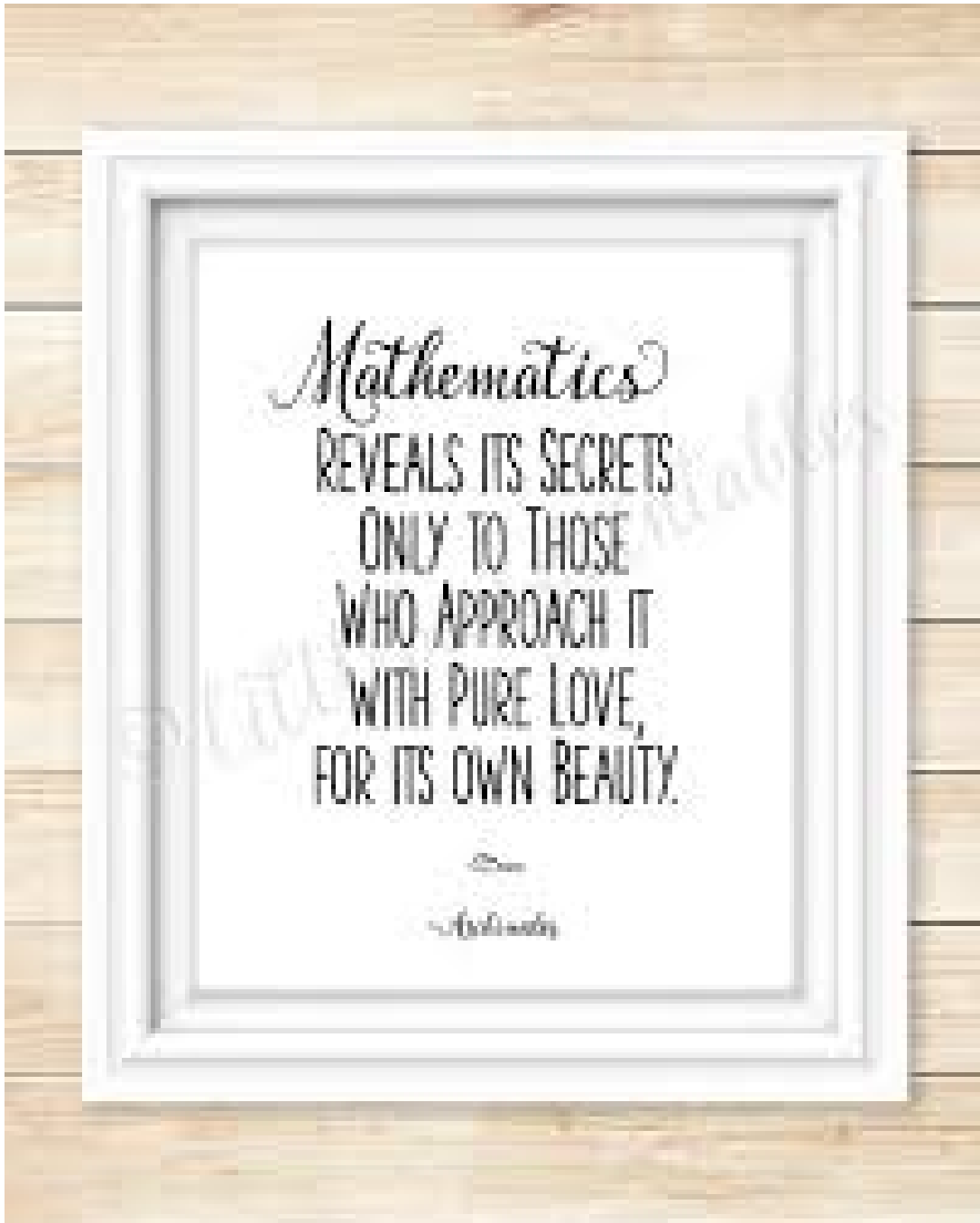




अनुवादक, प्रवक्ता, स्नातकोत्तर शिक्षक (हिंदी) एवं एनसीसी अधिकारी के पद पर केंद्रीय विद्यालय, टेंगा वैली, अरुणाचल प्रदेश, सेवा प्रदान कर रहे में हैं। आपका कार्यक्षेत्र-अध्यापन, लेखन, गायन एवं मंचीय काव्यपाठ है तो सामाजिक क्षेत्र में नर सेवा नारायण सेवा की दृष्टि से यथा सामर्थ्य समाजसेवा में सक्रिय हैं। विधा-कविता, कहानी, उपन्यास, लघुकथा, गीत, संस्मरण, डायरी, निबन्ध आदि है। आपने 'राष्ट्रीय भोजपुरी सम्मेलन' एवं 'विश्व भोजपुरी सम्मेलन' में सोलह देशों के साहित्यकारों एवं सम्माननीय विद्वेषियों-विद्वानों के साथ काव्यपाठ एवं विचार विमर्श भी किया है। आपकी रचनाएँ देश-विदेश के प्रतिष्ठित समाचार-पत्र एवं पत्रिकाओं में प्रकाशित हैं। आपको अनेक पुरस्कारों से सम्मानित किया गया है।

ई-मेल: sunilchaurasiya767@gmail.com

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चलो करें निर्माण देश का

ऊर्मिला द्विवेदी

(सुविधाओं के बढ़ते दौर में समाज में उन लोगों की संख्या बढ़ रही है जो केवल ज्ञान की बातें करते हैं पर समाजसेवा से दूर रहते हैं जबकि जरूरत है कि हम उनका ध्यान रखें जो अभी भी जीवन की दौड़ में पिछड़ रहे हैं। इन्हीं तथ्यों को कहती चंद पंक्तियाँ)

ज्ञान बांटना बंद कर
चलो करो कुछ काम
कदम बढ़ाओ घर के बाहर
बहुत किये आराम

चक्की पीसे आटा मिले
कह गये संत तमाम
आस पड़ोस के लिये सही
शुरू करो कुछ काम

दुनिया में सेवा बड़ी
ना कोई भवन कुटीर
सूर्य चमकता रोज ही
रूके ना ढूँढे ठौर

अस्पताल में जा देखो
कितने पड़े वहां लाचार
कुछ तो उनके लिये करो
जिनका नहीं कहीं घरबार

चिड़िया नित दाना चुने
तारे चलें दिन रैन
तुम क्यों बैठे आराम से
उठो छोड़ यह सैन

शिक्षा से जो जुड़ न सके
चलो पढ़ायें हम उनको
जिनके चूल्हे जल न सके
चलो खिलायें हम उनको

दूर हो कितनी भी मंजिल
मिलती है वो जरूर
चलते रहना होता है बस
बिना थके भरपूर

चलो करें निर्माण देश का
दिल के पट सब अपने खोल
बन जाँ सिरमौर विश्व का
हिंद की गूंजे फिर जयबोल



कवयित्री, एम0ए0 (समाजशास्त्र), सीनियर सिटीजंस के कल्याण के कार्यों की देखभाल, खाली समय में पढ़ना, लिखना, और पति के सामाजिक हित के कामों में हाथ बंटाना.

ई - मेल : urmiladwivedi529@gmail.com

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*Nothing is more important than education,
because nowhere are our stakes higher;
our future depends on the quality of education of our children today.*

- Arnold Schwarzenegger

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माता-पिता, शिक्षक और गुरु

श्रीमती छाया धर्माधिकारी

शाब्दिक अर्थों में माता-पिता हमारे जन्म-दाता हैं, उनके ही कारण हमें यह सुन्दर एवं रोमांचकारी जीवन प्राप्त हुआ। घर के बाहर कदम रखने पर शिक्षक पहला व्यक्ति है जो हमें स्कूल में पढ़ाई करता है। साथ ही शिक्षक किताबी पढ़ाई के आलावा कुछ और पढ़ता है जिससे हमारा व्यक्तित्व निर्माण है, हमारे जीवन में आत्मविश्वास विकसित करता है; यही हमारे आने वाले जीवन की सफलता का आधार है। ऐसा शिक्षक हमारे हृदय में गुरु का स्थान बना लेता है। आज साठ सोपान साल के सोपान पार करने के बाद भी हम सबको अपने बचपन के एक शिक्षक की जरूर याद आती होगी।

आज हम अभिभावक और शिक्षक बच्चों को सिखाते हैं कि कैसे लिखना, पढ़ना, बोलना, चलना, व्यवहार और काम करना, साथ ही यह भी सीखना बहुत अनिवार्य है कि कैसे सोचना। किताबी ज्ञान से अच्छी आय और जीवन-यापन कर सकते हैं। परन्तु गुरु जो शिक्षा देता है उससे आपने जीवन को सार्थक करने के साथ ही अगले कई जन्मों (पुनर्जन्म की

धारणा के आधार पर) को सुधार सकते हैं। क्योंकि हमारे देह त्याग के बाद हमारे सुसंस्कार ही हमारे साथ आगे चलते हैं। गुरु हमें अविनाशी शिक्षा, अविनाशी कमाई देता है जिसे कोई भी हमसे छीन नहीं सकता।

वर्तमान समय में हम अभिभावकों के सहयोग की बहुत महत्वपूर्ण भूमिका हैं। आज भारत के प्राचीन गुरुकुल नहीं हैं। वर्तमान समय की सामाजिक व्यवस्था, नैतिक-मूल्य सभी कुछ बहुत बदल चुके हैं। आज आवश्यकता है कि माता-पिता और शिक्षक दोनों मिलकर बच्चे के गुरु बनें।

हम भारतीय अभिभावकों को यह पूर्ण विश्वास होना चाहिए कि सर्व-शक्तिमान परमेश्वर हमारा एकमात्र सद्गुरु है, जो हमारा पारलौकिक पिता भी है। वह हमें भिन्न-भिन्न परिस्थितियों के माध्यम से हमें सिखाता है, बस आवश्यकता सिर्फ इस बात की है कि हम सजग रहे और ध्यान देकर परिस्थितियों का चिंतन करें, चिंता नहीं। उनसे हम सीखें और अपने व्यवहार में परावर्तन करें। यह प्रक्रिया हमारे विचारों और व्यवहार में परिवर्तन लाकर हमें सन्मार्ग पर प्रशिक्षित करेगी।



लेखिका जीव-विज्ञान एवं शिक्षा में स्नातक है। वे सेंट जोसफ कान्वेंट स्कूल, वाराणसी, में दो दशक से अधिक जीव-विज्ञान की शिक्षिका रही हैं। सेवानिवृत्ति के पश्चात् उनकी रूचि अपने अनुभव को जान हित में कार्यरूप देने तथा आध्यात्मिक अध्ययन, लेखन एवं चिंतन है।

e-Mail ID: ramkrishna.chhaya@gmail.com

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Excuses are available all around, in plenty;

Need is to be passionate and act selflessly,

with a commitment for the larger good

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Leadership: A Case Study

Adv. Jyoti Rani

When a person's quality, which is normal for himself, becomes an inspiration for all, then that person becomes a leader. And when such a person perpetuates leadership he is called "legend". Keeping oneself restrained, moderate, patient and wise in adverse circumstances is a great virtue of a leader that M.S. Dhoni has always shown. When people are expressing every second moment on their single personal achievement, Dhoni has been engaged in enhancing our country's honour internationally with many such achievements and has always given credit to the team... Lose or win both have always been accepted by him easily and in sporting manner.

There were many players in the cricket era before IPL and T-20 (I will not mention the name), when they reached the peak of cricket and seeing their falling graph their fans

used to say that- now they should retire, at that time, I used to think that why don't these people retire while living on the peak? Can there be a person who can do that? But, today in announcement of his retirement by Dhoni, I got answers to my questions.



Today everyone is sad about his decision and saying, he should have played more. He has worked as a leader, given new talent an opportunity to come forward, presented an example of sportsmanship, lived an inspiration to his team and players.

Dhoni may remain anywhere, but he will continue to rule our hearts and inspire us.



Author is certified Neuro Linguistic Trainer. She has been honoured Twice for contributions. She is extending her services in deep interior village in Bihar. Where from she was elected as District Councillor. She is actively engaged in creating awareness rural ladies about family planning and hygiene.

e-Mail: jyotishining@gmail.com

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Educations in true sense and pupose to the life.

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The value of a college education is not the learning of many facts but the training of mind to think.

- Albert Einstein

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Humanity is acquiring all the right technology for all the wrong reasons.

-R. Buckminster Fuller

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Squaring Any Two Digit Number

H.D. Motiramani

First of all let us take the case of squaring any two digit number ending with 5

Squaring 15, 25, 35, 45, 55, 65, 75, 85 and 95 is very easy using a simple logic. When we attempt square of any of such number, we always notice that in the answer 25 is always there in the end.

For example $15^2=225$ and $25^2=625$

From the answers of 15^2 and 25^2 , we make two very significant observations. Let us take for example 15^2 .

The answer 225 can be broken into two parts 2 and 25. On right hand side is 25 and on left hand side is 2. Now this 2 is the result of 1×2 . That is 1 on the left side of 15 has been multiplied by next number 2. Likewise when we look at the square of 25, we find that 625 is the answer. This means that right hand side of the answer is 25 and left hand side of the answer is 6 which is nothing but 2 multiplied by its next number 3. We can therefore apply this logic to all two digit numbers that end with 5. So the logic is: the right hand side will always be 25. Another point to note is that left hand side will be the multiplication of left hand digit of the number to be squared, by next higher integer of that number.

Let us see other examples:

$35^2=1225$ (12 on left side is the result of $3 \times$ next higher integer to 3 that is 4. Right hand side will always be 25)

$45^2=2025$ ($20=4 \times 5$ on left side of answer and 25 on right hand side. So answer is 2025)

Likewise say $75^2=5625$ ($7 \times 8=56$ on left hand side and 25 on right hand side= 5625)

So square of any two digit number that has 5 in the end can be solved mentally by adopting this simple logic.

Squaring a number that doesn't end with 5

Let us now see the squares of numbers which do not end with 5. We know that squaring any number ending with zero is very easy. For example:

$10^2=100$, $20^2=400$, 50^2 is 2500 and $100^2=10000$

Now the formula is $31^2=30^2+(30+31)=961$, Similarly $41^2=40^2+(40+41)=1681$

Likewise $81^2=80^2+(80+81)=6400+161=6561$

Now, please note: $32^2=30^2+2(30+32)=900+2 \times 62=900+124=1024$,

Similarly $42^2=40^2+2(40+42)=1600+2 \times 82=1600+164=1764$

$72^2=70^2+2(70+72)=4900+2 \times 142=4900+284=5184$

$33^2=30^2+3(30+33)=900+3 \times 63=900+189=1089$

$73^2=70^2+3(70+73)=4900+3 \times 143=4900+429=5329$

In this manner, we can do squaring for any number, say for example 88, 36, 49

$88^2=80^2+8(80+88)=6400+8(168)=6400+1344=7744$

$36^2=30^2+6(30+36)=900+6(66)=900+396=1296$

$49^2=40^2+9(40+49)=1600+9(89)=1600+801=2401$



Author is ME (Elect. Engg.), PGDBA with more than four decades of years experience in power sector from engineering, R&D, administration. Despite being engineer he did make his career in Finance and retired as Director (Finance). Post superannuation he has settled at Bhopal.

E-Mail ID: hd.motiramani@rediffmail.com

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Communication (Computer with Communication capability i.e. internet) has forged the world, which is otherwise fragmented into narrow boundaries, into a global village. All that we need to do is to connect the most deprived persons through strings of education. Communication provides the much needed solution in the form of Virtual Class Rooms.

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शिक्षक: एक अनुभूति

श्रीमती माधवी संतोष अडपावार

गुरू ब्रह्मा गुरू विष्णु गुरू देवो महेश्वर
गुरू साक्षात् परब्रह्म तस्मै श्री गुरुवे नमः

गुरु का महत्व हमारे जीवन में अनमोल है। जीवन के हर परिस्थितियों में हमें गुरु की बातें याद आती हैं और उनका हमारे जीवन में कितना महत्व है यह याद आता है। हमारे जीवन में जो हमें प्रत्येक कार्य के लिए आगे ले जाते हैं और योग्य सीख देकर योग्य दिशा दिखाते हैं वह सभी हमारे जीवन में गुरु के योग्य हैं।

महात्मा ज्योतिबा फुले और उनकी धर्मपत्नी सावित्रीबाई फुले इनका हमारे जीवन में बहुत महत्वपूर्ण योगदान है। आज यह दोनों ना होते तो शायद हम लड़कियां हर प्रतियोगिता, ज्ञान, विज्ञान और शिक्षा में इतनी अग्रेसर ना होते। वे हमारे जीवन में गुरु के योग्य हैं। डॉ. सर्वपल्ली राधाकृष्णन जी ने शिक्षा क्या है और ज्ञान का महत्व हमारे जीवन में कितना है यह बताया है। शिक्षा के बीना हम शून्य हैं। इसलिए 5 सितंबर इनके जन्म दिन के अवसर पर हम शिक्षक दिन मनाते हैं।

माता-पिता बिना विद्या अधूरी हैं और गुरु बीना ज्ञान अधूरा है। सबसे पहली गुरु हमारी माता होती है। मां हमें जीवन में जीना सीखाती है। समाज में रहना सीखाती है। समाज में योग्य और सावधानी से रहना ज्ञान सीखाता है। जब हमारा कोई विद्यार्थी ऐसा कुछ महान कार्य करता है तब विद्यार्थी के साथ साथ गुरु और माता पिता की प्रशंसा होती है तभी गुरु की पहचान सामने आती है और गुरु का महत्व दिखाई देता है। विद्या यह औपचारिक पद्धतियों से सीखाई जाती है और ज्ञान यह अनौपचारिक पद्धतियों से सीखाया जाता है। दोनों ही पद्धति एक सिक्के के दो पहलु हैं। हम जहां भी जाएं हमें यह दोनों ही पद्धति की जरूरत पड़ती है। नहीं तो हमारा जीवन अधूरा हो जाता है और इन दोनों के साथ साथ अनुभव का होना बहुत आवश्यक है। इन तीनों का अवलंबन हमारे जीवन में रहना बहुत जरूरी है और इन तीनों बातों को ही ज्ञान कहते हैं।

विद्या, अनुभव और ज्ञान से मनुष्य का सर्वांगीण विकास होता है। बच्चों का 70% शिक्षण घर और समाज में ही हो जाता है। हम माता पिता को यह बातों से सावधान रहना चाहिए। हमें ऐसी कोई बातें या व्यवहार नहीं करना चाहिए, जो की हमारे बच्चों के विकास में बांधा बन सकती है। जिनको अपने माता-पिता की प्रेरक शब्दों का सहारा मिलता है वही बच्चें जीवन में आगे बढ़ जाते हैं और अपने जीवन को एक नई दिशा देने का हमेशा प्रयास करते रहते हैं।

यह बात हम लेख अथवा बातों से बताएं तो वह बातें कुछ समय के बाद हमारे बुद्धि से निकल जाती हैं लेकिन वही बातें हम

कहानी के माध्यम से बताएं तो वह बातें हमें उम्र भर याद रहती हैं। उदाहरण में

एक का लड़का था। वह पढ़ाई में बहुत कमजोर था और मंदबुद्धि के नाम से जाना जाता था। उसके अध्यापक बार बार उसे मंदबुद्धि कहके पुकारते थे। सारे शिक्षक उसके वज़ह से परेशान हो गए थे और उन्होंने उस बच्चे को शाला से निकालने का निर्णय लिया। प्राचार्य जी ने कहा कि, हम उसे अपने में सुधार लाने का एक मौका देंगे और यह खत उस विद्यार्थी के माता-पिता को भेज देंगे। दूसरे दिन वह खत उस बच्चे के घर आया। उस बच्चे ने वह खत हात में लिया और खत के बाहर से अपने शाला का नाम पढ़ा। उसने वह खत अपने मां को दिया। मां ने खत पढ़ा। खत पढ़कर मां की आंखें आंसुओं से भर गईं। उस बच्चे ने कहा कि क्या हुआ मां तुम रो रही हो। मां थोड़ी देर अपने बच्चे को देखती रही और हंसते हुए कहा कि बेटा यह तो खुशी के आंसू हैं। तुम्हारे शाला से मेरे लिए खत आया है और कहा है कि, आपका बच्चा बहुत ही तेज है, गुरु का आज्ञा कारक विद्यार्थी है, सबके साथ प्यार से रहता है, शाला के हर प्रतियोगिता में भाग लेकर अच्छे गुणों से उत्तीर्ण होता है। बच्चे को यह बातें अपनी मां से सुनकर अपने आप पर लज्जा आने लगी और गुरु की महानता महसूस हो रही थी। तबसे उस बच्चे ने जीवन में कभी पिछे मुड़कर नहीं देखा। वह शाला में मन लगाकर पढ़ाई करने लगा। उम्र बितती गई और बच्चा अपने जीवन में बहुत आगे बढ़ गया। कुछ साल बाद उसकी मां गुजर गयी। मां जाने के बाद उसने मां के कमरे की सफाई की। सफाई करते समय उस बच्चे को वह खत मिला जो उसके शाला से उसके मां के लिए आया था। खत पढ़कर उसकी आंखें नम हो गईं क्योंकि उस खत में बिल्कुल विरुद्ध लिखा गया था। उसे आज महसूस हुआ कि वह बातें तब मेरी मां ने मुझे बताएं होती तो आज मैं दि ग्रेट साइंटिस्ट आइंस्टाइन नहीं होता। यह सब बातें मां के मेरे प्रती विश्वास के कारण ही हुआ है। मां ने हौसला ना दिखाया होता तो आज मैं यहां तक नहीं पहुंच सकता था।

जीवन में हर परिस्थितियों में परिवार का साथ होना आवश्यक है। गलतीयां हर बच्चे या मनुष्य से होती हैं। लेकिन उस गलतीयों को माता पिता ने प्यार से समझाया तो बच्चे का परिवर्तन जल्दी हो जाता है। अपने बच्चे को अपना थोड़ा समय देना आवश्यक है। यह सब प्रकीया बाल्य उम्र में ही होता है।

उस दिन आइंस्टाइन के मां ने अपने बच्चे के लिए आत्मविश्वास ना दिखाया होता तो आज हमें महान वैज्ञानिक ना मिलते।

यह सब कार्य हमारे गुरु के हाथों से होते हैं। ईश्वर ने भी कहा है की, हमारी पहली गुरु मां होती है। इनसे हम उम्र भर शिक्षा ग्रहण करते हैं और हम उम्र भर विद्यार्थी ही रहते हैं। जब हमने खुदको

विद्यार्थी मानना बंद कर दिया तब हमें ज्ञान आना बंद हो जाता है। इसलिए हमें हमेशा विद्यार्थी रहना आवश्यक है। गुरु बिना हमारा जीवन अधूरा है।

गुरु ज्ञान मूर्ति

गुरु बिन ज्ञान नहीं
ज्ञान बिन मर्म नहीं
मर्म बिन धर्म नहीं
धर्म बिन कर्म नहीं

कर्म बिन भाग्य नहीं
गुरु सम कोई नहीं
इसलिए गुरु बिन मार्ग नहीं

समर्पण, त्याग, निःस्वार्थ
की पराकाष्ठा गुरु है
समता, ज्ञान, वैराग्य से

भव्य दिव्य निष्ठा गुरु है

त्रिलोक में वंदनीय गुरु है,
सबसे पहले पूजनीय गुरु है
भूत भविष्य के वो ज्ञाता है
उनका कहा सच हो जाता है

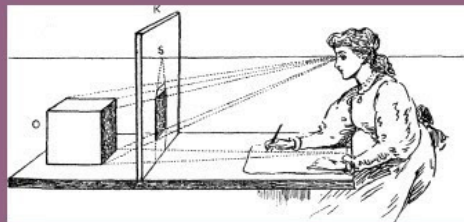
सबकुछ उनसे पाकर ही
शिष्य सफल हो जाता है
आशीष से उनके शिष्य का
जीवन धन्य हो जाता है।



रचयिता, बी ए, .बी-एड., तह- पांढरकवडा, जिला यवतमाल महाराष्ट्र निवासी, एक हैं। पठन- पाठन एवं लेखन उनकी अभिरुचि है।

ई-मेल : santoshadp5532@gmail.com

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The ultimate authority must always rest
with the individual's own reason
and critical analysis.

- Tenzin Gyatso, the 14th Dalai Lama

www.DreamThisDay.com

गुरु -शिष्य संबंध

मनोरमा प्रसाद

हर संबंधों से भी ऊपर है
गुरु -शिष्य संबंध,
हर पल प्रतिपल शिक्षा देता
प्रेरक एक अनुबंध।

वेद ,शास्त्र और धर्मग्रंथों ने भी
गुरुओं की महिमा गाई है,
निःस्वार्थ ज्ञान की निधि
जो शिष्यों पर सदैव लुटाई है।

श्रेष्ठ गुरुजनों की स्मृतियाँ
सदैव हमें प्रेरित करती हैं,
उत्साह उमंग उल्लास भरी
एक नई दृष्टि मन में भरती हैं।

मेरे राष्ट्र की उर्वर मिट्टी ने
कितने गुरुओं को जन्म दिया,
कितने कुसंस्कारों का
गुरुओं ने है अंत किया।

गुरुओं के सम्यक्ज्ञान ने
अंधेरे का अंत किया,
अंगुलिमाल जैसे डाकू को
एक ही पल में संत किया।

बड़े राजवंशों के कुमार
पढ़ने आते गुरु के आश्रम,
ब्रम्हचर्य व्रत को धारण कर
करते थे वे विद्याअध्ययन।

विश्व पटल पर मेरी संस्कृति
सदैव सम्मान पाई है,
गुरु शिष्य की परंपरा को
यह संस्कृत सदैव निभाई है।

नतमस्तक हो जाता है
श्रेष्ठ गुरुजनों के सम्मुख,
आदर सहित आशीष है लेते
गुरु चरणों में निशदिन झुक।



कवयित्री , एम.ए. संस्कृत साहित्य एवं हिंदी साहित्य, बी.एड्. यूजीसी नेट (हिंदी), साथ ही एन.एस.एस और संस्कृत संभाषण का प्रशिक्षण प्राप्त हैं। वे बाराबंकी उत्तर प्रदेश में शिक्षिका हैं। उन्हें साहित्यिक एवं सांस्कृतिक सेवाओं के लिए सम्मानित किया जा चुका है। उनकी कविताओं का राष्ट्रीय पत्रिकाओं में प्रकाशन के साथ शैक्षिक गतिविधियों में महत्वपूर्ण योगदान के साथ ही, समाज की बेटियों को शिक्षा के प्रति जागरूक करने की दिशा में अनवरत कार्य में संलग्न हैं। लोकगीत गायन में विशेष अभिरुची है। ई-मेल : manormachaurasia1974@gmail.com

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*True wisdom comes to each of us
when we realize how little we understand about life,
ourselves, and the world around us.*

- Socrates

Education- A Perspective

K B Singh

Why is Education So Important in Our Lives? The first thing that strikes me about education is knowledge gain. Education gives us a knowledge of the world around us and changes it into something better. It develops in us a perspective of looking at life. It helps us build opinions and have points of view on things in life. People debate over the subject of whether education is the only thing that gives knowledge. Some say education is the process of gaining information about the surrounding world while knowledge is something very different. They are right, but then again, the information cannot be converted into knowledge without education. Education makes us capable of interpreting things among other things. It is not just about lessons in textbooks. It is about the lessons of life. One thing I wish I can do is, to provide education for all: no child left behind and change the world for good!!

Education is the most significant tool in eliminating poverty and unemployment. Moreover, it enhances the commercial scenario and benefits the country overall. So, the higher the level of education in a country, the better the chances of development are. In addition, this education also benefits an individual in various ways. It helps a person take a better and informed decision with the use of their knowledge. This increases the success rate of a person in life. Subsequently, education is also responsible for providing with an enhanced lifestyle. It gives the career opportunities that can increase your quality of life. Similarly, education also helps in making a person independent. When they are educated enough, they won't have to depend on anyone else for the livelihood and will be self-sufficient to earn for themselves and lead a good life. Above all, education also enhances the self-confidence of a person and makes certain of things in life. When we talk from the country's viewpoint, even then education plays a significant role. Educated people vote for the better candidate of the country. This ensures the development and growth of a nation thus the decisions are more logical and result oriented.

When talking about the education people often confuse it with schooling. Many may think of places like schools or colleges when seeing or hearing the word. They might also look to particular jobs like teacher or tutor. The problem with this is that while looking to help people learn, the way a lot of schools and teachers operate is not necessarily something we can properly call education. They have chosen or fallen or been pushed into 'schooling' – trying to drill learning into people according to some plan often drawn up by others. Such 'schooling' too easily descends into treating learners like

objects, things to be acted upon rather than people to be related to. Education, as we understand it here, is a process of inviting truth and possibility, of encouraging and giving time to discovery. It is a social process – 'a process of living and not a preparation for future living'. In this view educators look to act with people rather on them.

Education: It is an important tool which is very useful in everybody's life. Education is what differentiates us from other living beings on earth. It makes man the smartest creature on earth. It empowers humans and gets them ready to face challenges of life efficiently. With that being said, the education remains a luxury to a section and not a necessity. But, this remains incomplete without first analyzing the importance of the education.

Education is about learning skills and knowledge. It also means helping people to learn how to do things and support them to think about what they learn. It is also important for educators to teach ways to find and use information. Through education, the knowledge of society, country, and of the world is passed on from generation to generation. This may include education in morality, for example learning how to act as loyal, honest and effective citizen. Education may help and guide individuals from one class to other. Educated individuals and groups can do things like, help less educated people and encourage them to get educated.

Since it has been seen to be necessary to give so much to the child, let us give him a vision of the whole universe. The universe is an imposing reality, and an answer to all questions. We shall walk together on this path of life, for all things are part of the universe and relate to each other to form one whole unity. This idea helps the mind of the child to become fixed, to stop wandering in an aimless quest for knowledge. The process of education flows from a basic orientation of respect – respect for truth, others and themselves, and the world. It is an attitude or feeling which is carried through into concrete action, into the way we treat people, for example. Respect, is derived from the Latin *respicere*, meaning 'to look back at' or 'to look again' at something. In other words, when we respect something, we value it enough to make it our focus and to try to see it for what it is, rather than what we might want it to be. It is so important that it calls for our recognition and our regard – and we choose to respond.

Types of education: There are different ways to categorize education, for example by age or subject. One

way is to divide it into formal education, non-formal education, and informal education.

Formal education is usually in school, where a person may learn basic, academic, or trade skills. Small children often attend a nursery or kindergarten but often formal education begins in elementary school and continues with secondary school. Post-secondary education (or higher education) is usually at a college or university which may grant an academic degree.

Non-formal education includes adult basic education, adult literacy education or school equivalency preparation. In nonformal education someone (who is not in school) can learn literacy, other basic skills or job skills. Home education, individualized instruction (such as programmed learning), distance learning and computer-assisted instruction are other possibilities.

Informal education is less organized. It may be a parent teaching a child how to prepare a meal or ride a bicycle. People can also get an informal education by reading many books from a library or educational websites. This may also be called self-education.

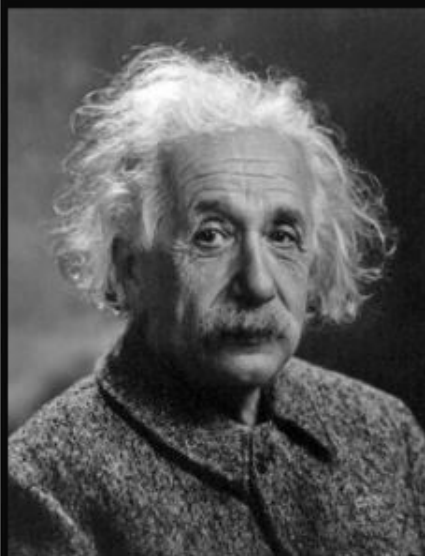
The education and/or learning never stop but when stopped that is the end. Each day there is something to teach or something to learn and do things in a better way or live life in a better way. Lucky are those who share their thoughts freely or are ready to take anything worth. Salute to all those who are dedicated in this task of education and fortunate are those who get such divine people. The education and learning go hand in hand with a never stop process



Author is Engineering graduate (Gold Medalist), and Master from prestigious institutes of India and North America, respectively. He has more than four decades' experience in IT, Business architecture, planning, strategy and management holding diversified vertical portfolios. He retired as VP from Reliance ADA group, and prior to that he worked on hosts of successful ventures in leading corporates both national and multi-national viz. American, British, Japanese and German.

e-Mail: kbsingh@KavvY.in

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Never regard study as a duty, but as the enviable opportunity to learn to know the liberating influence of beauty in the realm of the spirit for your own personal joy and to the profit of the community to which your later work belongs.

(Albert Einstein)

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शिक्षक दिवस विशेष

संतोष राजाराम अडपावार

गुरु गोविन्द दोनों खड़े, काके लागु पाय।
बलिहारी गुरु आपनो, गोविन्द दियो मिलाय।

-- संत कबीर दास

इस दोहे में संत कबीर दास जी ने गुरु की महिमा का बहुत ही सुंदर बखान किया है। वे कहते हैं गुरु ही है जो हमें भगवान की पहचान कराते हैं, गुरु बिना मार्ग नहीं। सच भी है, गुरु ही सच्चे अर्थों से हमारे तारणहार है। एक शिक्षक अपने जीवन काल में कितने ही विद्यार्थियों का जीवन बनाते हैं। उन्हें अपने पैरों पर खड़ा होने में, जीवन में सफल होने में मदद करते हैं। शिक्षा जैसा पवित्र कार्य दूसरा कोई नहीं है। कहते हैं बच्चों के हाथ में देश का भविष्य है, पालक वर्ग के हाथों में देश का भविष्य है परंतु मेरे मतानुसार देश का भविष्य सही मायने में शिक्षक के हाथों में है। वे ही बच्चों को अच्छी शिक्षा देकर एक सुंदर समाज का निर्माण कर सकते हैं और हमेशा से यही महत्वपूर्ण कार्य शिक्षक (गुरु) कर रहे हैं।

पूर्ण निस्वार्थ भाव से विद्यार्थियों के उज्ज्वल भविष्य के लिए मार्गदर्शन करते हैं। उनके सर्वांगीण विकास के लिए खुद कितनी ही तकलीफें झेलते हैं। गुरु ऐसे व्यक्ति हैं जो चाहते हैं कि उनका शिष्य उनसे आगे जाए। अपने पास का सारा विद्या धन शिष्यों पर लूटाते हैं। समाज को अच्छे और सच्चे इंसान, योद्धा और

कर्मशील विद्वान, वैज्ञानिक और भी बहुत उपयोग रत्न देते हैं। प्रत्येक मनुष्य हिरा ही होता है परंतु कच्चे कोयले के रूप में होता है। उन पर की गंदगी हटाने का कार्य, उन्हें तराशने का कार्य और उन्हें चमकदार कांतिमय बनाने का सबसे महत्वपूर्ण कार्य गुरु करते हैं। उन्हें समाज में सुशोभित हिरा बनाना सिर्फ और सिर्फ गुरु शिक्षक के हाथों में है। कच्ची मिट्टी को घड़े का रूप देते हैं। गुरु ही हमें हर मुश्किल से उभरने की कला सीखाते हैं। कभी प्यार से कभी फटकार से तो कभी सजा देकर भी अच्छी शिक्षा देते हैं। उनके प्रत्येक बात में या कार्य में शिष्यों की भलाई ही छुपी रहती है।

इनका सभी के जीवन में बहुत ही महत्वपूर्ण स्थान है। आज भी यह स्थान उन्हें यूँ ही बरकरार रखना होगा। जैसा हमारे पहले उपराष्ट्रपति डॉ. सर्वपल्ली राधाकृष्णन जी ने अपने जीवन चरित्र में बनाया था। उनकी याद में यह दिन शिक्षक दिवस के रूप में मनाया जाता है। ताकि सभी विद्यार्थी और शिक्षक उनके चरित्र से प्रेरणा लेकर सुंदर समाज का निर्माण कर सकें।

गुरु-ज्ञान दीप

गुरु से संसार की पहचान है
गुरु से भगवान की पहचान है
पहली गुरु माता, पिता है
सब गुरुओं का क्रम बाद में आता है
गुरु ही पथदर्शक है
हर राह का मार्गदर्शक है
हर तरह का ज्ञान देकर
परिक्षाओं में बनता दर्शक है
कंटक पथ से भी
ध्येय तक पहुंचाते है
हर संकट से उबरने की

कला सीखलाते है
अज्ञानी से ज्ञानवान बनाते है
अखंड ज्ञान की मूर्ति वो कहलाते है
दोषों का अंत कर निर्मल हमें बनाते है
साधारण से असाधारण भी हमें बनाते है
पग पग पर मजबूती गुरु ही देते है
शिक्षा संस्कार से योग्य बनाते है
हर भ्रम, संदेहो को मिटाते है
हर अहंकार को प्यार से तोड़ते है।
गुरु का कार्य बड़ा पवित्र है
ज्ञान देने की पद्धति बड़ी विचित्र है

ये हमारे ना सखा है ना मित्र
पर सदा हमपे छिंटकते ज्ञान का इत्र हैं
परम कल्याण का मार्ग दिखा कर,
भूल का दंड भी देते है बार बार
परम वैभव की ओर कर अग्रेसर
ना लेते मोल इनका बार बार
गुरु चरणों में समर्पण हृदय का कर
तब हममें बहते वो बन ज्ञान की धार
गुरु की महिमा हैं अपरंपार
गुरु चरणों में वंदन बारंबार।



लेखक, तहसील -पांढरकवडा, यवतमाल, महाराष्ट्र निवासी, बी.ए. शिक्षा प्राप्त कर व्यापार में लग गये, पठान एवं लेखन उनकी रूचि है। उनका एक काव्य संग्रह प्रकाशित हो चुका है और उन्हें साहित्य कढ़ेतीरा में कई पुरस्कार से सम्मानित किया गया है।

ई-मेल: santoshadp5532@gmail.com

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Inetellectualism is not about criticizing or advising without any responsibility of implementation; it is about taking upon responsibility of actions for the larger good.

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GROWING WITH CONCEPTS

Concepts of an expert are not like a static foundation of a huge structure; rather it is like blood flowing in a vibrant mind.

Growing into an expert, is a process during which each one must have used best of the books available on subject and received guidance of best of the teachers. Authors might have had limitations to take every concept thread bare from first principle and so also must be the constraint of teacher while mentoring a class with a diversity of inquisitiveness and focus. As a result, there are instances when on a certain concept a discomfort remains. The only remedy is to live with the conceptual problem and continue to visualize it thread bare till it goes to bottom of heart and that is an ingenious illustration.

In this column an effort is being made to take one topic on Mathematics, Physics and Chemistry in each e-Bulletin and provide its illustration from First Principle. We invite all experts in these subjects to please mail us their ingenious illustrations and it would be our pleasure to include it in the column.

We hope this repository of ingenious illustrations, built over a period of time, would be helpful to ignite minds of children, particularly to aspiring unprivileged students, that we target in this initiative, and in general to all, as a free educational web resource.

This e-Bulletin covers – a) [Mathematics](#), b) [Physics](#), and c) [Chemistry](#). This is just a beginning in this direction. These articles are not replacement of text books and reference books. These books provide a large number of solved examples, problems and objective questions, necessary to make the concepts intuitive, a journey of educational enlightenment.

Looking forward, these articles are being integrated into [Mentors' Manual](#). After completion of series of such articles on Physics it is contemplated to come up representative problems from contemporary text books and Question papers from various competitive examinations and a guide to their solutions in a structured manner, as a dynamic exercise to catalyse the conceptual thought process.

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Changing Paradigms of Education

Rajas Pandey

The covid19 pandemic has affected all our lives in some way or the other. All professions which relied on social interactions have been forced to rethink their models. While technology has enabled some interactions to happen smoothly, the transition in others has been quite difficult. While there have been lots of debates and discussions addressing these rapid transitions in society and our behaviours, one group that has often been ignored is our future - the students. In particular, the issues of the younger, school-going students do not get addressed because feedback mechanisms from children to schools or children to parents does not exist. With the possibility of schools functioning in their original avatar looking increasingly unlikely, it is imperative to address some of these concerns. Through this essay, I attempt to highlight some of the issues I see being faced by the schools and their students, paint a picture of what the future of this age-old tradition might look like.

I should begin with a disclaimer. I do not have any background in imparting education or experiencing online teaching first hand. My observations come from being in a family surrounded by teachers covering a wide range of subjects right from language to science and from pre-primary to students preparing for professional courses. This brings me an opportunity to help them to cope up with the new challenges these times have thrown our way. The pandemic allowed me to work from home and coming from a background in technology, I became the de facto technology consultant for all the teachers in my family and assisted their transition to the new normal.

So what has been the story so far? The schools have insisted that the curriculum be followed like any other year, with all content being delivered online either through live classes or recorded material uploaded by the teachers. This is partly because of the requirements of the standardized board exams in higher classes, and partly to assuage the concerns of the parents who have been skeptical of paying the full tuition. What this has meant for the teachers is that they have had to significantly upskill themselves and adapt to technology. The teachers in my family, who have spent decades honing themselves in the art of classroom teaching have suddenly been required to make PowerPoint presentations and conduct classes on Zoom. Needless to say, this has been a significant challenge for them to overcome, often hampering the quality of their outputs.

For older students, it is still easier to manage because the teacher is responsible for the delivery of the content only. For the primary age students, where the teacher is not only responsible for the content delivery but also the

overall development of the child, the online teaching model offers little help.

Another problem this has highlighted is the accessibility of technology for the students. All the students, particularly young ones, do not have their personal computers. Some older students have smartphones, which are being used to access the classes, but their efficacy in providing education is questionable. With primarily online looking like the path ahead in the future, there is a growing concern about the disparity between the kids whose parents who can afford the internet-enabled technology and those who can't.

This leads us to question the roles of schools in the future. The teacher-student interaction has been an integral part of our system, and our government continues to spend a lot of money trying to ensure the lowest possible teacher-student ratio in the schools run by them. Parents too consider it an important metric while deciding between schools to send their kids to. However, simply having a low ratio without giving any thought to the quality of the teaching and learning outcomes is not fruitful. Especially in the era of online education, students would be better placed to study the same content from the best possible teachers of that topic from across the world than restrict themselves to just the teachers available in their locality or hometown. Many startups are creating quality educational content, and there are also personal and non-commercial initiatives like Gyan Vigyan Sarita bringing about this democratization of education. The best educational content on any topic, right from kindergarten to university, is just a few clicks away.

This idea of expert-created educational content will help eliminate quality disparity among regions and income levels of the students. All students will potentially have access to the highest quality of educational material. The New Education Policy talks about the students having the choice to pursue any subject. An online classroom model would also ensure that the choices of students are not restricted just to subjects available in their schools.

Schools and the local teachers would then play a different role than imparting of knowledge. They would act more as enablers and counsellors, acting as guides to students rather than their primary source of content. The role of the teachers would be to connect the dots for students between the study materials and what they see around them. Schools would focus more on the applied aspects of education, like experiments and activities for students. Perhaps the teaching resources we have, would be more useful if utilised for the younger children, where

individual attention can influence a child's holistic development more significantly.

Our education system wasn't ideal, and this pandemic has given it a much-needed push away from its state of inertia. The model I've described relies a lot on increasing

accessibility of internet-enabled devices to schools and children, and comprehensive digital training for our teachers. But, the pace of adoption of digital learning has shown that we might be on the cusp of a long term positive change.



Author is a graduate of BITS Pilani with an MSc in Economics and a BE in Computer Science. He is currently working as a Research Associate at the Center for Policy Research in New Delhi. He is interested in issues related to public policy and the impact of technology on our society. He is one of those students with whom this initiative was implanted when he was in middle school.

e-Mail ID: pandey.rajas629@gmail.com.

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गुरवे नमः।

डॉ. संगीता पाहुजा

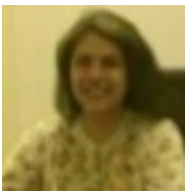
गुरु, शिष्य का है, एक अद्भुत नाता
जिनके पथ प्रदर्शन से, हर दुविधा का अंत हो जाता।

शिष्य के अनगिनत प्रश्नों की बाढ़ का सेतु है शिक्षक।
अनेक भ्रांतियों की धूल का विमोचन है शिक्षक।

शिष्य के गुणों को उजागर करते शिक्षक
स्वयं की स्वयं से पहचान करवाते शिक्षक।

कोरे कागज से निश्छल नन्हे विद्यार्थियों को संसार से अवगत करवाते शिक्षक।
बुद्धि का सदुपयोग, बुद्धि का विकास करवाते शिक्षक।
सभी बुद्धिजीवों का आधार है शिक्षक।

हमसे पहले हमारे गुणों अवगुणों से अवगत हो जाते शिक्षक।
धरा से जुड़कर ऊंचाइयों को छूने का ज्ञान है शिक्षक।
सभी बुद्धिजीवों का आधार है शिक्षक।



कवयित्री आयुर्वेदिक चिकित्सक हैं। आपने B.A.M.S. की उपाधि M.D. University, रोहतक से प्राप्त की। आपके दिल्ली एवं नॉएडा में परामर्श केंद्र है। धार्मिक, नारी एवं समाज उत्थान कार्यों में आपकी विशेष रूचि है। संपर्क: मो. क्र. - 9953967901,

ई-मेल: sangeeta.pahuja3@gmail.com

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कोरोना में बप्पा मोरिया

क्रांति (येवतीकर) कनाटे

इस वर्ष 22 अगस्त से 1 सितंबर तक गणेशोत्सव मनाया जाना है, इस प्रसंग के अनुरूप यह एक प्रयास है कि इस उत्सव की ऐतिहासिक परंपरा को जानते हुए हम उसके बदलते हुए आधुनिक संदर्भ तक जाकर उसे एक नया स्वरूप देने का निश्चय करें। गणपति अर्थात् हर दृष्टि से एक अनोखे-अद्भुत देव, शिव के गणों को परास्त कर जो गणेश कहलाए, गणराज कहलाए; अपनी काया के कारण जो गजराज/गजानन कहलाए, देवों के देव, किसी भी शुभ कार्य में प्रथम पूजा के अधिकारी, ऋद्धि-सिद्धि के भरतार भी, दाता भी, सर्व कलाओं के अधिष्ठाता, भारतीय संस्कृति, समाज तथा साहित्य में सर्वव्याप्त, एक सौ आठ नामधारी एकदंता असुरों के लिए विघ्नकर्ता हैं तो देवों के लिए विघ्नहर्ता हैं; वे जनसाधारण के लिए सुखकर्ता- दुःखहर्ता हैं तो अपने आप में 'सूर्यकोटि समप्रभ' हैं। महादेव शंकर में यदि हमने अर्ध नरनारीश्वर की कल्पना की है तो गजानन में नरपशु की। कल्पना के स्तर पर भी यह अद्भुत है और वास्तविकता के स्तर पर भी क्योंकि गणपति का यह स्वरूप हमारी प्राचीन अत्यंत विकसित शल्यचिकित्सा का प्रमाण है। अपनी संकल्पनाओं में अपने आप में गणेश जी एक अनुपमेय देवता हैं। वे सम्पूर्ण पृथ्वी की प्रदक्षिणा करने के स्थान पर मात्र माता की प्रदक्षिणा करके उसकी विशालता का परिचय देते हैं। उनका वाहन मूषक है जो तीव्र गति का भी प्रतीक है और छोटे वाहनों के महत्त्व को भी प्रतिपादित करता है। वे हमारे सर्व प्रथम दृग्गति से लिखने वाले लिपिक रहे हैं जिन्होंने महर्षि वेदव्यास के मुख से निकली महाभारत की कथा को (कहा जाता है कि) एक बैठक में लिख दिया था।

वैचारिक दृष्टि से गणेश जी अत्यंत आधुनिक, दूरदृष्टा तथा प्रयोगधर्मा रहे हैं। एक कथानुसार जब देवांतक तथा नरांतक असुर बंधुओं से युद्ध में गणेश जी की सेनाएं थक जाती हैं तब उन्हें विश्राम देने हेतु ऋद्धि-सिद्धि अपनी स्त्री सेना लेकर युद्धक्षेत्र में असुरों का सामना करती हैं जो तत्कालीन स्त्री सैन्यशक्ति का द्योतक है तथा गणेश जी के रणकौशल एवं प्रबोध का भी कि उन्होंने अपनी पत्नियों को युद्धशास्त्र में पारंगत किया था।

सर्वाधिक आकर्षक- सर्वाधिक लोकप्रिय तथा जन-जन की कामना पूर्ण करने वाले गणेश वैदिक काल से हमारे आराध्य रहे हैं। अथर्ववेद में गणपति की स्तुति में लिखा 'अथर्वशीर्ष' भक्तों के लिए एक रक्षाकवच का कार्य करता है। चालुक्य, सातवाहन तथा राष्ट्रकूट के राजपरिवारों में भी गणेश पूजन के प्रमाण पाये गए हैं। समर्थ रामदास ने 'श्रीमनाचे श्लोक' के आरंभ में कहा है,

गणाधीश जो ईश सर्वा गुणांचा।

मुळारंभ आरंभ तो निर्गुणाचा॥

नमूं शारदा मूळ चत्वार वाचा।

गमूं पंथ आनंत या राघवाचा ॥

(गणेश जी शिव के सारे गणों के अधीश हैं, वे सर्व गुणों के ईश हैं, वे सर्व निर्गुण (अमूर्त) के उदगम स्रोत हैं, उनके पश्चात् चत्वार वाचा(परा, पश्यंती, मध्यमा, वैखरी) की अधिष्ठात्री शारदा को नमन करके हम श्रीराम के बताए सन्मार्ग पर अग्रसर होते हैं।)

स्वाभाविक है कि राष्ट्रभक्त संत रामदास के शिष्य शिवाजी ने सर्वप्रथम गणेश पूजन को सार्वजनिक रूप देकर इस माध्यम से मुगलों के अत्याचार के विरुद्ध जनचेतना जगाने का कार्य किया। बाजीराव द्वितीय के शासन काल में भी सार्वजनिक रूप से गणेशोत्सव मनाया जाता था। 1818 में पेशवाई के पतन के साथ पुणे के शनिवार वाडे पर 'युनियन जेक' फहराया और इसीके साथ सदा के लिए मराठा शासन के स्वर्णिम युग का अंत हो गया और पेशवाई में सुसज्जित शुद्ध सोने से निर्मित हीरे-जवाहरात से जुड़ी गणपति की मूर्ति (तब जिसका मूल्य पचास हजार पाउंड आँका गया था) किसी संग्रहालय की शोभा बनने हेतु पुणे को बिदा कर गई।

पराधीन भारत में भी ग्वालियर तथा बड़ौदा राज्यों में शिंदे तथा गायकवाड राजपरिवार धूमधाम से गणेशोत्सव मनाया करते थे और इसीसे प्रेरित होकर लोकमान्य बालगंगाधर तिलक ने इसे 1893 में सार्वजनिक रूप से दस दिवस तक मनाए जाने की अथश्री की जिसके मूल में थी धार्मिक उत्सव के माध्यम से एक राजनैतिक जागरूकता लाने की राष्ट्रीय भावना। तिलक के सत्प्रयासों से इस उत्सव ने ब्राह्मणों तथा ब्राह्मणेतर जातियों के मध्य एक सेतु का कार्य किया। घर की चारदिवारी से निकले इस उत्सव को मोहल्लों का मंच मिला। यह गणेश जी का आशीर्वाद था, उनके प्रति आकर्षण था और थी तिलक की दूरदृष्टि कि इस उत्सव ने शीघ्र ही एक व्यापक रूप धारण कर लिया। पुणे और मुंबई नगर की सीमा पार करता हुआ गणेशोत्सव महाराष्ट्र भर में और फिर देश भर में मनाया जाने लगा। कालक्रम में इसका रूप बदलता गया क्योंकि इस उत्सव के पीछे की मूल भावना भी बदल गई परंतु उसकी चर्चा बाद में। पहले उल्लेख उस मूल गणपति स्थापना, पूजा तथा विसर्जन का, जिसे पीढ़ियों से घर-घर में अपनी-अपनी परंपरा के अनुसार आज भी अत्यंत श्रद्धाभाव से मनाया जाता है।

गणपति महाराष्ट्रियों के आराध्य देव भी हैं और बंधु-सखा सम भी, वे जिस आदर भाव से हमारे देवघर में प्रतिष्ठित हैं उसी कलात्मक भाव से हमारे ड्राइंग रूम की सज्जा का भी एक भाग बनते हैं। आज भी बच्चों को जब पहली बार अक्षरज्ञान करवाया जाता है तो उसका आरंभ 'श्री गणेशाय नमः' से किया जाता है। बोलचाल की भाषा में भी जब हम किसी शुभ कार्य का प्रारंभ करने जाते हैं तो अनायास मुँह से निकल पड़ता है, 'चलो इसका श्रीगणेश हो जाए'।

भाद्रपद माह के शुक्ल पक्ष की चतुर्थी गणेश जी की जन्मतिथि होने से यह विनायकी चतुर्थी भी कहलाती है। यह एक विशिष्ट दिवस है जिसकी आतुरता से प्रतीक्षा की जाती है। घर-घर में पीढ़ियों से मनाए जाने वाला यह पर्व हर्षोल्लास तथा सुख-शांति का प्रतीक है। गणपति किसी के घर पूरे दस दिन तक आतिथ्य ग्रहण करते हैं तो कहीं 1, 3, 5, 7 दिन तक घर की अतिरिक्त पूजा का मान पाते हैं, यह प्रत्येक ब्राह्मण परिवार को मिली वह वंश परंपरा है जिसमें कभी कोई परिवर्तन नहीं किया जाता है। यह पार्थिव गणेश पूजन है क्योंकि यहाँ सीधे-सीधे पृथ्वी से संवाद स्थापित किया जाता है। घर में पूजे जाने वाले गणपति की प्रतिमा सदा से छोटी लाई जाती है। गणेश जी की सूँड का उनके बाएँ ओर मुड़ा होना आवश्यक है और आवश्यक है कि मूर्ति बैठक लगाए हुए हो। गणपति की पत्नी सिद्धि उनके दाएँ ओर बिराजती है और सिद्धि है कठोर हृदय की स्वामिनी अतः उनकी पूजा-अर्चना के नियम भी कठोर होते हैं यही कारण है कि घरों में सदा बाएँ सूँड के गणपति बिराजते हैं क्योंकि गणपति के बाईं ओर बिराजने वाली ऋद्धि है कोमल हृदय। यहाँ यह भी उल्लेखनीय है कि दाएँ सूँड वाले गणपति सिद्धि विनायक कहलाते हैं उदाहरणार्थ मुंबई (प्रभादेवी) के सिद्धि विनायक जिन्हें अत्यंत जागरूक माना गया है।

घर में स्थापित गणेश की प्रतिमा को आप कभी खड़े हुए या किसी अन्य मुद्रा में नहीं पाएंगे। यह मूर्ति एक विशेष प्रकार की काली मिट्टी जिसे 'शाडु' कहा जाता है से ही बनाई जाती है। अब तो पहले से ऑर्डर देने पर ही इस प्रकार की मूर्ति शहरों में उपलब्ध हो पाती है। यह मिट्टी अत्यंत घुलनशील होती है। पृथ्वी तत्त्व से बनी इस मूर्ति के अंततः जल तत्व में विसर्जित होने तक की जो प्रक्रिया है वह रोचक भी है, भावभीनी भी है; वह पूरे परिवार को एक सूत्र में जोड़ने का प्रयास भी है और हमारी एक सांस्कृतिक झलक भी। गणपति की मूर्ति सदा पटिये पर ही रखी जाती है। इसे खरीदने की भी एक प्रथा है। गणपति की मूर्ति खरीदने के बाद मूर्तिकार के यहाँ जिस पटिये पर से इसे उठाया जाता है वहाँ सुपारी तथा पान का पत्ता रखा जाता है। मूर्तिकार को मूल्य के साथ नारियल भी दिया जाता है। यह मूर्ति गाजे-बाजे के साथ घर लाई जाती है, द्वार पर उसका स्वागत होता है, नज़र उतारी जाती है।

शुभ मुहूर्त देखकर विनायकी चतुर्थी को घर के देवालय में मूर्ति की स्थापना विधिवत रूप से की जाती है। पूजा के अवसर पर ही पहनी जाने वाली रेशमी धोती तथा उत्तरीय धारण कर जब घर का कर्ता पुरुष गणपति की स्थापना करता है तब पूरा परिवार वहाँ बैठकर उसका साक्षी होता है। पूजा की सामग्री हल्दी, कुंकुम, सिंदूर, अक्षत, चंदन, कपूर, अगरबत्ती, दीपक, इत्र से वातावरण सुगंधित भी हो उठता है और पवित्र भी। गणपति की स्थापना से पहले पटिये पर चाँवल से एक चौकोर आकृति निकाल कर मध्य में कुंकुम से स्वास्तिक माँडा जाता है। मूर्ति में प्राणपतिष्ठा से पहले शंख, घंटा तथा दीप की पूजा की जाती है। दूर्वा के माध्यम से पानी, पंचामृत, इत्र छिड़कर मूर्ति को प्रतीकात्मक रूप से स्नान कराया जाता है। तत्पश्चात् गंध, अक्षत तथा गणेश जी के प्रिय जासवंद के

फूलों से उनकी पूजा की जाती है, आरती उतारी/गाई जाती है। 'अथर्वशीर्ष' का पाठ होता है, गणेश जी के प्रिय मोदक तथा लड्डू का नैवेद्य चढ़ाया जाता है। इसके पश्चात् जितने दिन गणेश जी घर में स्थापित हों सुबह-शाम पूरा परिवार मनोयोग से पूजा अर्चना, आरती में सहभागी होता है। विसर्जन की भी एक विशिष्ट प्रक्रिया है। जिसके अंतर्गत फिर शुभ मुहूर्त में 'उत्तरपूजा' की जाती है फिर जिस पटिये पर गणपति की स्थापना की गई हो उसके सहित मूर्ति को पूरे घर के दर्शन करवाए जाते हैं। 'गणपति बप्पा मोरिया, पुढच्या वर्षी लौकर या' के आग्रह के साथ उन्हें घर से बिदा किया जाता है। मूर्ति का विसर्जन अपनी-अपनी श्रद्धा तथा सुविधानुसार घर के घर में अथवा समीप के नदी, कुएँ में किया जाता है। विसर्जन के पश्चात् उस स्थान की थोड़ी-सी मिट्टी लाकर अवश्य ही घर के कोने-कोने में बिखराई जाती है।

लोकमान्य तिलक ने आरंभ किए गणेशोत्सव को इस साल ठीक एक सौ सत्ताईस वर्ष पूरे हो गए हैं। आधुनिक गणेशोत्सवों की तुलना उस काल के उत्सव से करना किसी भी प्रकार से उचित न होगा। जिस उद्देश्य को लेकर सार्वजनिक गणेशोत्सव का आरंभ हुआ था उसने काल के प्रवाह में स्वयं को सार्थक किया है। आज की बात करें तो घोर निराशा के अलावा हाथ में कुछ नहीं आएगा परंतु वर्तमान परिवेश में बात मात्र गणेशोत्सव अथवा किसी अन्य पर्व/त्योहार के परिवर्तित विकृत स्वरूप की कैसे की जा सकती है। पिछले कुछ दशकों में हमारी जीवन-शैली में, हमारी मान्यताओं में, हमारी विचारधारा में जो अधोगामी परिवर्तन आया है और उसके चलते स्वतंत्र भारत में हमारी संस्कृति पर जो मर्मांतक प्रहार हुआ है उसका सिंहावलोकन-विहंगावलोकन होना अत्यंत आवश्यक है। हमारे ही देश में हमारी मूलभूत मान्यताएँ पराजित हुई प्रतीत होती हो रही है। कब 'गुरुपूर्णिमा' को विस्थापित कर हम 'टीचर्स डे' मनाने लगे मालूम न हो सका। कब हमने बच्चों के जन्म दिन पर उनको कुंकुम-रोली लगाकर आशीर्वाद देने के स्थान पर सजे-सजाए केक पर जली मोमबत्तियाँ बुझाना शुरू कर दिया खबर न हुई। पहले जलता दिया अचानक बुझ भी जाता तो अपशकुन लगता। अब हम हँसते-हँसाते मोमबत्तियाँ बुझाते हुए जन्मदिवसोत्सव माना रहे हैं। अब नए वर्ष का आरंभ चैत्र प्रतिपदा की स्वर्णिम भोर से न होकर 31 दिसंबर की मध्यरात्रि से किया जा रहा है। सारे जीवनमूल्य बदल गए हैं, सारी अवधारणाएँ बदल गई हैं और इस परिवर्तन के फलस्वरूप हमारी, वेषभूषा- खानपान- रीति-रिवाज़ सब कुछ केवल बदला ही नहीं है, एक तरह से खारिज ही हो गया है। जब अपनी भाषा बोलना ही पिछड़ेपन का प्रतीक हो गया है तो 'भारत' का 'इंडिया' तो होना ही था।

गणेशोत्सव का वर्तमान स्वरूप पीड़ाजनक है, दुःखदायी है। एक समय था कि इन दस दिनों में आया चढ़ावा किसी सामाजिक कार्य हेतु ही प्रयुक्त होता था। हर साँझ आरती के बाद संगीत की बैठक होती, स्तरीय नाटकों का मंचन होता, काव्यपाठ होता, बच्चों के लिए मनोरंजन युक्त परंतु शिक्षाप्रद प्रतियोगिताएँ होती, गृहणियों को अपना पाककला बताने का अवसर मिलता, वृद्धों को सबके

साथ मिलने-जुलने का, बतियाने का सुख मिलता परंतु आज व्यावसायिकता का इतना बोलबाला है कि गणेशोत्सव संस्थाओं के लिए अपने वैभव प्रदर्शन के प्रतीक होकर रह गए हैं। समय के साथ हमारी धार्मिक भावनाएँ प्रबल नहीं हुई, हमारी आस्थाएँ सबल नहीं हुई अपितु हमारे अंधविश्वास बढ़ गए हैं और बढ़ गई है आडंबर की भावना। भौतिक तथा बौद्धिक रूप से हम जितने सशक्त हो रहे हैं उतने ही मानसिक तथा भावनात्मक रूप से निर्बल। नैतिकता की तो बात ही कैसे करें सारा मामला तर्क पर अटका हुआ है। हम इतने प्रदर्शन प्रेमी तथा अंधानुगामी हो गए हैं कि अपना विवेक खो बैठे हैं। जीवन इतना व्यक्तिकेंद्रित हो गया है कि हमारे लिए अपने उत्सव-पर्वों की परिभाषा ही बदल गई है। सामाजिक सरोकार हमसे छूटता चला जा रहा है। पिछले दिनों 15 अगस्त को लालकिले की प्राचीर से राष्ट्र को संबोधित करते हुए प्रधानमंत्री श्री नरेंद्र मोदी ने राष्ट्र निर्माण में हर व्यक्ति की भूमिका को महत्वपूर्ण बताते हुए इस बात पर जोर दिया था कि हमें 'मुझे क्या, मेरा क्या' की मानसिकता से ऊपर उठना होगा। यह बात हर क्षेत्र में लागू होती है। शहरों में गणेश विसर्जन का दृश्य एक जुगुप्सा पैदा करता है। प्लेस्टर ऑफ पेरिस की बनी हुई गणपति की विशालकाय मूर्तियाँ डूबने का नाम नहीं लेती। उन्हें कभी पानी में तैरता छोड़ दिया जाता है तो कभी अंततः थक-हार कर पाँवों से धकेल दिया जाता है। विसर्जन के नाम पर नदी-समुद्र के किनारे जो गंदगी छोड़ी जाती है, भूमि, जल, वायु तथा ध्वनि प्रदूषण फैलाया जाता है उसका कोई हिसाब नहीं है। वर्ना हमारे यहाँ श्रद्धा की यह पराकाष्ठा रही है कि हम भगवान को चढ़ाए जाने वाले फूल भी कभी सूँघते नहीं हैं और चढ़ाए गए फूलों को निर्माल्य कह कर उन्हें अलग इकट्ठा किया जाता है तथा समय-समय पर बहते पानी में नमस्कार की मुद्रा में प्रवाहित कर दिया जाता है।

हम चाहें तो गणेशोत्सव को आसानी से एक पवित्र धार्मिक-सामाजिक अनुष्ठान का स्वरूप दे सकते हैं। यह कोई असंभव प्रक्रिया भी नहीं है। सभी सार्वजनिक स्थलों पर मिट्टी से बनी छोटी मूर्ति प्रतिष्ठित की जाए जो 'इको फ्रेंडली' हो, इसे विसर्जित किया जाए। सजावट हेतु बनी बड़ी मूर्ति को अगले वर्ष हेतु सुरक्षित रखा जा सकता है। इन दिनों मूर्ति में आया एक ओर परिवर्तन जो सर्वथा अग्राह्य-असह्य होता है वह है गणेश जी की मूर्ति में किसी राजनेता, अभिनेता या क्रिकेट खिलाड़ी की छवि को प्रतिबिंबित करना (भारत में इन तीन जातियों के लोग ही लोकप्रियता के नए-नए मापदंड बनाते हैं)। इसी प्रकार झाँकी में अपने गौरवशाली

इतिहास के दृश्य की झलक दिखने की बजाए आधुनिकता के नाम पर किसी अरुचिकर घटना को प्रदर्शित करना हमारे जैसे लोगों को स्वीकार नहीं होता। नवीनता के नाम पर तथा रेकार्ड बनाने के चक्कर में खाद्य पदार्थों तथा फलों की विशालकाय मूर्तियाँ बनाने से तो कहीं बेहतर हैं कि यह सामग्री अनाथालयों-विधवाश्रमों-वृद्धाश्रमों में वितरित की जाए परंतु जिस देश में अपने प्रिय अभिनेता राजनीकांत के जन्मदिवस पर उसके पोस्टरों को दूध से धोने की मानसिकता हो वहाँ लोगों का ध्यान एसी फिजूलखर्ची से किसी सकारात्मकता की ओर जाएगा यह विचार भी हास्यास्पद लग सकता है।

2020 का यह गणेशोत्सव कोरोना के राष्ट्रव्यापी संक्रमण के कारण अत्यधिक सावधानी से मनाए जाने की आवश्यकता है। एक वर्ग के धार्मिक उन्माद से कोरोना जिस द्रुत गति से देश भर में फैला है उससे हममें से कोई भी अनभिज्ञ नहीं है। अब संज्ञान लेने की हमारी बारी है। इस गणेशोत्सव को हम अपने परिवार तक ही सीमित रखें और युवा पीढ़ी को गणेशोत्सव की मूल भावना से अवगत कराते हुए उसे समाज तथा राष्ट्र के प्रति सजग करने का महत् उत्तरदायित्व निभाएँ क्योंकि अभी भी बहुत देर नहीं हुई है, बहुत कुछ बदलने के बावजूद अभी भी हमारे हाथों में सांस्कृतिक धरोहर के नाम पर ये उत्सव हैं जिनकी पवित्रता-गरिमा को हमें पुनर्स्थापित करके अगली पीढ़ी को सौंपना होगा तभी हम सच्चे अर्थों में पिछली पीढ़ी ने हमें दिए हुए इस स्वतंत्रता के उपहार से कुछ अंशों में ही सही उन्नत हो पाएंगे अन्यथा आने वाली पीढ़ियों के पास त्यौहारों के नाम पर रह जाएंगे बर्थडे, वेलेंटाइन डे, क्रिसमस और न्यू ईयर इव और साल गुजर जाएगा अपने मोबाइल की मेमरी में मदर्स डे, फादर्स डे, मातृभाषा दिवस की याद दिलाने में। यह हमारा नैतिक, वैयक्तिक तथा सामूहिक उत्तरदायित्व है कि हम युवा पीढ़ी को यह कन्विन्स करवाएँ कि माता पिता या कि मातृभाषा किसी एक दिवस के अंतर्गत नहीं आते हैं ये हमारे जीवन के आवश्यक-अपरिहार्य भाग हैं। इनसे हमारी पहचान है, ये हमारी अस्मिता हैं, हमारे गौरव हैं, हमारे व्यक्तित्व के अविभाज्य अंग हैं। कोरोना ने जहाँ हमें बहुतसे सबक सिखाएँ हैं वहाँ त्यौहारों को उनकी गरिमा बनाए रखते हुए सादगी से किस तरह मनाया जाना चाहिए यह भी सीखना होगा और इसका आरंभ हमें 'गणपति बप्पा मोरिया' के उदघोष से ही करना है क्योंकि उत्सवों की लंबी श्रृंखला का अभी तो शुभारंभ ही हुआ है।



लेखिका, एम ए (अंग्रेजी साहित्य) हैं। उन्हें हिंदी, मराठी, गुजराती, उर्दू एवं अंग्रेजी भाषा का ज्ञान है। आपकी कई पुस्तकें प्रकाशित हैं तथा उन्हें कई पुरस्कार प्राप्त हैं। वे साहित्य परिक्रमा (त्रैमासिक) की पूर्व संपादक हैं। साथ ही वे हिंदी सालगकर समिति, रेल एवं स्पोर्ट मंत्रालय, की सदस्य रह चुकी हैं।

Kumud Bala

1 (A)	2 (B)	3 (A)	4 (A)	5 (A)	6 (B)	7 (D)	8 (B)	9 (B)	10 (A)
11 (B)	12 (B)	13 (A)	14 (B)	15 (A)	16 (B)	17 (B)	18 (A)	19 (B)	20 (A)
21 (B)	22 (A)	23 (A)	24 (B)	25 (A)	26 (C)	27 (A)	28 (A)	29 (A)	30 (A)
31 (A)	32 (B)	33 (D)	34 (D)	35 (B)	36 (C)	37 (D)	38 (A)	39 (D)	40 (A)
41 (C)	42 (D)	43 (A)	44 (A)	45 (A)	-	-	-	-	-

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- Bertrand Russell

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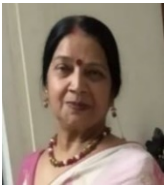
Prof. S.B. Dhar

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शिक्षक

श्रीमती सविता गुप्ता

शिक्षक शब्द भर देता है सम्मान भाव हृदय में ।
 प्रभु से भी अधिक पुजनीय है शिक्षक हमको ।
 जगत में प्रथम शिक्षक हमारी मां
 जो सभी विद्याओं का भंडार ।
 दुसरे शिक्षक हमारे पिता जो देते हमे व्यावहारिक ज्ञान ।
 तीसरे शिक्षक है गुरु जो किताबी ज्ञान ही नहीं देते जीवन जीने की कला सीखते है हमको ।
 बंद हो जाते है जब सब दरवाजे
 नया रास्ता दिखाते है शिक्षक ।
 जीवन की कठिन परिस्थितियों मै जीवन जीना सिखाते है शिक्षक ।
 सही व गलत के बीच अंतर बता सही मार्ग पर ले जाते है शिक्षक ।
 ज्ञान विज्ञान की दुनिया की सैर करा नई नई राहो पर चलना सिखाते है शिक्षक ।
 विश्व की समस्त कलाओं का ज्ञान दे हमारी सभ्यता व संस्कृति से परिचय करवाते है शिक्षक ।
 योग की शिक्षा देकर हमारे तन मन को स्वस्थ रखते है शिक्षक ।
 जीवन के रहस्यों से परिचित करा प्रभु से मिलाते है शिक्षक ।
 एक अंगड़े पत्थर को तराश सच्चा इंसान बनाते है शिक्षक ।
 शारीरिक मानसिक व अध्यात्मिक उन्नति करा हमारे व्यक्तित्व का निर्माण करते है शिक्षक ।
 शिक्षक दिवस पर संसार के सभी शिक्षको को मेरा शत शत नमन ।



Author is M.A., B. Ed. She was Center Manager, S. D Polytechnic, Ghaziabad, and Head Mistress New Era school Ghaziabad. She is proactive social reformer and participant in social, cultural and Yoga activities. She is Founder of Loiness Ekta Club, NOIDA.

Mail ID: goeltanvi@gmail.com

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*I have been impressed with the urgency of doing.
 Knowing is not enough; we must apply.
 Being willing is not enough; we must do."*

- Leonardo da Vinci

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STUDENTS' SECTION

Gyan Vigyan Sarita — शिक्षा is a monthly e-Bulletin. It was started, nearly five years ago, with a small effort to create an awareness among elite persons about their **Personal Social Responsibility (PSR)**. Elite persons possess potential to make a difference in society by virtue of their wisdom, position, powers and sphere of influence. Their leaning to complement such efforts would radiate message of walk-the-talk, which is perceived to be scarce among accomplished persons.

It gained momentum as we moved forward with inclusive participation of teachers, persons of accomplishment in different walks of life, eminent writers, poets through their creative writings for our e-Bulletin. These contributions contain their thoughts, experiences and vision.

Since beginning we are welcoming contributions with a firm belief that creativity is intrinsic to learning, and is an integral part of education be it formal or informal. It is unnatural to disjoint creativity with thought process inbuilt in education. Moreover, every child is unique in capabilities and so also it is true in respect of creativity. Therefore, it is extremely important to create opportunities for students to come out with their creativity in any form, be it writing story, poem or critical thought on any subject-matter of their concern or creative art viz. drawing, sketches, caricature, paintings etc. In no ways, it excludes performing arts in its various forms. But, in view of our limitations to include audio-visual performances of many of our students, who are best at it, we are not able to include them in the e-Bulletin. Thus, this e-Bulletin in its present form is confined to content in textual and image forms only. Hopefully we will be able to include performing art also in this e-Bulletin

We are observing that it has created a phenomenal enthusiasm among our students participating in this selfless initiative Interactive Online Mentoring Sessions (IOMS) driven with PSR. Most of these students come from that section of society which is deprived on one or the other account. It has also catalyzed families of persons associated with this Gyan Vigyan Sarita initiative directly or indirectly. This makes our e-Bulletin centric to creative contributions of children and students together with wisdom of elders.

Our objective in this bulletin is *not the least to exhibit world-class talent among children*, but definitely we recognize that - **(a)** *creativity is an integral part of learning in IOMS*, **(b)** *one is never late to come out with one's creativity, be it in any form*, **(c)** *given an opportunity these students would emerge as great creator, artists, laureates and scientist*, **(d)** *all great creators Leonardo da Vinci, Shakespeare, Tagore, Ustad Ala Uddin Khan also had made a humble beginning*, **(e)** *scarcity catalyzes creative potential of every child, when he receive care, concern, guidance and gentle hand-holding, in case of necessity. Otherwise, looking upon them sympathetically as subject of philanthropy, like slow poison, is enough to quench fire in them and convert into ever-lasting dependents like parasites.*

Pursuit of human race in science and mathematics, as a mother of all sciences. It has its beginning in observations and inquisitiveness of human race to discover nature, happenings and their causes. Thus science and mathematics as it grew, it became more specialized and misconstrued as disjoint to creative art. As a result, educationists were pursuing it in STEM model emphasizing upon learning of *Science, Technology, Engineering and Mathematics*. This has led civilizations in losing human perspective in education, excellence into objectivity, and enter into a rat race among students. It more rampant among parents, to raise Intelligence Quotient (IQ) of their children. In recent past, educational psychologists, all across, have come up with various ways and models for integrating creative art into education and emphasizing upon its attributes in different forms and names.

While building IOMS, our premise and realization of need of integration of creativity into this model had started taking shape. We take mathematics and physics not disjunctive to creativity but as a medium to sharpen creativity among students in a more logical and scientific manner and correlating them with nature around for coexistence. Therefore, we accept creative contributions of students in their own form, and advise them on its moderation to the possible extent only. *We are sure that these students would rise above with the natural buoyancy to be at the best of their potential with pleasure of their own ingenuity deployed for the larger good; it would be without imitating any celebrity, an icon, or waiting for the world to recognize them.*

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*Opportunities seldom knock the door,
But, desperate efforts with perseverance unfold opportunities, in waiting.*

Understanding of Concepts Through Interactive Online Mentoring

In an effort to groom concepts among students through **Interactive Online Mentoring Sessions (IOMS)**, a new proposition was started in June 2020. In this proposition every month One topic, out of the portion covered in IOMS, will be specified to students to develop their understanding on the topic in the form of a report. Best, of the submission would be discussed with the student, making the submission, to bridge conceptual gaps, if any, for moderation. Such conceptual-gaps in a student, at stage of class 10th, are very much obvious, especially when students are groomed and required to elaborate concepts at level above their academic curriculum. The submission, **within the constraints of students**, are produced here.

In third month Four Submissions were made among about 30 students of Class 10th out of three schools. This month topic was Huygens **Wave Theory and its Application in Reflection and Refraction of Waves**. Taking forward the encouraging response of the initiative has been extended to students of class 9th and after illustration one student from Ramakrishna Mission School Sitanagram was advised submission on **Surface Area and Volume of a Sphere from First Principle**, and another student from Dinjan Assam was advised submission on **Trigonometric Ration in Four Quadrants**. This initiative is planned for awider participation of students with different topic each month.

Experience of student(s), who developed the elaboration of concepts, is worth knowing, for we as elite persons, and for students to emulate active participation in such selfless initiatives, where emphasis is on grooming of concepts and their application in problem solving. We believe that perseverance in such initiative to grooms competence among students, who are otherwise disconnected with us, will ignite a spark in them to avail the best of the opportunity.

Editorial Board

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Understanding Huygens Wave Theory: Reflection and Refraction of Waves

Bavitha. G


HUYGENS WAVE THEORY

- * The Huygens-Fresnel principle states that every point on a wavefront is a source of wavelets.
- * These wavelets spread out in the forward direction, at the same speed as the source wave.
- * The new wavefront is a line tangent to all of the wavelets.
- * When applied to all the propagation of light waves this principle states that: Every point on a wavefront may be considered a source of secondary spherical wavelets which spread out in the forward direction at the speed of light.
- * The new wavefront is the tangential surface to all of these secondary wavelets.
- * According to Huygens principle, a plane light wave propagates through free space at the speed of light.
- * The light rays associated with this wavefront propagate in straight-lines.
- * It is also fairly straight forward. It comprises of energy that contains requirement of mechanical wave.

Inspiration to understand Huygens Wave Theory:

- * Take a tub and fill it with water.
- * Now take a stone and throw it in the tub from a certain height.

You will observe several circles around the stone. These circles are called waves. Stone is the source of waves.



Q. What is premise in Huygens Wave Theory?

1. Waves are initiated by source and they travel in all direction such that on a plane it takes circular shape and in space it takes spherical shape.
2. Velocity wave remains same in same medium i.e. velocity of wave would change when medium changes.
3. Source is at the centre of circle & sphere and wave travel radially.
4. Frequency of wave remains unchanged all along.
5. Circle & sphere upto where wave has travelled at any instant is called wavefront.
6. Every particle on the wavefront acts like secondary source of the mother source (i.e. primary source). Waves produced by secondary wavelets have velocity and frequency as that of primary source.

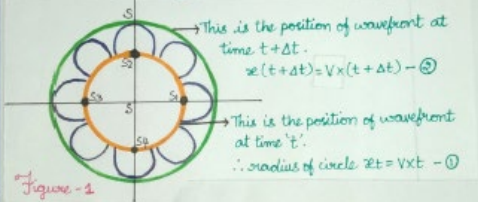


Figure - 1

* S_1, S_2, S_3, S_4 are the secondary sources of wave they property (wavelength and speed) same as that of primary source. In we can say S_1, S_2, S_3, S_4 are clones of S.

You will find wave generated by secondary sources in the time Δt would be $\Delta x = v \Delta t$ — (1) Every particle on wavefront at time t becomes same of wave making a common envelop which will be wavefront at $t + \Delta t = r + \Delta x$

We get equation (2) from equation (1), (2) and (3)

$R = t + \Delta t = v(t + \Delta t)$ — (2)

7. Envelop of wavefront created by secondary sources of wave acts like new position of wavefront and then it continues to travel.

8. Wave travels in all possible directions away from the source.

9. Direction of propagation of wave is always perpendicular to the wave front.

Wavefront is circular on plane and spherical in space. Rays/Waves travel radially from source. Since rays are diverging they can't be parallel.

Figure-2

Still we assumed while proving laws of reflection states that incident rays are parallel i.e. angle between them is zero.

Figure-3

Q. How do the angle between two parallel rays become zero?

a. In above figure ray length of one $AB = \lambda$
radius of the arc $OA = OB = r$
angle between rays OA and $OB = \theta = \frac{AB}{\text{radius}} = \frac{\lambda}{r}$

$\lambda \ll r \Rightarrow \frac{\lambda}{r} \rightarrow 0$

\therefore When angle between OA & $OB \rightarrow 0$.

① The rays are coincident. ② The rays are parallel.

Since A & B are not coincident therefore possibility ① is not there. possibility ② is true.

Therefore ray coming from a point source at a large distance, as per Huygens Wave Theory are treated as parallel.

PRINCIPLE OF REFLECTION

- * Take a thin mirror.
- * Make two parallel rays AB & CD incident on mirror at B & D .
- * Since mirror is thin the incident rays AB & CD get reflected along BE & DF .

Figure-4

Figure-5

- * BP is wavefront of incident rays. $\therefore BP \perp AB$ and CD rays as per Huygens Wave Theory.
- * Likewise PD is wavefront of reflected rays and as per Huygens Wave Theory $PD \perp BE$ and DF .
- * Incident and reflected are in same medium. The rays have velocity v .

- * Ray AB , after incidence at B gets reflected along BE and ray CD after reflection at D gets reflected along DE .
- * Say at two when ray AB reaches mirror at B , BP is the wavefront of incident ray as per H.W.T.
- * Likewise when ray CD at time t' reaches mirror at D then DP is wavefront of reflected ray as per H.W.T.
- * Further as per H.W.T. velocity of rays/waves is unchanged when medium is same. Therefore velocity of incident ray and reflected ray would remain v .
- * Therefore, path of incident ray $PD = vt$ - ① and path of reflected ray $BA = vt$ - ②.
- \therefore From ① & ② $PD = BA$ - ③. \therefore RHS and LHS are equal.
- * Now $\triangle BPD$ and $\triangle BDA$ are congruent by R.H.S Theorem.
- $PD = BA$
- $BD = BD$ (common side)
- $\angle BPD = \angle BDA$
- $\angle PBD = \angle ADB = \alpha$ - ④
- $\angle PDB = \angle ABD = 90^\circ - \alpha$ - ⑤

Figure-6

- * Draw normal BN and DN at B & D point of incidence on mirror, these normals are \perp to surface of mirror.
- * Viewing figure-6 with greater details, in length we already proved $\angle NBD = 90^\circ \therefore \angle NBP = \angle NBD - \angle PBD = 90^\circ - \alpha$ - ⑥
- Like $\angle ABD = 90^\circ$, $\angle ABN = \angle ABD - \angle NBP = 90^\circ - (90^\circ - \alpha)$ from - ⑥

$= \alpha$ - ⑦

$\angle ABN$ is called angle of incidence.

Further $\angle NBA = \angle NBD - \angle DBD = 90^\circ - (90^\circ - \alpha) = \alpha$ - ⑧

$\angle NBA$ is called angle of reflection

$\angle ABN = \angle NBA$ from equation ⑦ & ⑧.

* Therefore it is proved that angle of incidence is equal to angle of reflection.

LAWS OF REFLECTION :

- * Incident ray and reflected ray are at same point on a mirror.
- * Normal to the plane of mirror at the point of incidence on mirror along with incident ray and reflected ray are in same plane. All these three lines are in same plane.
- * Angle formed by incident ray with the normal is called angle of incidence (i).
- Likewise angle formed by reflected ray with the normal is called angle of reflection (r).
- Third law of reflection says $i = r$.
- * These law of reflection are same for sound wave and light waves on (a) plane mirror, as well as (b) spherical mirror.

REFRACTION:

- * Let V_a is speed of light in air.
- * BE is wavefront of incident light.
- * Let V_g is speed of light in glass. We assume $V_g = V_a$.
- * BE is wavefront of incident rays AB & CD .
- * The wavefront is \perp to direction of propagation.
- * NN' are normal to interface of glass & air.
- * The ray is incident at B start travelling with speed V_g in glass and as per H.W.T. the point B on the wavefront will act like a source.
- * But ray CD will enter into the glass at point D , soon after point D will act as a source and wavefront at the time will be tangent to circle of radius $V_g t$.

Figure - 7

* Thus new position of wavefront is after time 't' is ED.

* When ray A reaches B it encounters change of medium and there speed of wave beyond B is v_g .

* But ray CE continues to travel with v_a speed in air along ED.

* Time taken by ray CE to travel ED: $t = ED/v_a$ & $ED = v_a \times t$

* Since wavefront is at time 't' when reaches D will take a position DF such that $BF = v_g \times t$.

* $\angle ABN = \alpha$ This is the angle made by incident ray with normal α at the point of incidence B. Using the same convention as in reflection $\alpha = i$ angle of incidence.

* β = angle of refraction.

* When a ray travels from lighter to denser medium it bends towards normal.

* When a ray travels from denser to rarer medium it bends away from normal.

* $ED = v_a \times t$ — (1) $BF = v_g \times t$ — (2)

In $\triangle BED$, $\sin \alpha = \frac{ED}{BD} = \frac{v_a \times t}{BD}$ — (3)

In $\triangle BFD$, $\sin \beta = \frac{BF}{BD} = \frac{v_g \times t}{BD}$ — (4)

* Comparing notation with that used in laws of refraction:

- $\alpha \rightarrow i$ i.e. angle of incidence. i.e. angle formed by incident ray with the normal at the point of incidence B.
- $\beta \rightarrow r$ i.e. angle of refraction i.e. angle formed by refracted ray with the normal at a point of refraction B.

$$\frac{\sin \alpha}{\sin \beta} = \frac{\sin i}{\sin r} = \frac{v_a}{v_g}$$

* This relationship is defined as Snell's law where refraction of glass with respect to air is

$$\mu = \frac{\sin i}{\sin r} = \frac{v_a}{v_g}$$

* Light and sound waves have a property of reverse traceability.

This is one direction. This is another direction of ray. This is the reverse direction.

* When we reverse direction reflected ray becomes path of incident ray likewise incident ray become path of reflected ray.

Figure - 8

v_a air, v_g glass

$\frac{v_a}{v_g} \mu_g = \frac{v_a}{v_g} = \frac{\sin i}{\sin r}$

When direction is reversed, $\mu_a = \frac{v_g}{v_a} = \frac{\sin r}{\sin i}$ $\mu_g = \frac{1}{\mu_a}$

$\frac{\sin i}{\sin r} \leftarrow \mu_g = \frac{1}{\mu_a} \rightarrow \frac{\sin r}{\sin i}$

What is critical angle & Total Internal Reflection?

a. Refraction phenomenon fails at some angle. For this, ray has to travel from denser medium to rarer medium. That is what happens in phenomenon called mirage.

Let at $i = i_c$ (critical angle)

$$\mu_a = \frac{v_g}{v_a} = \frac{\sin i_c}{\sin 90^\circ} = 1$$

$$\mu_a = \frac{\sin i_c}{\sin 90^\circ} = \sin i_c$$

* In figure - 9 for $i > i_c$. It follows law of reflection. This is called total internal reflection. $i_c = \sin^{-1}(\mu_a)$

Figure - 9

Increase of change of density from road surface to above is gradually angle incidence where it easily travels is large where $i > i_c$.

DIFFERENCES BETWEEN REFLECTION & REFRACTION :

Reflection	Refraction
* Light bounces after reflection in same medium.	* Light changes medium.
* Same medium of propagation of light does not change.	* Velocity of light changes with the medium.
* Velocity of light after refraction also does not change.	* This change of velocity is responsible for refraction.
* Angle of incidence is equal to angle of refraction. $i = r$.	* Angle of incidence is not equal to angle of refraction. $i \neq r$.

A TRIBUTE TO MY TEACHERS

Bavitha. G

A teacher helps students to acquire knowledge, competence and virtues. Teacher is one who inspires, guides, enlightens and motivates. Teacher teaches us about the objects and processes of the external world. A teacher's purpose is not to create students in his own image, but to develop students who can create their own image. A good teacher is like a candle it consumes itself to lighten up the way for others.

In guru-shishya parampara tradition, the guru is a teacher who guides the shishya's life or a spiritual mentor who leads the shishya from blindness or ignorance to bliss, wisdom and enlightenment. Guru teaches the techniques of exploring reality of our inner being i.e. self by which our life changes. The guru leads his shishya towards the ultimate goal without any attractions for fame or gain. He shows the path of god and watches the progress of his disciple, guiding him along that path. He inspires confidence, devotion, discipline, deep understanding and illumination through love. Here the main aim is to impart the knowledge of Indian tradition which cannot otherwise be gained by merely reading books.

A teacher has greater knowledge than a student, a mentor has a greater perspective. Mentors say "Create your own path and I'll be there when you need me". Mentors suggest principles out of years of his experience, they understand that life is more grey than most appreciate. Question the

mentor and you'll be précised and if they don't have the answer they'll surely work around dig it out. Mentor acts as a positive role model, motivates others by setting a good example.

These are the differences between a teacher, a guru and a mentor. Life and Time are the best teachers. Life teaches us to make good use of time and Time teaches us the value of life. Teachers teach lessons which are academically useful for us. The hard situations which we face, different kinds of mentalities of people whom we meet teach us very good and important lessons which help us to lead our life are left untouched. There are some teachers who tell us what is right and wrong, guide us to go in a right path, motivate us to achieve our goals.

Coming to my life, there are some teachers by whom I am making myself better and better daily, by whom I inspired my hopes, ignited my imagination, instilled a love of learning, by whom I am able to take right decisions in right times. So many things in fact everything I learnt, I am still learning and I will learn from my teachers. Teachers are one of the special and valuable gifts from god. I am really thankful to god for giving me such wonderful people as our teachers who always supported me, encouraged me. I think teachers are otherwise known as experienced students that's why they are able to make their children's life i.e. students life such a beautiful world in which we can explore with our creativity. I thank all my teachers, who are more of mentor and Guru to me, to have taught me the lessons beyond my expectations and knowledge. You taught me how to fake a smile in hard times, how to fight with situations, you taught me not to over love the ones who don't value my presence and most importantly you helped me in figuring out the real people behind those fake marks. You make me mature enough to let things go which hurt me the most.



A contribution for the teachers who are one of the most important persons of our life shouldn't be ignored at all. So in India we all celebrate **Dr.Sarvepalli Radhakrishnan Sir's birth anniversary as TEACHERS DAY i.e. on September 5th. On this occasion I wish all teachers a very Happy Teachers Day.**



The Student, making submission, authoring an article and drawing studies in Class Xth at Ramakrishna Mission School, Sitanagram, A.P. She is a regular participant in IOMS. E-Mail: bavitha312@gmail.com.

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A hundred times every day

I remind myself that my inner and outer life

Are based on the labors of other men, living and dead,

And that I must exert myself in order to give in the same measure

As I have received and am still receiving.

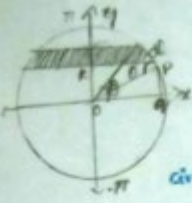
Albert Einstein

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Understanding Formulae of Surface Area and Volume of Sphere

Naga Divya

UNDERSTANDING TOTAL SURFACE AREA OF SPHERE



OP = radius of Sphere = r
 OPR is a rectangle
 PR = OQ
 In $\triangle OPQ$: $OQ = r \cos \theta$
 $OR = RP = r \sin \theta$
 Circumference of Circle of radius RP = $2\pi \times RP$
 $= 2\pi r \cos \theta$
 $\Delta A = (2\pi r \cos \theta) \times r \sin \theta$
 $\Delta A = 2\pi r^2 \sin \theta \cos \theta$ — (1)


opposite Δ is replaced with d.

Little Calculus
 $\frac{d}{d\theta} \sin \theta = \cos \theta$
 $d \sin \theta = \cos \theta d\theta$
 on Integration of this equation
 $\int d \sin \theta = \int \cos \theta d\theta$
 Since integration (∫) and differentiation (d) are reverse mathematical operation.
 $\therefore \sin \theta = \int \cos \theta d\theta$
 $\sin \theta = \int \cos \theta d\theta$ — (2)

using (1)
 $dA = 2\pi r^2 \sin \theta \cos \theta d\theta$
 $A = 2\pi r^2 \int_{\pi/2}^0 \sin \theta \cos \theta d\theta$
 $A = 2\pi r^2 \left(\sin \theta \right)_{\pi/2}^0$
 $A = 2\pi r^2 (\sin 0 - \sin \pi/2)$
 $A = 2\pi r^2 (0 - 1)$
 $A = 2\pi r^2 (-1)$
 $A = -2\pi r^2$
 $A = 4\pi r^2$

Since $\sin(-\theta) = -\sin \theta$
 $\therefore \sin(-\pi/2) = -\sin \pi/2$

UNDERSTANDING VOLUME OF SPHERE



OP = r = radius of Sphere
 In $\triangle OPR$
 $PR = OQ$
 $OQ = RP = r \cos \theta$
 Circumference of Circle of radius RP = $2\pi \times RP$
 $= 2\pi r \cos \theta$
 Area of disc dA = $\pi (RP)^2$
 $= \pi (r \cos \theta)^2$
 $= \pi r^2 \cos^2 \theta$

QD length = r sin θ
 as $\Delta \theta \rightarrow 0$ $r \sin \theta = QD$
 further when $\Delta \theta \rightarrow 0$
 OP is tangential at P then $\angle POQ = 90^\circ$ since
 OP is radius,
 OR = RP cos θ
 $\Delta h = (r \sin \theta) \cos \theta$
 $\Delta h = r \sin \theta \cos \theta$

Volume of disc dV = $A \times \Delta h = (\pi r^2 \cos^2 \theta) (r \sin \theta \cos \theta) \Delta \theta$
 $dV = \pi r^3 \cos^3 \theta \sin \theta d\theta$
 $\int dV = \pi r^3 \int_{\pi/2}^0 \cos^3 \theta \sin \theta d\theta$
 $= \pi r^3 \left[-\frac{\cos^4 \theta}{4} \right]_{\pi/2}^0$
 $= \pi r^3 \left(-\frac{\cos^4 0}{4} + \frac{\cos^4 \pi/2}{4} \right)$
 $= \pi r^3 \left(-\frac{1}{4} + \frac{0}{4} \right)$
 $= -\frac{\pi r^3}{4}$
 $V = \frac{4\pi r^3}{3}$

Say $\sin \theta = t$ differentiate with respect to t
 $\frac{d}{dt} (\sin \theta) = \frac{dt}{d\theta}$
 $\cos \theta = \frac{dt}{d\theta}$
 $d\theta = \frac{dt}{\cos \theta}$

$\frac{d}{dx} (x^n) = nx^{n-1}$
 $\int x^n = \frac{x^{n+1}}{n+1}$



She is a student of class 9th at Ramakrishna Mission School, Sitanagram, A.OP. She is a regular participant in IOMS.

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Gentleness,

Self-sacrifice

And

Generosity

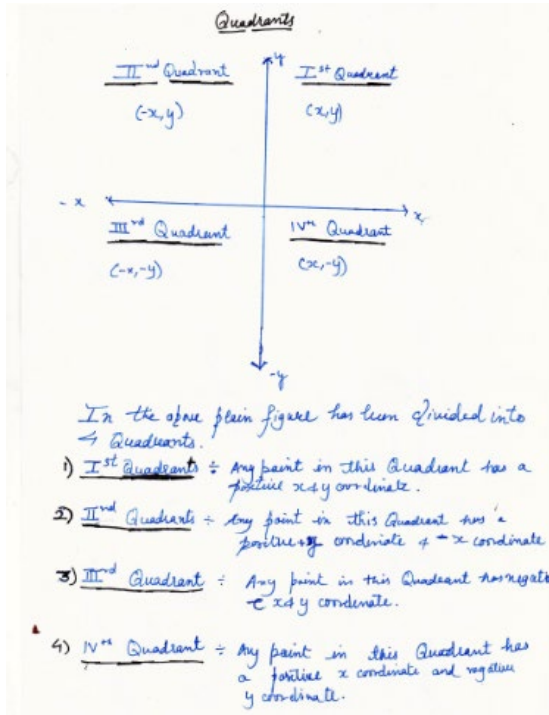
Are the exclusive possession of
 No one race or religion.

Mohandas (Mahatma) Gandhi

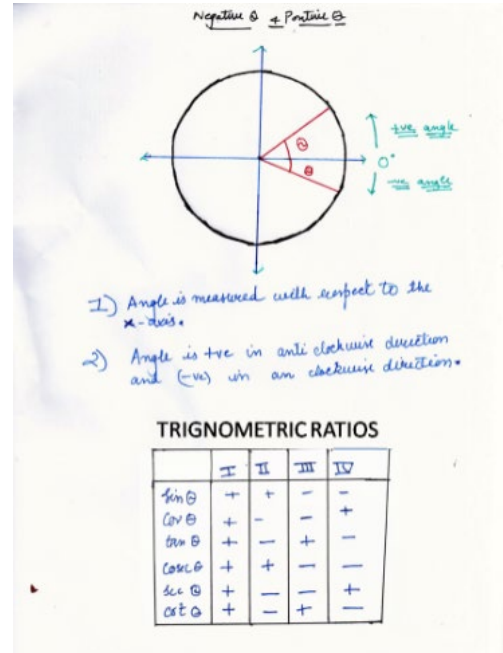
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Understanding Trigonometric Ratios in Four Quadrants

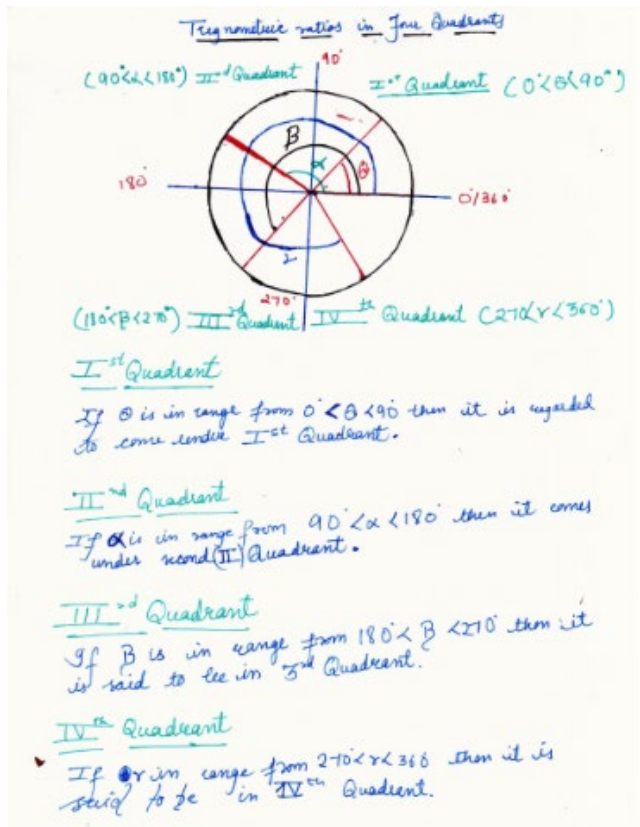
Devansh Sharma



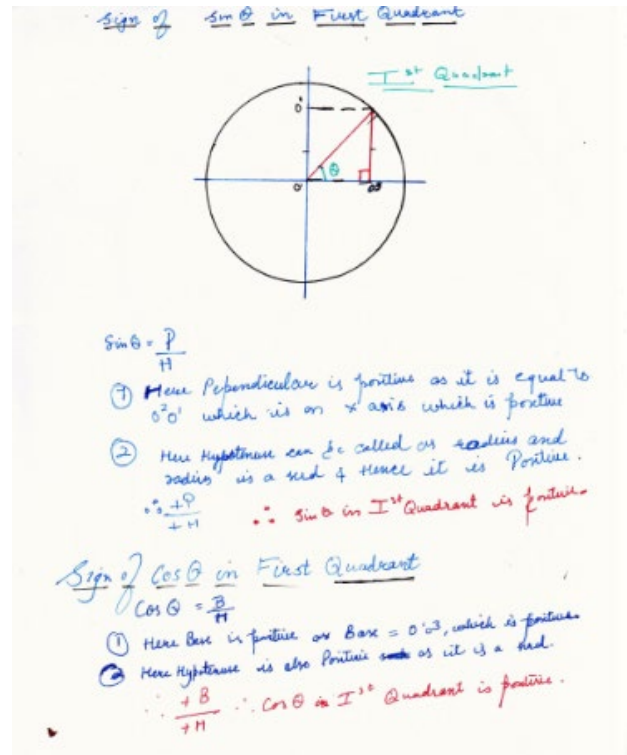
Sheet 1



Sheet 2



Sheet 3



Sheet 4

Sign of $\tan \theta$ in First Quadrant

$$\tan \theta = \frac{P}{B}$$

Here P is perpendicular & is equal to $O'D$ which is on x axis & hence positive.

$$\frac{+P}{+B} \therefore \tan \theta \text{ in I}^{st} \text{ Quadrant is also positive.}$$

Sign of $\csc \theta$ in First Quadrant

$$\csc \theta = \frac{1}{\sin \theta} = \frac{H}{P}$$

Here both are positive as proved before

$$\frac{+H}{+P} \therefore \csc \theta \text{ is also positive.}$$

Sign of $\sec \theta$ in First Quadrant

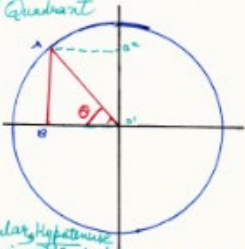
$$\sec \theta = \frac{1}{\cos \theta} = \frac{H}{B}$$

Here also as proved before Hypotenuse & Base are positive

$$\therefore \sec \theta \text{ is positive in I}^{st} \text{ Quadrant.}$$

Sheet 5

Value of $\sin \theta$ in Second Quadrant



Sign of Perpendicular, Hypotenuse & Base in IInd Quadrant

- Here, AD is perpendicular & is on x axis \therefore AD is positive in second quadrant $\therefore P$ is positive
- AO is Hypotenuse & is positive as it is radius & radius is a +ve. $\therefore H$ is positive
- Now OD is Base & is on negative x axis & hence it is negative $\therefore B$ is negative

$$\sin \theta = \frac{P}{H}$$

Here $\frac{+P}{+H} \therefore \sin \theta$ is positive

Sheet 7

Sign of $\cot \theta$ in First Quadrant

$$\cot \theta = \frac{1}{\tan \theta} = \frac{B}{P}$$

We have already proved before that Base & Perpendicular is positive in Ist Quadrant.

$$\therefore \cot \theta \text{ is positive in I}^{st} \text{ Quadrant.}$$

Sheet 6

Value of $\cos \theta$ in IInd Quadrant

$$\cos \theta = \frac{B}{H}$$

Here $\frac{-B}{+H}$ Hence $\cos \theta$ in II Quadrant is negative.

Value of $\tan \theta$ in IInd Quadrant

$$\tan \theta = \frac{P}{B}$$

Here $\frac{+P}{-B}$ Hence $\tan \theta$ is negative.

Value of $\csc \theta$ in IInd Quadrant

$$\csc \theta = \frac{H}{P}$$

Here $\frac{+H}{+P}$ Hence $\csc \theta$ is positive.

Value of $\sec \theta$ in IInd Quadrant

$$\sec \theta = \frac{H}{B}$$

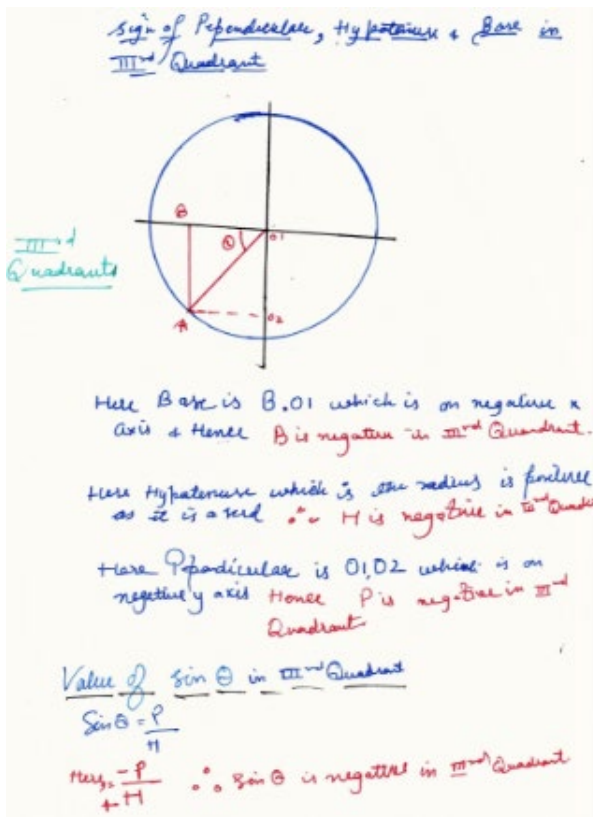
Here $\frac{+H}{-B}$ Hence $\sec \theta$ is negative.

Value of $\cot \theta$ in IInd Quadrant

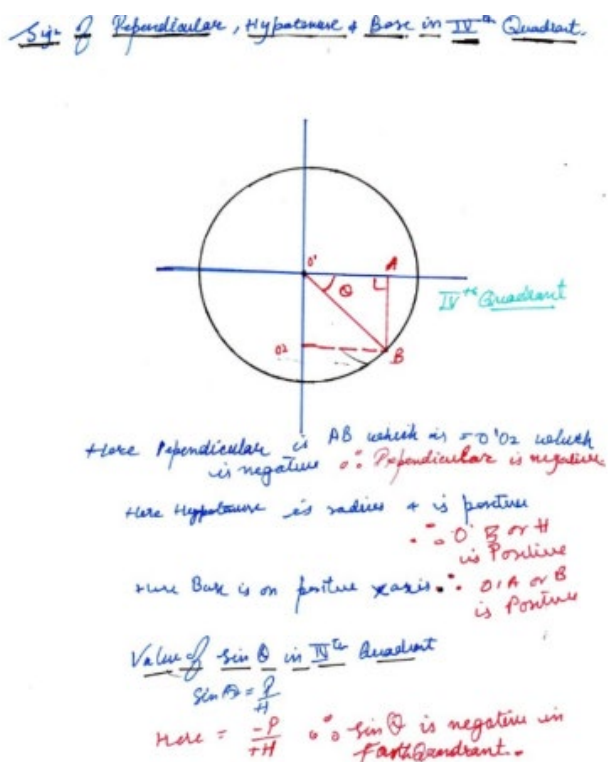
$$\cot \theta = \frac{B}{P}$$

Here $\frac{-B}{+P} \therefore \cot \theta$ is negative.

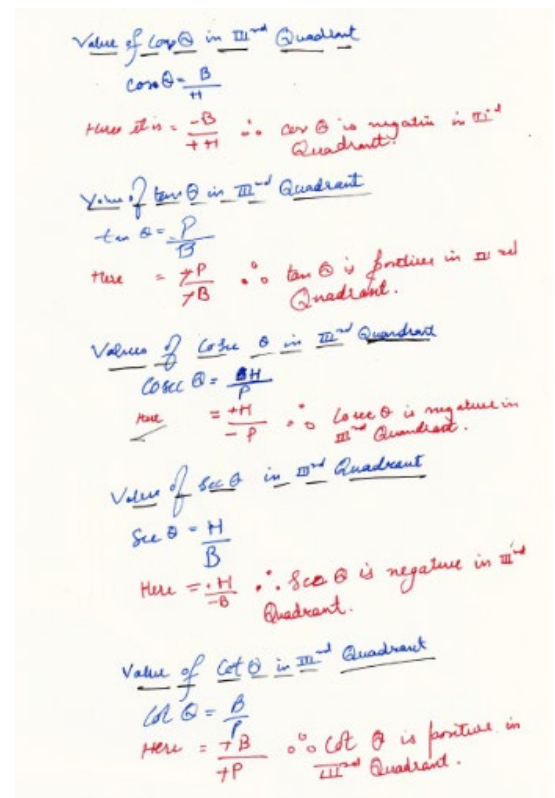
Sheet 8



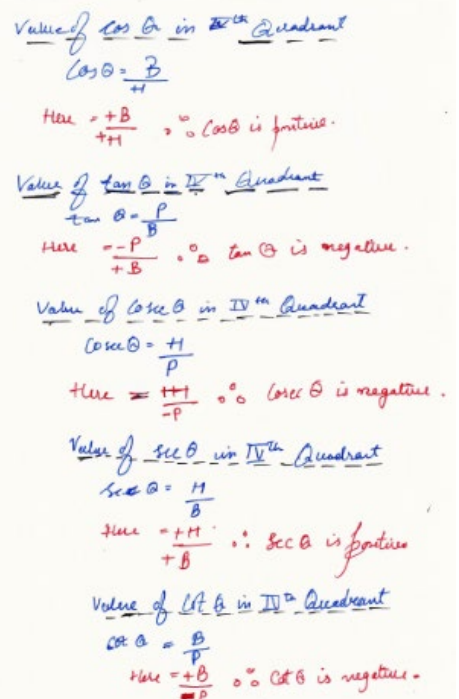
Sheet 9



Sheet 11



Sheet 10



Sheet 12

(He is a student of class Class IXth at Army Public School, Dinjan, Assam, He is regular participant of IOMS).

My Journey...

Rohit Chauhan

I take this opportunity to share my experience with a mentor since 2012 when I was studying in class 8th to present when I have entered in Final year of BE (CSE).

Then the mentor had returned from IIT Roorkee after doing Ph.D.. He had joined the institute for research after his retirement from professional career as a power engineer. Coming from a family with a very humble background, it was day dreaming to seek an admission in a professional degree college. My father is also had hardly had education and is working as a labour in industry. And my mother, who works as a domestic help, came to know about the mentor who was teaching students from poor families, free of charge. Then I was studying in class 8th, and it was nearing end of the academic session. My mother lost no time to escort me to the mentor. Both my mother and father continue to be source of inspiration to me.

The enquire about my family background and the Sir advised me to start attending his classes in Maths and Physics at a centre; it was **Samarth** initiative started by **Sarthak Prayash**, an NGO, based at Vasundhara, Ghaziabad.. Next day, I became a student of the Sir. He was teaching students of class 9th and 10th some concept of maths which was beyond my ability understand, and difficult to recall even today. Initially, I felt nervous to cope up with the class. It was quite natural for a student of class 8th who was poor in maths and science. Sir was conducting combined class of all students right from class 8th to 10th. Sir also explained basic concepts of lower classes with an advice that it was helpful to understand concepts at higher level. He always explained us that learning maths and science is like climbing a ladder, where each lower step in place is essential for a person wanting to rise higher steps. He advised that it will take some time for to understand this reality.

I tried to revise concepts. I being a shy kind of boy was never asking either questions or doubts. It took few months for me to be able understand a few of the concepts that sir was teaching.

The small room in which classes were held with more than fifteen students were there, had a suffocating had environment, with sir sweating profusely. Yet, he explained us concepts of maths and physics with very few articles that were available there. We students worked together to fill the wall with charts on various concepts. Some inspiring quotations were used as fillers. We all tiny students created pyramid to tie nylon rope to ceiling and take it's free end in different directions to understand three dimensional space, which was not easy for us to

understand on blackboard at that stage. These are all the sweet memories and a belief that lack of resources cannot stop learning.

There we learnt to revise learning of the day mentally, without the help of books notes, pen and paper. Initially, we considered it impossible, as we had never revised any subject without either books or notes. Now, I find that practice of mental revision has increased my capacity to visualize even those concepts which cannot be seen in our surrounding.

After, about 1-2/ years Sir started teaching us in his house. Though his residence was about 5 km away, all of us tried to reach his home and sit on floor in drawing-room, used his bath-room whenever necessary. After a few months, sir moved the class in common room of the Rajhans Apartment, Indrapuram, Bhaziabd here sir was living.

This created an opportunity to learn mathematics from Prof. Ramesh Chandra Sir, English from Shalini Mathur Madam, and general knowledge and essay writing from Khanna Sir. All them were very kind and did not expect anything from us, except we all study hard and feel free to ask our difficulties. Moreover, the teachers and other elderly persons used to arrange sweets for us on festivals and their birthdays.

While learning about our subject from these teachers, another most important thing that we learnt we learnt from them was to look beyond our limitations and how to reach out to other needy person in a selfless way and help him grow capacity to solve his or her own problem.

In January' 2016 when sir had to move to Noida, about 8 km away from Indrapuram, it had become difficult for him to come and take our classes. Yet, it continued for Two months. But, in March'2016 he started to take our classes on internet. There were many problems viz availability of computer, internet audio-visual accessories. Moreover, he did not have experience of online teaching. Meanwhile, Shailendra sir, who lives in US, also started teaching us advanced maths and physics in class 11th., on internet Further, Kumud madam started teaching us online Chemistry and Prof. Dhar Sir mathematics. Now, that it is more than four years, these teachers are regularly teaching students from distant places through Interactive Online Mentoring Sessions (IOMS), I am happy that more students who cannot afford coaching are getting benefit of their guidance. Sarthak Prayash, where this initiative started more than eight years ago had created a facility for IOMS at their library, and it facilitates my studies at the library. Shri Sameer Lal, from

Canada provided me a computer through Sir and Shri Vikram Sethi before migrating to US helped me with his stock of books on CSE.

I want to sum-up my pleasant experiences of my association with the mentors, to whom I remember with a gratitude as under-

1. If you have not been able to find your passion and aim, may be for genuine reasons, then figure it out as-much-as and as-early-as possible; and have some reason to do that; list them down.
2. Identify strong reasons to have the aim. Stronger is the reason to have that aim as much higher, more will help to organize self to achieve that aim as early as possible.
3. Imagine that you achieve your aim, then then what are the thing that will happen with you. It is helps in self-motivation and gain pleasure to do the things that are needed to achieve the aim.

4. Plan your day one day before, list out major tasks you have to do in the next day. It is essential to plan priorities and avoid wastage of time in unnecessary and useless things. This will help us in achieving progress at a faster rate and gain control over our actions.

There are many barriers or disappointments in between in everyone's life. Moreover, if we do not get any barrier then also there will be no pleasure in the journey. Occurrence of barriers and difficulties in our journey is an indicator that we are progressing and that we are creating a new version of ourselves, day after day....

A take this opportunity to express my sincere gratitude to my teachers and mentors and greet them on Teachers Day. I pray almighty for their good health so that lives of more students from unprivileged families are transformed under their selfless guidance with their sense of Personal Social Responsibility (PSR).



The author is connected to this initiative since beginning in 2012, He is pursuing B.Tech in Computer Science and Engineering, from R.D Engineering College, Ghaziabad, UP. He is among first batch of students in this initiative. His hobbies are solving coding problems and learning new technologies related to computer science.

e-Mail: chauhan9911910013@gmail.com

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Leha Saraki, is a student of Class 10th at Kendriya Vidyalaya, Tenga Valley, Arunachal



Nihal Baijnath is a student of class 9th at Kendriya Vidhyalaya, Dinhan Sassam. He is a regular participant in Interactive Online Mentoring Sessions (OMS)

IS INTERACTION IMPORTANT WHILE GAINING KNOWLEDGE?

Dikashma Shree Selvakumaran

In the olden days, teachers forced the students to remain completely silent during the class because they felt maintain silence was a crucial discipline when it comes to studies. Of course, maintaining silence is an important part but excessive silence can be an appalling thing. Silence during interaction in the process of gaining knowledge can cause brevity in the application of the knowledge in real life.

Now-a-days, teachers are more in to the interacting method of teaching which gives an opportunity for the students to think about what is taught and compare it with their daily life experiences which the students must have observed but were not clear about the reason behind it. With the help of the interaction they must get an answer. On the other hand, knowledge gained through interaction makes the student more confident, motivated, build an addiction to think and be curious. Interaction with the teachers or the educators makes students more attentive, brisk and can inculcate a great presence of mind in the young minds of today. Additionally, thinking minds never perceive any concept alike, each one has his own context, experiences and environment. This kind of diversity makes interacting students to start thinking more holistic manner.

The feeling of being languor of rote learning will vanish from the students as they are learning through a conceptual manner and it is scientifically proven that we tend to remember things better through interaction and

relating the new concepts with things we see and experience in our daily life.

Through this method of interaction, teacher frequently ask questions related to the topic and the students answer; students would neither be discouraged nor discourage anyone if they give a wrong answer perhaps they could get a chance to learn more and correct themselves. This way they gain a selfless feeling towards everyone which would make them as a good citizen.

CURIOSITY is an innate nature of a student which is flared in life by the teachers. All this has been made possible by the teachers or the educators who always guide and mentor the students whenever they need some help despite sacrificing their personal time to the students. The only profession which trains for all other professions is being a Teacher. Teachers are the super heroes who are not recognized as much as any other person of a different profession is. For teachers teaching has never been their duty; it's their passion to make the young minds of tomorrow to be a better and thoughtful wise persons and to face the fast growing challenges in the world.

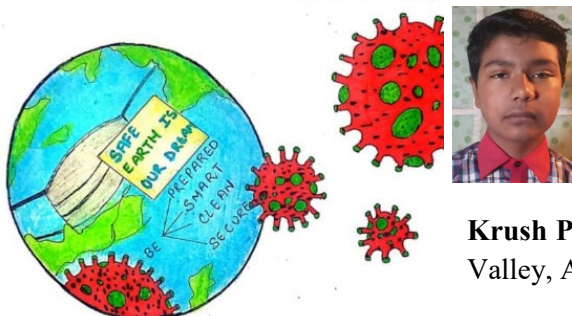
Finally, *"A TEACHER OPENS MINDS, INSPIRES DREAMS, BUILDS CONFIDENCE AND SHINE A LIGHT ON THE PATH TOWARDS LEADING A GREAT LIFE OF THE YOUNG MINDS"*. A big salute to all the teachers, and a **Happy Teachers' Day**.



She student is of Class Xth, at Kendriya Vidyalaya, Dinjan, Assam. She is a regular student in IOMS being held since April'2020. Her hobbies are reading books, story writing, sketching, exploring science mysteries or problems.

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MEASURES TO AVOID COVID-19



Krush Prasad, is a student of Class 10th at Kendriya Vidyalaya, Tenga Valley, Arunachal

TEACHERS' DAY

Nikhila T.

Teachers' day is the National festival, and it is celebrated all over India. Teachers' day is celebrated on 5th September every year, because of the DR. SARVEPALLI RADHAKRISHNAN, who was the former president of India, born on this day.

He was appointed as the chairman of the University Grants Commission(UGC) in the year 1949 and being a Teacher he always loved the Teachers' community.

Teachers' Day is celebrated in all over India as a mark of RESPECT and LOVE for the Teachers. Teachers' profession is very GRATE for the students because they are the living IDOLs for every student. Teachers are one of the best trainers make students grow on right ways to accomplish complete ambitions in life, in which subjects are just means and not the end.

Teachers are only one who prepares the children to become great Citizens of tomorrow. Teachers are the only one who are remembered throughout the life by students. The impression of Teachers is very LOVING and SINCERE.

Among all other professions, the Teachers job is very grate, and no one can become like them. Teachers exert tremendously and create a vital influence upon society.

The passion, quality and commitment goes a long way in shaping the future of the community.

Teacher is charged with the responsibility of creating awareness as well as opening the mind of people by Instilling Values, Morals, and Ethics. Teacher's efforts are recognized during the Teachers' day. The second life after the parents is given by the teachers who teaches us how to live in the world. While the students honour the teacher as GURU in various ways, the Teacher pledges to uphold the GURU SHISHYA tradition. And we should pledge wholeheartedly that we will honour our Teacher because we are all incomplete in this world without a Teacher.

I, therefore, conclude that every successful person has his Teacher's hand behind him. The students carry forward inspiration that they receive from their Teacher and get his success. Guru is very important in life of everyone. Teachers' day is celebrated to recall the role of teacher and our commitment in looking after welfare of Teachers.

Finally, there is a Festive Atmosphere throughout the day and DR. SARVEPALLI RADHAKRISHNAN is remembered on his birth anniversary.



She is a student of class 9th at Ramakrishna Mission School, Sitanagram, A.P. She is a regular participant in Interactive Online Mentoring Session (IOMS)

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Shreya, is a student of Class 10th at Kendriya Vidyalaya, Tenga Valley, Arunachal

Teachers' Day

Yamini Naga Ankitha

A teacher is a friend, philosopher, and guide who holds our hand, opens our mind, and touches our heart. The contribution of a teacher cannot be ignored at all. In many countries across the world, Teachers' day is a special day where teachers of schools, colleges, and universities are honored specially. The date varies from country to country. The universally accepted World Teachers' Day is 5th October. In India, the Teachers' Day is celebrated on 5th September and this tradition started from 1962. This is the on which **Dr. Sarvepalli Radhakrishnan** was born. He was a philosopher, scholar, teacher, and politician and his dedicated work towards education made his birthday an important day in the history of India. We remember the great work of this exemplary person on this day.

Actually, this man, Dr. Sarvepalli Radhakrishnan was a friendly teacher and he was popular among his students for

the example he always set in front of them. So, one day his students and friends requested him to allow them to celebrate his birthday in a lavish way. In return he said that it would be his pride and honor if they celebrate his birthday in respect of all teachers. And since then this day 5th September is celebrated as Teachers' Day.

Now, talking about the rest of the world, World Teachers' Day is celebrated on 5th October and it started from 1994. It was UNESCO who started this tradition. The focus set by UNESCO was to celebrate the engrossment and accomplishment of teachers and also the primacies that they put in the field of education. Now why 5th October is taken up as the Teachers' Day? On this day in the year 1966, a special intergovernmental conference adopted the UNESCO endorsement regarding the statuses of teachers.



She is a student of class 9th at Ramakrishna Mission School, Sitanagram, A.P. She is a regular participant in Interactive Online Mentoring Session (IOMS)

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शिक्षक का महत्व बताने वाली बात

अनुप्रा दुबे

सन् 1994 की बात है। उस समय भारत के राष्ट्रपति थे-डा0 शंकर दयाल शर्मा। एक बार वह सरकारी यात्रा पर एअर इंडिया की जहाज से मस्कट गये।

मस्कट के किंग थे-सुल्तान कबूस।

भारत के राष्ट्रपति का हवाई जहाज जब मस्कट पहुंचा, तब वहां सुल्तान कबूस डा0 शर्मा की अगुवाई के लिये हवाई अड्डे पर खड़े थे। जहाज रुकने पर वह जहाज के अंदर राष्ट्रपति की सीट तक गये, उनको प्रणाम किया और उन्हें विमान से उतारकर अपने साथ नीचे लाये।

जिस कार में डा0 शर्मा को होटल जाना था, उसके ड्राइवर को सुल्तान ने वहीं रुकने के लिए कहा और खुद गाडी चलाकर होटल तक गये।

ओमान का नियम है कि वहां के किंग किसी भी देश के अतिथि को लेने के लिये हवाई अड्डे पर नहीं जाते हैं।



लेखिका कक्षा ५ वी की इंडियन पब्लिक स्कूल, रोहिणी, दिल्ली में छात्रा हैं। सृजन कार्य इसकी अभिरुचि है।

बाद में, इन घटनाओं से अचंभित होकर, जब पत्रकारों ने किंग से इसका कारण पूछा तब उन्होंने जो बताया वह भी बहुत अचंभित करने वाली बात थी।

उन्होंने बताया कि वह भारत के राष्ट्रपति डा0 शर्मा को लेने हवाई अड्डे पर नहीं गये थे। वह तो अपने प्रोफेसर को लेने हवाई अड्डे पर गये थे। उन्होंने कहा कि जब वह पुणे में पढ़ते थे तब वहां डा0 शर्मा उनके प्रोफेसर थे और उनसे उन्होंने बहुत सी चीजें सीखी थीं। उन्होंने बताया कि उनके पिता और उनके बेटे भी भारत में ही पढ़े हैं।

धन्य है, अपने शिक्षक के प्रति ऐसी आदर की भावना। हमें भी अपने शिक्षकों को ऐसे ही आदर के फूल देकर उनसे आशीर्वाद लेना चाहिये और उनको हमेशा अपना आदर्श मानना चाहिये।

Thank You Teachers...

K. Sai Praneeth

We are celebrating many occasions with international days. But, in India we are celebrating National Teachers' day as the birth anniversary of our former president **Dr. Sarvepalli Radhakrishnan** who was a great professor and philosopher author. He came from a poor telugu speaking family. Radhakrishnan also suggested Religious and Spiritual education, Vocational courses, Women education and mass education in curriculum.

When some students and friends of Dr. Radhakrishnan approached him to celebrate his birthday. But, the genial teacher refused and asked to observe this day as a national teachers day instead of his birthday. Such was the love and respect of a teacher for his profession.

It is necessary students know the efforts of every teacher who are giving their best to educate the students. Such celebrations are dedicated occasions for this purpose.

Teachers should be recognised and honoured. Therefore, on these great event of Teachers' day the Merituous teachers are be awarded The National Teachers' Award by the honourable President of India.

Every individual is an enlarged replica of their teachers. It is said that "We cannot always build the future for our youth, But, we can build our youth for the future." Teachers are the ones who establish young minds and thus indeed are the Nation-Builders. "A teacher is the one who knows the way, shows the way, goes the way, and leads others through the way."

Sir Isaac Newton once said- "If I have seen further, it is by standing on the shoulders of giants." What we gain from

our teachers, our parents, everyone who guides us is no less than that from a giant. Teachers are the beacons who empower us to make the wind favourable to our journey and help us set sail to reach further academically and socially.

My friend is a teacher's son. His father is a teacher at an 'Industrial Training Institute'. I remembered that once I asked his father –'What do you get by teaching them? They get a job and then they forget you.'

The teacher said- 'That is the greatest sign of success for a teacher, when he can say that the children he once taught are now working as if he doesn't exist!'



A teacher affects eternity. You can never tell where his influence stops. They create awareness among the students and common people. They are the source of light in the world that has been darkened due to ignorance. Our teachers are the true pillars of our success.

Thanks to every teacher for your valuable contribution, guidance and encouragement that have given new impetus to the young leaders work.

In puranas we have some quotes:

Mathrudevo bava - pithrudevo bava - Acharyadevo bava. It means the third main person after our parents in our life is our teacher only.

We can meet our parents daily after growing up also, but we shouldn't forget our teachers in our life who are the main person who laid stepping stones for our good future.

Teaching is the one profession that creates all other professions.



He is a student of class 10th at Ramakrishna Mission School, Sitanagram, A.P. He is a regular participant in Interactive Online Mentoring Session (IOMS)

हमारे प्यारे अध्यापक और शैतान बच्चे

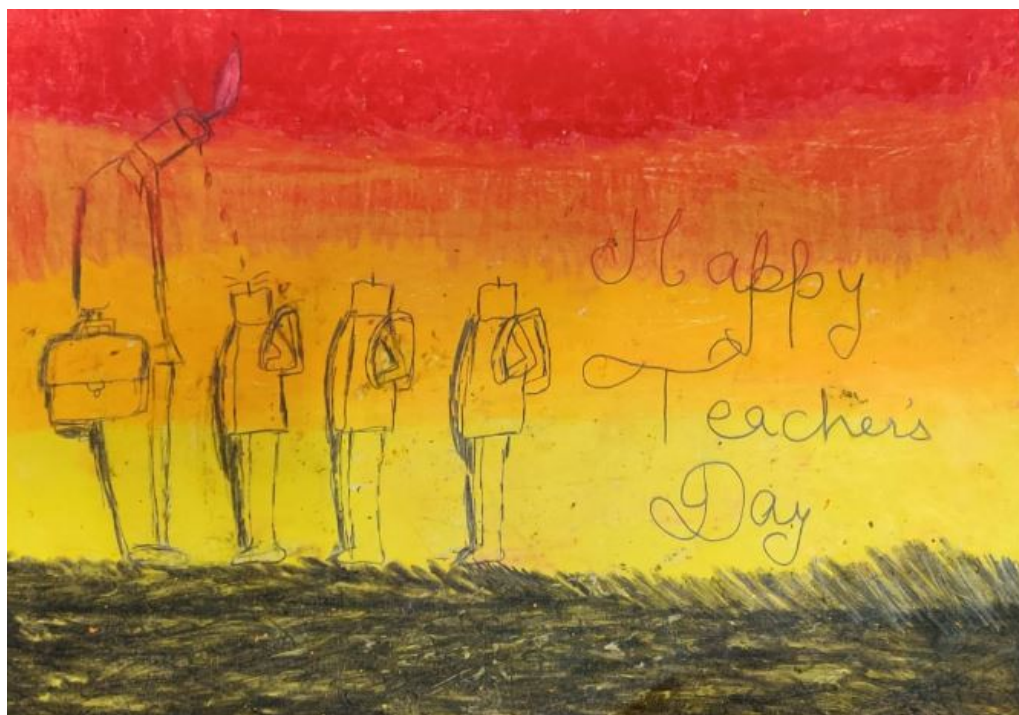
निधी

हमारे सभी अध्यापक तो है अच्छे
पर हमारे विद्यालय के शैतान है बच्चे
टीचर के जाते ही मच जाता है हल्ला
कयोकि बच्चे निकाल लेते है गेद वीकेट और बल्ला
टीचर हो जाते है हल्ले से परेशान
बच्चे टीचर का कर देते है बुरा हाल
बच्चे थक जाते है पढ पढ कर
टीचर थक जाते है पढा पढा कर
हमारे सभी अध्यापक तो है अच्छे

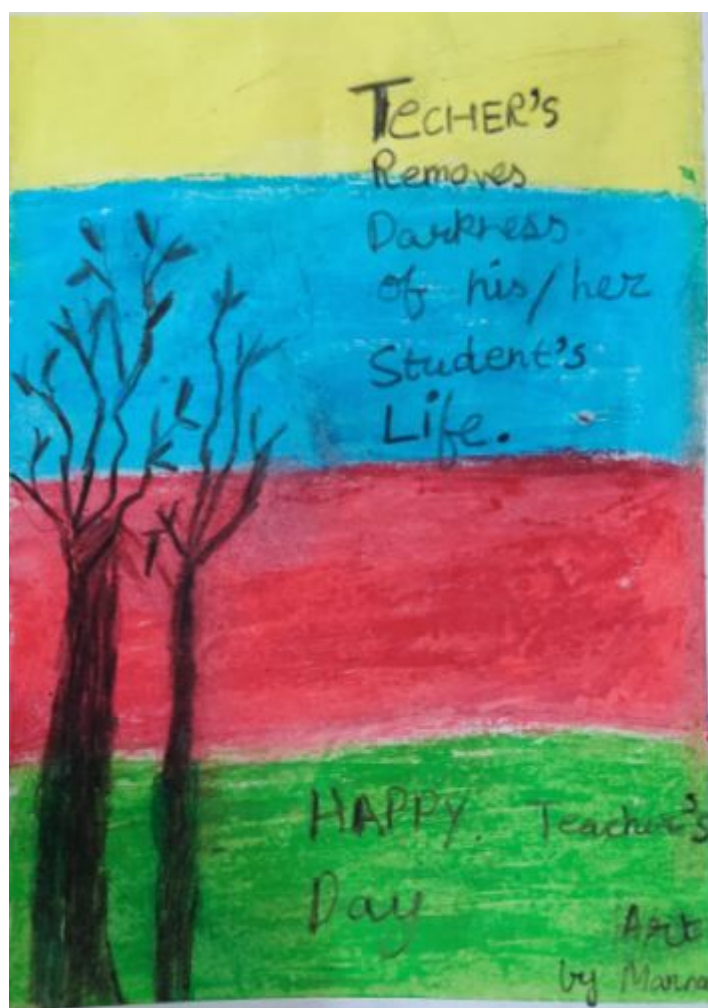
पर हमारे सभी अध्यापक तो है अच्छे
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अध्यापको ने मिलकर एक तरकीब सुझाई
एक एक बच्चे की होगी धुलाई
बच्चो ने मानगी अध्यापक से माफी
सभी बच्चो ने मिलकर अध्यापको को खिलाई बरफी
अब पता चला अध्यापको के साथ नही करनी शैतानी
वरना अध्यापक याद दिला देगे हमारी नानी



कविता एवं कला की रचयिता कक्षा 9 वीं, आर्मी पब्लिक स्कूल डिन्जन, असम की छात्रा हैं। वे नियमित रूप से IOMS को कक्षाओं में भाग लेती हैं। लेखन, चित्रकला एवं बागवानी उनकी अभिरुचि हैं।



Navya Nayan is a student of class 5 at Birla Vidya Niketan, Delhi. Drawing and music is her hobby



Mannan is a student of class 4th at Birla Niketan, Delhi. Drawing and music is his hobby.

Teachers?

Devansh

We know them from the starting of our life. They teach us not only about studies but also moral values. It is not an exaggeration to say that a great teacher can change a students' life. A great teacher makes learning fun. Teachers keep inspiring us so that we achieve success in our life and encourage us to our full potential. Teachers inspire us and then we can achieve anything in life and motivation always stays with us for our life. There is a very famous shlok in our culture

गुरुब्रह्मा गुरुरविष्णु गुरुदेवो महेश्वरा

गुरुः साक्षात् परब्रह्म तस्मै श्रीगुरवे नमः

This shlok basically indicates that teacher himself a god and should be worshipped and it is true. Teacher is someone who teaches us how to become independent also. In this modern world students have forgotten the importance of teachers and their greatness. There was a golden time when teacher considered equal to God, but now in today's world all the sacraments in the world have

been erased. According to me if you want to find God you can only find him in three people only

1) Mother

2) Father

3) Teacher

A teacher is very important in the mahabharata also. Lord Krishna came as a mentor to Arjun when Arjuna got scared to fight war. Then Krishna removed the darkness from Arjun's heart and filled it with courage and light of truth. If then Krishna would not have come as a teacher to Arjun, then he would have lost the war. Teachers are also like our own parents. I think we have forgotten that a student approximately spends more time at school than at home so on the occasion of teachers' day which let's give respect to teachers and thank them for giving us knowledge, moral values and the way of living a good life.

ॐ गुरु है महान

वहीं कर सकता है तुम्हारा उत्थान

जब तुम्हारे चारों तरफ होता है अंधकार

तब गुरु ही है जो तुम्हारे अंधकार का करता है संहार

गुरु है एक ज्ञान की धारा

जब हो तुम निर्बल तब वहीं बनेंगे तुम्हारा सहारा

आज के ज़माने के शिष्यों को होना चाहिए जैसे एकलव्य

जो काट के दे अपना अंगूठा

चाहे उनका गुरु हो उनसे रूठा

क्योंकि गुरु है महान

वहीं कर सकता है उत्थान ॐ



रचनाकार, कक्षा 9 वीं, आर्मी पब्लिक स्कूल, डिन्जन, आसाम का छात्र है। वह IOMS कक्षाओं में नियमित हिस्सा लेता है। लेखन इसकी अभिरुचि है।



Priyanshu Upadhyay

He is a student of Class 9th at Kendriya Vidyalaya, Dinjan Assam. He is attending Interactive Online Mentoring Sessions (IOMS)



Kaushik Borah

He is a student of Class Xth at Army Public School, Dinjan Assam. He is attending Interactive Online Mentoring Sessions (IOMS)



TEACHERS CHANGE LIVES

Trisha Samal

In a student's life, many teachers teach him. There are endless number of stories that attest to the benefits of a strong relationship between a teacher and a student. A teacher never knows which student he or she is going to inspire to achieve his or her goals. Sometimes, a teacher might feel that he or she has not done much for a student, but that student might feel that particular teacher has highly contributed to his or her future.

A Teachers' purpose is not to create his image in minds of his students, but to develop students so that they can create their image and stand on their feet.

They change their student's life by making learning easier. They create an exciting environment in classroom for learning. They inspire students by telling their experience and encourage them to fulfill their ambition. Beyond the text books they teaches us the lessons of life that help us to become a more successful person. It is not easy to change a student's life, therefore the relationship

of a teacher and a student is very precious. Teachers are like a candle; they burn to give light to others.

So, let us celebrate their day by thanking them.

T-Thank you for all the

H-Hours you spend,

A-Attention you gave,

N-Needs that you tend,

K-Knowledge you pass on,

Y-Your special care,

O-Offering guidance,

U-Undaunted by much.

HAPPY TEACHERS' DAY



Trisha Samal is a Student of Class IXth at No 1, Air Force School, Gwalior, Madhya Pradesh. She is participating in Interactive Online Mentoring Sessions (IOMS). Drawing, singing and writing are her hobbies



Krittika Dwivedi, is a student of Class 3, Brigade School, Mahadevpura Bangalore. Drawing and writing are her hobbies.

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The Two Friends

Natchya Tiwari

Once upon a time there were two friends. They were traveling in the wood. It was very difficult to move there. There were big trees across the ways. There were thorn bushes and so many obstacles.

They had just walked for a while; they saw a lake blocking their way. There was no other way to go forward.

By the time, one friend had already started feeling desperate. He said, "We shall die here."

But the other friend said, "We won't die. It's just a puddle. We just have to swim across it."

But the first friend was still saying, "We will die. There are no other ways to go."

He sat down with despair.

The second friend did not leave hope. He tried to swim across the puddle as far as he could. Finally, he reached the opposite side.



Moral of The Story

We should not despair and should not stop trying



Author is a student of CRM School in Chiangrai (Thailand). She studies in standard 9. Her hobbies are swimming, playing basketball, badminton & bicycling. She loves reading books. She is fond of writing short stories. She believes that one should always live by the rules because staying with the rules generates discipline. Discipline is very necessary for the students

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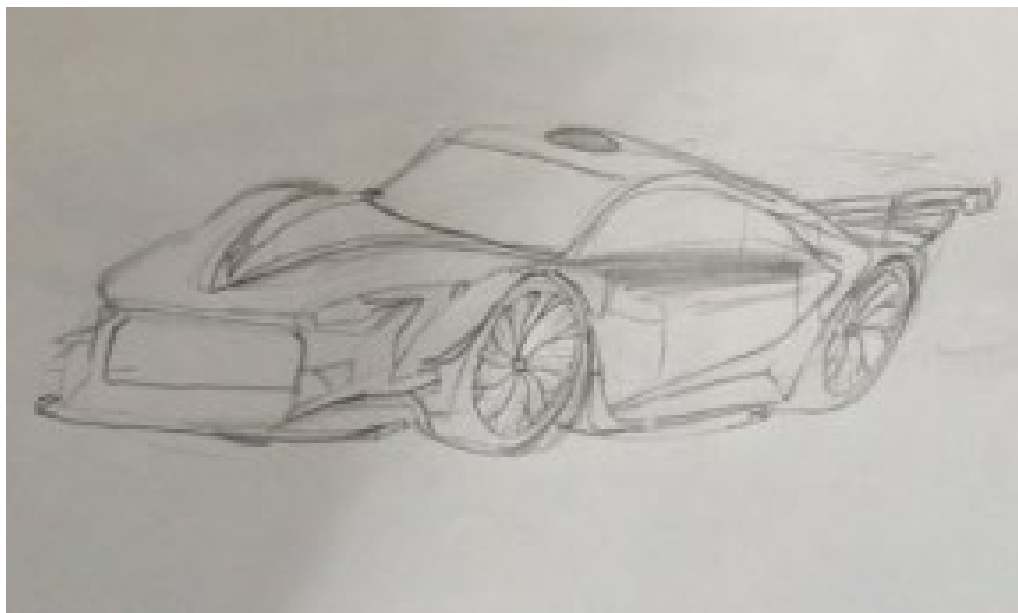


A. Vardhan is a Student of Class Xth at RKM School Sithanagram, A.P. He attends IOMS at the school and is continuing since class IXth. Drawing is his hobby.



Presha Gupta, studies in Class IVth at Apeejay School, Noida. Drawing is her hobby.





Paarth Karve is a student of Class 5th, at Institute of Computer and Technology Model School, Pune. Sports, music and drawing are his hobbies.

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How I Overcome Challenges in life

Dishita Joshi

Challenges are difficult to overcome. It wouldn't be a challenge if the solution to it was obvious and easy. We all face challenges in life. Some do more than others, but we all do face struggles in our journey of life. We can not escape challenges, but we can certainly choose how we respond to them. Following are some ideas that I found effective to overcome challenges more easily:

- A very nice way to go about solving the problem is to change our perspective of looking at it. A great way to change our perspective is by putting our feet in someone else's shoes. Looking through some else's eyes, helps us see different sides of the problem and hence helps us solve it better.
- When life gives you lemons, it is really easy to wallow in self-pity. However, what we should do instead is enjoy a lemonade. We should reach out to people that care about us and vice versa. Different people have different perspectives, so their opinions

can help us reframe things. This again helps us see the challenge through different perspectives.

- Sometimes it is actually important to let the sad emotions out, but once one is done with that they should let go of all the limiting beliefs and negative thoughts.
- Another really significant way to tackle challenges in life is to start journaling. Just write down your thoughts on a piece of paper. Writing our thoughts down helps in getting it out of our head. It gives one mental clarity and helps one see the problem straightforwardly.

Everybody goes through some or the other hiccups in life. I hope that my experiences would initiate a thought process among us, youngsters, to introspect and carve a way forward so that we are able to overcome the problems of life and come up stronger than before.



Author is a student of class 9th, at The Khaitan School, NOIDA. Her hobbies include reading, writing, drawing, painting classical music, and playing Tennis.

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A Sampath is a student of Class 9th at RKM School, Sitanagram, A.P. He is regularly participating in Interactive Online Sessions being conducted for students of the school



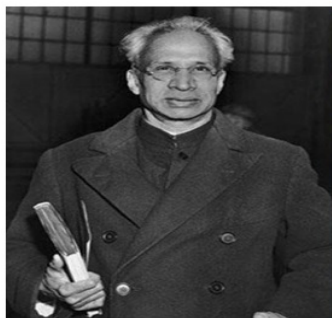
M. Pavan made the clay-work. He is a student of Class Xth at RKM School, Sitanagram, A.P. He is regularly participating in Interactive Online Sessions being conducted for students of the school

Teachers' Day in India

P. Ganesh

Teachers' Day in India is celebrated on 5th September to commemorate the birth anniversary of Dr. Sarvepalli Radhakrishnan. He was a renowned scholar, recipient of Bharat Ratna, first Vice- President and second President of independent India. He was born on 5 September, 1888. As an educationist, he was an advocate of edification, and was a distinguished envoy, academician, and above all a great teacher.

As the common slogan goes, the future of a country lies in the hands of its children and teachers, as mentors, can mould students into future leaders who shape the destiny of India. They play an important role in our lives to become successful in career and business. They help us to become a good human being, a better member of the society and an ideal citizen of the country. Teachers' Day is celebrated to acknowledge the challenges, hardships and the special role that teachers play in our lives



Importance of Teachers' Day

Teachers' Day is one such event for which students and teachers equally look forward to. Teachers' Day is important for the students as it gives them a chance to understand the efforts put in by their teachers to ensure that they get proper education. Similarly, teachers also look forward to Teachers' Day celebration as their efforts get recognised and honoured by students and other agencies as well.

Teachers should be respected and honoured. In India, on the eve of Teachers' Day, i.e. on 5 September, the National Teachers' Awards are given to the meritorious teachers by the President of India. The awards are conferred as a public gratitude to praiseworthy teachers working in the primary schools, middle schools and secondary schools.

Even according to our **Prime Minister** "*Teaching is not a profession, a way of life*". Further, he added that teaching is not a profession but "**Jeevan Dharm**" (a way of life) and asked teachers to understand changes happening across the world so that they can prepare the new generation to face them. In fact, it is a divine responsibility to guide and enlighten. He also said that India should regain the status of '**Vishwaguru**' (leader in education) by giving high respect to teachers whom he asked to encourage students to think critically about issues concerning nation. He told that "*Teachers*

determination and sincerity will shape the destiny of the nation as they are laying foundation and the building blocks of the society".

Who are Teachers?

Teachers nourish and prepare students their future as they are the real icon of knowledge and wisdom. They create awareness among the students and common people. They are the source of light in the world that has been darkened due to ignorance. Our teachers are the true pillars of our success. They help us garner knowledge, improve our skills, grow confidence as well as they help us to choose the right path to success. But, despite playing such a crucial role in the lives of students and in nation building, they rarely are shown the gratitude that they deserve. So, as a student it is our duty to thank them at least once a year and Teachers' Day

gives us an ideal opportunity to do so!

In addition to their own teachers and mentors, 5th September is also a day when a person can look back, and be inspired by the life and works of Dr. S. Radhakrishnan. Dr Radhakrishnan, hailed from a small city boy and with the help of education he became an esteemed politician and a visionary educationist.

Dr. Sarvepalli Radhakrishnan:

He is one of the most renowned writers in contemporary India. He has made significant contribution to a variety of subjects starting from theoretical, theological, moral, instructive, communal and enlightening subjects. He wrote several articles to many recognised journals which are of great importance.

Why is Teachers' Day Celebrated?

Dr. Radhakrishnan became President of India in 1962. He was approached by some of his friends and students who requested him to allow them to celebrate his birthday on 5 September. Dr. S. Radhakrishnan responded, "Instead of observing my birthday discretely, it would be my pompous privilege if 5th September is scrutinised as Teachers' Day". Such a request coming from President of India clearly showcased Dr. S. Radhakrishnan affection and dedication for teachers. From then onwards, India celebrates Teachers' Day on 5th September.

On the Teachers' Day, students hold different activities to entertain teachers at schools and colleges. These activities include *singing* competition, dance competition, recitation of poems, mimicry of teachers, lots of *games* children play with teachers, plan a *picnic*, offer *gifts* and at last they thank teachers by expressing their gratitude.

Teachers' Day is a great occasion for celebrating and enjoying the relationship between teachers and students. So, try to meet your reach that.



teachers on the day and convey your wishes. If they are far then send them message and make his/her day memorable.

And to fulfil the requirements of the 21st century and gain Atmanirbhar Bharat as the clashes between the India and China are raised. To arrest the entry of the goods from other countries. The teachers of the India, have to make the students to



P. Ganesh, is a student of Class 10th at RKM School, Sitanagram, A.P. He is regularly participating in Interactive Online Sessions being conducted for students of the school.

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Ishaan Shrivastava is a student of class 3 at Birla Vidya Niketan, Delhi. Drawing is his hobby

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I learnt an invaluable lesson from Lamp; Worth of a person is as long as it helps others Stay Illuminated; What it can is an Insurance Policy; Rest all is Liability.

—00—

TEACHERS: Show Us The Way**Luji Hati Bourah**

God created teachers
To show us the way
Make our life meaningful
All through the day

They hold our hands
And teach us to write
They guide us and tell us
What's wrong and what's right

They tell us to respect the old
They teach us to be bold
Respect the teachers with all the grace
Who made the School a beautiful place?

—00—

LIFE AFTER CORONA PANDEMIC**Luji Hati Boruah**

Coronavirus a very dangerous virus spread through bats in Wuhan China also known as covid-19 it is a very harmful virus to mammals such as human beings which can cause to death. This virus has no vaccine yet so people has to take precautions for the following disease. Coronavirus can be transmitted from humans to humans and also through animals to humans. Coronavirus can stay inside human body till 7 days without showing any effect on the body.

Many precautions must be taken to be safe from covid-19. These are the following like wash your hands frequently, avoid using or taking cold drinks or ice creams, use handkerchief or tissue while coughing and sneezing, maintain 1 metre distance while talking to

anyone, etc. This virus is capable of being in copper, steel, iron etc for many hours. Coronavirus started from Wuhan in China had spread in all over the world.

Life after corona will be so harsh and difficult as there will be a lot change in human life after Corona the people have to maintain everything nicely and as per the precautions. If the Vaccine of corona comes then everything will be normal again, we will be able to celebrate the festival with happiness but if the vaccine doesn't come then it can destroy the human life or as even if it doesn't destroy we have to take the precautions and our life will be dull with no festive and other social functions. So be safe till the vaccine comes and stay at home so that you and us everybody can be safe.

STAY HOME STAY SAFE

The poet and author are by a student of class IXth at APS, Dinjan. She is participant in online mentoring under IOMS since Class IXth. Her hobbies are writing, drawing and dancing.

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Education breeds confidence; Confidence breeds hope; Hope breeds peace.

Confucius

—00—

Teachers: All Seasons

Simi Hati Boruah

A teacher is like summer,
Whose sunny temperant
Makes study pleasure,
Preventing discontent,

A teacher is like fall,
With methods crisp & clear
Lessons of bright color
And a happy atmosphere

A teacher is like winter
While it's snowing outside
Keeping students comfortable,
As a warm & helpful guide

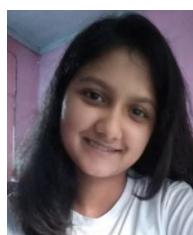
A teacher is like a butterfly
Who sits on every flower
Keep testing the nature of the students
As a beautiful guide

Teachers you do all these things
With a pleasant attitude
You're a teacher for all seasons,
And u have my gratitude.



The Poet and artist is a student of class Xth at APS, Dinjan. She is participant in online mentoring under IOMS since Class IXth. Her hobbies are drawing, reading and writing.





Tamanna Nath is a student of class 11th (PCM), at Army Public School Dinjan. She is participating in IOMS. Her hobbies are sketching, dancing, singing and maths. She looks for opportunities to do better so as to become a person of human worth,



Uha Chandrika, is a student of Class 9th at RKM School, Sitanagram, A.P. She is regularly participating in Interactive Online Sessions being conducted for students of the school



MOTION AS THE NATURAL STATE OF THINGS

Ravi Nayan

When I was in class 8, I heard my elder sister studying motion. Then I started pondering that what the natural state of a thing is? Is it rest or motion? Thus triggered in me a series of questions and an imagination and to explore answers. This article is my understanding at that stage and is as under -

Then, I arrived at a conclusion that motion is the natural state of all things because anything that seems to be at rest is in motion. Everything is attached to the Earth and the Earth is moving. Therefore, we can say that everything that seems to be at rest is in motion.

For any matter, it is not possible to be at complete rest as its molecules are continuously in motion. For instance, if you see a soccer ball lying on the ground, it seems to be at rest but as it is connected to the Earth and the Earth is moving, so it is said to be in motion. Temperature is the manifestation of motion, the more the molecular vibration; the more is the temperature of that body. We cannot keep light static; the sensation of sound is due to vibratory motion. Things become visible due to the movement of light waves. Time is also moving. All matters have got their characteristic vibrations. Even if the water seems to be at rest in a pond, its molecules keep on moving. A solid thing at rest is not absolutely at rest, its molecules keep on vibrating around their mean position of rest.

In physics, motion is a change in position of an object over time. Motion is described in terms of displacement,

distance, velocity, acceleration, time and speed. The motion of a body is observed by attaching a frame of reference to an observer and measuring the change in position of the body relative to that frame.

If the position of the body is not changing for a given frame of reference, the body is said to be at rest, motionless, immobile, stationary, or to have a constant(time-invariant) position. An object's motion cannot change unless it is acted upon by a force, as described. Momentum is a quantity which is used for measuring the motion of an object. An object's momentum is directly related to the object's mass and velocity, and the total momentum of all objects in an isolated system (one not affected by external forces) does not change with time, as described by the law of conservation of momentum. As there is no absolute frame of reference, absolute motion cannot be determined. Thus, everything in the universe can be considered to be moving.

Conclusion: Now, when I am learning the Laws of Motion as a student of class XIth, to understand **how and why** of those concepts which I had learnt as **what** it is in lower classes, it gives me a pleasure that I was not much off the mark, and I need to ponder upon these concepts more deeply to evolve an ability to relate them with physical phenomenon around me and solve the problems involving multiple concepts. Secondly, I am strongly convinced that 'knowledge may be limited but imagination has no limits' as rightly said by Einstein.



Ravi Nayan is a student of class 11th (PCM) at Army Public School, Dinjan. He is participating in Interactive Online Mentoring Sessions. Sketching, mathematics, making videos and growing together with peers are his hobbies.

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*The whole idea of compassion is based on a keen awareness
of the interdependence of all these living beings,
which are all part of one another, and all involved in one another.*

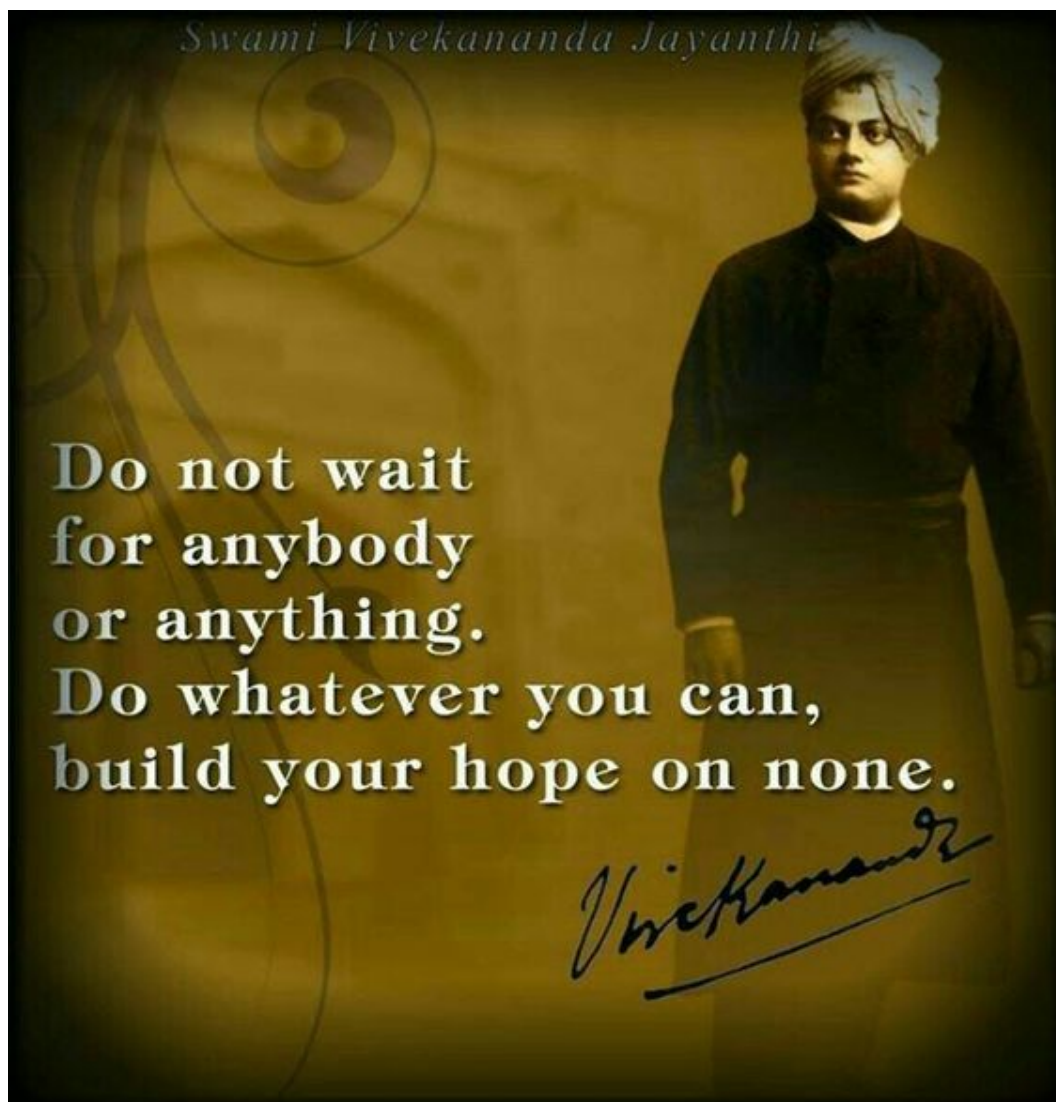
Thomas Merton

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P. Subhash, is a student of Class 9th at RKM School, Sitanagram, A.P. He is regularly participating in Interactive Online Sessions being conducted for students of the school

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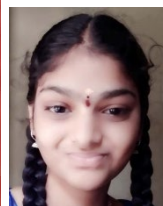




M. Navytha, is a student of Class 10th at RKM School, Sitanagram, A.P. She is regularly participating in Interactive Online Sessions being conducted for students of the school



V. Madhuri, is a student of Class 9th at RKM School, Sitanagram, A.P. She is regularly participating in Interactive Online Sessions being conducted for students of the school



Kruthika, is a student of Class 10th at RKM School, Sitanagram, A.P. She is regularly participating in Interactive Online Sessions being conducted for students of the school

LET'S DO SOME PROBLEMS IN MATHEMATICS-XXIII

Prof. SB Dhar

TMUA stands for The Test of Mathematics for University Admission. It is basically Cambridge Assessment Admission Testing. Students get chance to show their skills to succeed on a demanding Mathematics degree. The test gives them a risk-free opportunity to prove their potential.

The Test details can be found out at: admissionstesting.org/tmua. This test consists of two papers to do consecutively. The First Paper consists of Mathematical Thinking. Its duration is 75 minutes. It has 20 multiple-choice questions. The questions focus on assessing the ability of the aspirants to apply their knowledge of mathematics in new situations. The Second Paper relates to the Mathematical Reasoning. Its duration is also 75 minutes. It has also 20 multiple-choice questions. The Questions focus on assessing the ability to deal with mathematical reasoning, and simple ideas from elementary logic.

The registration for the year 2020, will start on 1st September. The test date is 4th November. The Results will be declared on 30th November.

Some questions from the past years Test Papers are being given here to understand the standard of the questions. The solutions are not being written. Only answers have been given at the end of the question. In case, any reader needs the solution, he or she may request for it through the official mail of the Coordinator.

QUESTIONS

Q1. Find the value of $\int_1^4 \frac{3-2x}{x\sqrt{x}} dx$

- (a) $-\frac{13}{2}$ (b) $-\frac{85}{16}$ (c) $-\frac{13}{8}$ (d) -1
(e) $-\frac{1}{4}$ (f) $\frac{7}{4}$ (g) 7

Ans.(d)

Q2. An arithmetic progression has first term a , and common difference d . The sum of the first 5 terms is equal to the sum of the first 8 terms. Which one of the following expresses the relationship between a and d ?

- (a) $a = -\frac{38}{3}d$ (b) $a = -7d$

- (c) $a = -6d$ (d) $a = 6d$
(e) $a = 7d$ (f) $a = \frac{38}{3}d$

Ans.(c)

Q3. Find the shortest distance between the two circles with equations:

$$(x+2)^2 + (y-3)^2 = 18$$

$$(x-7)^2 + (y+6)^2 = 2$$

- (a) 0 (b) 4 (c) 16
(d) $2\sqrt{2}$ (e) $5\sqrt{2}$

Ans.(e)

Q4. Consider the simultaneous equations

$$3x^2 + 2xy = 4, \text{ and}$$

$$x + y = a$$

where a is a real constant. Find the complete set of values of a for which the equations have two distinct real solutions for x .

- (a) there are no values of a (b) $-2 < a < 2$
(c) $-1 < a < 1$ (d) $a = 0$
(e) $a < -1$ or $a > 1$ (f) $a < -2$ or $a > 2$

Ans.(g)

Q5. The function f is defined by

$$f(x) = x^3 + ax^2 + bx + c.$$

a , b and c take the values 1, 2 and 3 with no two of them being equal and not necessarily in this order. The remainder when $f(x)$ is divided by $(x+2)$ is R . The remainder when $f(x)$ is divided by $(x+3)$ is S . What is the largest possible value of $R - S$?

- (a) -26 (b) 5 (c) 7
(d) 17 (e) 29

Ans.(d)

Q6. Find the number of solutions of the equation $x \sin 2x = \cos 2x$ with $0 \leq x \leq 2\pi$.

- (a) 0 (b) 1 (c) 2
(d) 3 (e) 4

Ans.(e)

Q7. The non-zero constant k is chosen so that the coefficients of x^6 in the expansions of $(1+kx^2)^7$ and $(k+x)^{10}$ are equal. What is the value of k ?

- (a) $\frac{1}{6}$ (b) 6 (c) $\frac{\sqrt{6}}{6}$
 (d) $\sqrt{6}$ (e) $\frac{\sqrt{30}}{30}$ (f) $\sqrt{30}$

Ans.(a)

Q8. The sum to infinity of a geometric progression is 6. The sum to infinity of the squares of each term in the progression is 12. Find the sum to infinity of the cubes of each term in the progression.

- (a) 8 (b) 18 (c) 24
 (d) $\frac{216}{7}$ (e) 72 (f) 216

Ans.(d)

Q9. Find the complete set of values of the constant c for which the cubic equation

$2x^3 - 3x^2 - 12x + c = 0$ has three distinct real solutions.

- (a) $-20 < c < 7$ (b) $-7 < c < 20$ (c) $c > 7$
 (d) $c > -7$ (e) $c < 20$ (f) $c < -20$

Ans.(b)

Q10. x and y satisfy $|2 - x| \leq 6$ and $|y + 2| \leq 4$. What is the greatest possible value of $|xy|$?

- (a) 16 (b) 24
 (c) 32 (d) 40
 (e) 48 (f) there is no greatest possible value

Ans.(e)

Q11. The line $y = mx + 5$, where $m > 0$, is normal to the curve $y = 10 - x^2$ at the point (p, q) . What is the value of p ?

- (a) $\frac{\sqrt{2}}{6}$ (b) $-\frac{\sqrt{2}}{6}$ (c) $\frac{3\sqrt{2}}{2}$
 (d) $-\frac{3\sqrt{2}}{2}$ (e) $\sqrt{5}$ (f) $-\sqrt{5}$

Ans.(c)

Q12. A curve has equation $y = f(x)$, where $f(x) = x(x - p)(x - q)(r - x)$ with $0 < p < q < r$. You are given that:

$$\int_0^r f(x) dx = 0$$

$$\int_0^q f(x) dx = -2$$

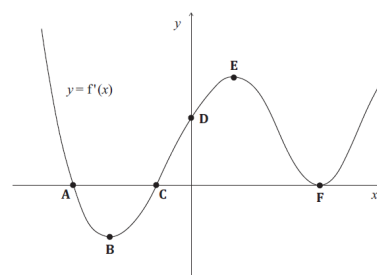
$$\int_p^r f(x) dx = -3$$

What is the total area enclosed by the curve and the x -axis for $0 \leq x \leq r$?

- (a) 0 (b) 1 (c) 4
 (d) 5 (e) 6 (f) 10

Ans.(f)

Q13. The function $f(x)$ has derivative $f'(x)$. The diagram below shows the graph of $y = f'(x)$. Which point corresponds to a local minimum of $f(x)$?



Ans.(c)

Q14. The line $y = mx + 4$ passes through the points $(3, \log_2 p)$ and $(\log_2 p, 4)$. What are the possible values of p ?

- (a) $p=1$, and $p=4$ (b) $p=1$ and $p=16$
 (c) $p=\frac{1}{4}$ and $p=4$ (d) $p=\frac{1}{4}$ and $p=64$
 (e) $p=\frac{1}{64}$ and $p=4$ (f) $p=\frac{1}{64}$ and $p=16$

Ans. (b)

Q15. Find the sum of the real solutions of the equation:

$$3^x - (\sqrt{3})^{x+4} + 20 = 0$$

- (a) 1 (b) 4 (c) 9
 (d) $\log_3 20$ (e) $2\log_3 20$ (f) $4\log_3 20$

Ans. (e)

Q16. The curve C has equation $y = x^2 + bx + 2$, where $b \geq 0$. Find the value of b that minimizes the distance between the origin and the stationary point of the curve C .

- (a) $b=0$ (b) $b=1$ (c) $b=2$
 (d) $b=\frac{\sqrt{6}}{2}$ (e) $b=\sqrt{2}$ (f) $b=\sqrt{6}$

Ans. (f)

Q17. There are two sets of data: the mean of the First set is 15, and the mean of the

Second set is 20. One of the pieces of data from the first set is exchanged with one of the pieces of data from the second set. As a result, the mean of the first set of data increases from 15 to 16, and the mean of the second set of data decreases from 20 to 17. What is the mean of the set made by combining all the data?

- (a) $16\frac{1}{4}$ (b) $16\frac{1}{3}$ (c) $16\frac{1}{2}$
 (d) $16\frac{2}{3}$ (e) $16\frac{3}{4}$

Ans.(a)

Q18. What is the smallest positive value of a for which the line $x = a$ is a line of symmetry of the graph of $y = \sin(2x - \frac{4\pi}{3})$?

- (a) $\frac{\pi}{12}$ (b) $\frac{5\pi}{12}$ (c) $\frac{7\pi}{12}$
 (d) $\frac{11\pi}{12}$ (e) $\frac{19\pi}{12}$

Ans. (b)

Q19. A triangle ABC is to be drawn with $AB = 10\text{cm}$, $BC = 7\text{cm}$ and the angle at A

Equal to θ , where θ is a certain specified angle. Of the two possible triangles that could be drawn, the larger triangle has three times the area of the smaller one.

What is the value of $\cos \theta$?

- (a) $\frac{5}{7}$ (b) $\frac{151}{200}$ (c) $\frac{2\sqrt{2}}{5}$
 (d) $\frac{\sqrt{17}}{5}$ (e) $\frac{\sqrt{51}}{8}$ (f) $\frac{\sqrt{34}}{8}$

Ans. (d)

Q20. Find the value of

$$\sin^2 0^\circ + \sin^2 1^\circ + \sin^2 2^\circ + \sin^2 3^\circ + \dots + \sin^2 87^\circ + \sin^2 88^\circ + \sin^2 89^\circ + \sin^2 90^\circ$$

- (a) 0.5 (b) 1 (c) 1.5
 (d) 45 (e) 45.5 (f) 46

Ans. (e)

Q21. Find the value of the constant term in the expansion of

$$\left(x^6 - \frac{1}{x^2}\right)^{12}$$

- (a) -495 (b) -220 (c) -66
 (d) 66 (e) 220 (f) 495

Ans.(b)

Q22. The non-zero real number c is such that the equation $\cos x = c$ has two solutions for $0 < x < \frac{3}{2}\pi$.

How many solutions of the equation $\cos^2 2x = c^2$ are there in the range $0 < x < \frac{3}{2}\pi$?

- (a) 2 (b) 3 (c) 4
 (d) 6 (e) 7 (f) 8

Ans.(d)

Q23. Which one of the following functions provides a counterexample to the statement?

If $f'(x) > 0$ for all real x , then $f(x) > 0$ for all real x .

- (a) $f(x) = x^2 + 1$ (b) $x^2 - 1$
 (c) $x^3 + x + 1$ (d) $1 - x$ (e) 2^x

Ans.(c)

Q24. Sequence 1 is an arithmetic progression with first term 11 and common difference 3.

Sequence 2 is an arithmetic progression with first term 2 and common difference 5.

Some numbers that appear in Sequence 1 also appear in Sequence 2. Let N be the

20th such number. What is the remainder when N is divided by 7?

- (a) 0 (b) 1 (c) 2 (d) 3
 (e) 4 (f) 5 (g) 6

Ans.(b)

Q25. Consider the equation $2^x = mx + c$, where m and c are real constants.

Which of the following statements is/are true?

I The equation has a negative real solution only if $c > 1$.

II The equation has two distinct real solutions if $c > 1$.

III The equation has two distinct positive real solutions if and only if $c \leq 1$.

- (a) none of them (b) I only (c) II only
(d) III only (e) I and II only (f) I and III only
(g) II and III only (h) I, II and III

Ans.(a)

Q26. $f(x)$ is a polynomial function defined for all real x . Which of the following is a necessary condition for the inequality?

$$\frac{f(a) + f(b)}{2} \geq f\left(\frac{a+b}{2}\right)$$

to be true for all real numbers a and b with $a < b$?

- (a) $f(x) \geq 0$ for all real x (b) $f'(x) \geq 0$ for all real x
(c) $f'(x) \geq 0$ for all real x (d) $f(x) \leq 0$ for all real x
(e) $f'(x) \leq 0$ for all real x (f) $f'(x) \leq 0$ for all real x

Ans.(c)

Q27. Three real numbers x, y and z satisfy $x > y > z > 1$. Which one of the following statements must be true?

- (a) $\frac{2^{z+1}}{2^x} > \frac{2^x + 2^z}{2^y}$ (b) $2 > \frac{3^x + 3^z}{3^y}$
(c) $\frac{2 \times 5^x}{5^z} > \frac{5^x + 5^z}{5^y}$ (d) $2 < \frac{7^x + 7^z}{7^y}$

Ans.(c)



The author, is **Editor of this Monthly e-Bulletin**. He is an eminent mentor, analyst and connoisseur of Mathematics from IIT for preparing aspirants of Competitive Examinations for Services & Admissions to different streams of study at Undergraduate and Graduate levels using formal methods of teaching shared with technological aids to keep learning at par with escalating standards of scholars and learners. He has authored numerous books of excellence.

e-Mail ID: maths.iitk@gmail.com

—00—

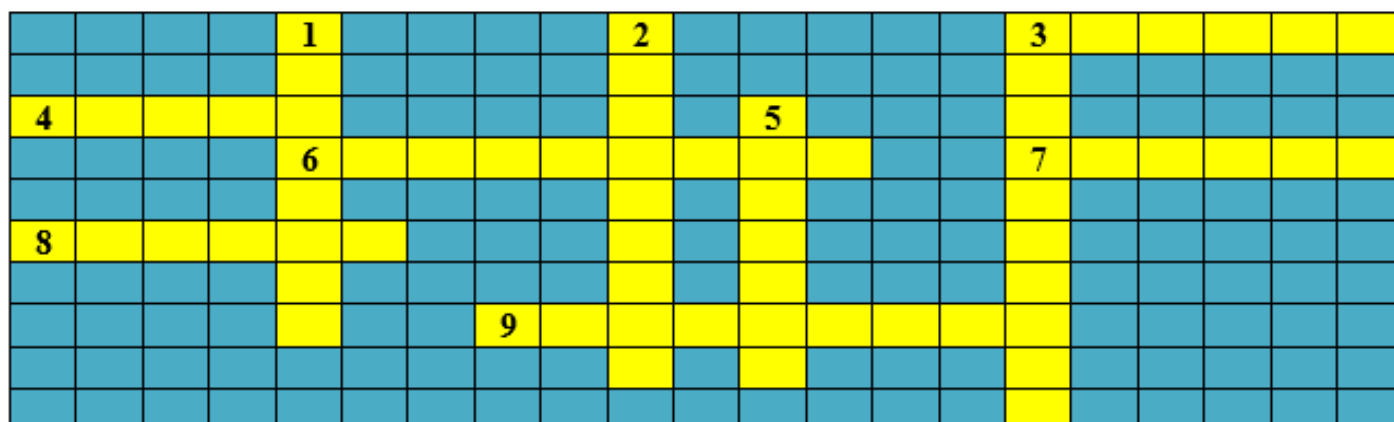
Nature is a beautiful integration of different entities. Mathematics and science only discover them.

Euler's Identity $0 = 1 + e^{j\pi}$ is an excellent example of integration. Each of the constituent was discovered independently, by different mathematicians, at different point of time.

Yet, they all complement each other.

Changing either of the constituents will need whole nature to be rediscovered.

—00—

CROSSWORD PUZZLE: TEACHERS' DAY OF WORLD COUNTRIES**Prof. SB Dhar**

ACROSS	DOWN
3 Country with Teachers' day on May 2 nd	1 Country with Teachers' day on January 16 th
4 Country with Teachers' day on September 10 th	2 Country with Teachers' day on September 11 th
6 Country with Teachers' day on November 25 th	3 Country with Teachers' day on October 5 th
7 Country with Teachers' day on January 30 th	5 Country with Teachers' day on November 20 th
8 Country with Teachers' day on September 28 th	
9 Country with Teachers' day on First Friday of September	

—00—

Answer to this Crossword Puzzle shall be provided in next issue of this e-Bulletin

—00—

*Ask the right questions, and nature will open the doors of her secrets***-Sir C.V. Raman**

—00—

Growing with Concepts: Physics

We regret our inability to maintain continuity of this column. However, we are committed to resume it shortly

—00—

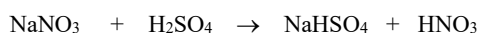
Growing with Concepts: Chemistry

NITRIC ACID

Kumud Bala

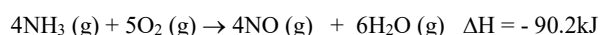
Nitric acid is the most important oxoacid of nitrogen. It is very strong oxidizing agent and is quite useful. Nitrogen has shown an oxidation state of +5 in nitric acid.

Laboratory preparation of nitric acid: Nitric acid can be prepared by heating sodium or potassium nitrate with conc. H_2SO_4 to about 423-475K.

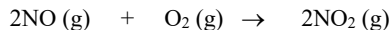


Anhydrous nitric acid can be obtained by distillation of concentrated aqueous nitric acid with P_4O_{10} .

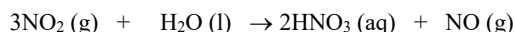
Manufacture of nitric acid:- Nitric acid is commonly manufactured by Ostwald's process in which it is prepared by the catalytic oxidation of ammonia by atmospheric oxygen. The reaction is carried out at about 500K and 9 bar pressure in the presence of Pt or Rh (Rhodium) gauge as catalyst.



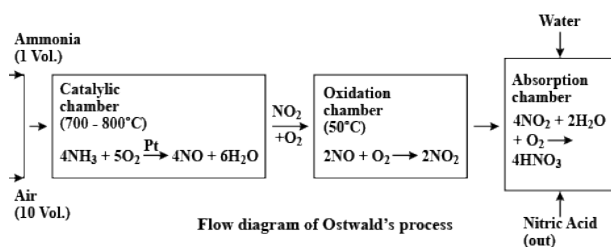
Nitric oxide thus formed combines with oxygen to form nitrogen dioxide.



Nitrogen dioxide so formed dissolves in water to give nitric acid.



The NO thus formed is recycled and the aqueous HNO_3 can be concentrated by distillation up to 68% by mass. Dilute nitric acid is further concentrated by dehydration with concentrated sulphuric acid to get about 98% acid.



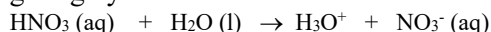
Physical properties of nitric acid:

- Pure nitric acid is a colourless liquid.
- It has boiling point 355.6K and freezing point 231.4K.
- It has a specific gravity of 1.504.
- The impure acid is generally yellow due to the presence of nitrogen dioxide as impurity. Nitric acid containing dissolved nitrogen dioxide is known as fuming nitric acid

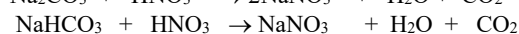
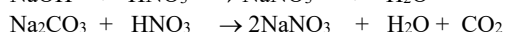
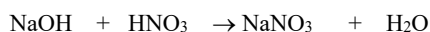
- It has a corrosive action on skin and produces painful blisters.

Chemical Properties:

- Acidic character:** It is one of the strongest acids because it is highly ionized in aqueous solution giving hydronium and nitrate ions.

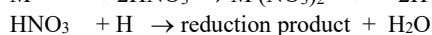
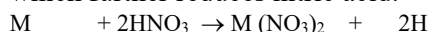


It turns blue litmus red. It forms salts with alkalis, carbonates and bicarbonates.



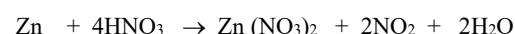
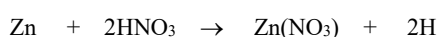
- Action on metals:-** with the exception of gold and platinum (noble metal), nitric acid attacks all metals forming a variety of products. The product depends upon the nature of metal, the concentration of acid and temperature. The mode of reaction of HNO_3 and metals can be divided into two main categories.

(i) Metals those are more electropositive than hydrogen (Mg, Al, Mn, Zn, Fe, Pb etc.) Metal lying above hydrogen in electrochemical series react with HNO_3 as: In this case nascent hydrogen is liberated which further reduces nitric acid.

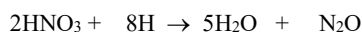
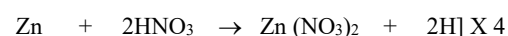


Reduction product is NO_2 with conc. HNO_3 , N_2O with dilute HNO_3 and ammonium nitrate with very dilute HNO_3 . For example, Zn reacts as:

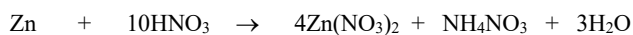
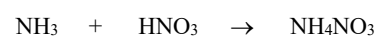
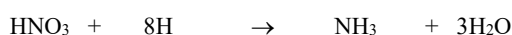
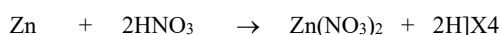
Using concentrated HNO_3 : (Forms nitrogen dioxide)



Using dilute nitric acid: (Forms nitrous oxide)

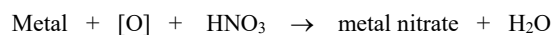
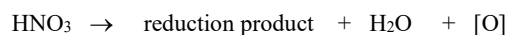


Using very dilute nitric acid: (Forms ammonium nitrate)



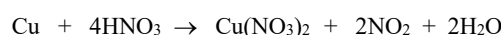
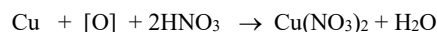
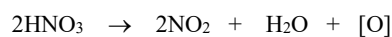
(ii) Metals which are less electropositive than hydrogen (Cu, Bi, Hg, Ag). Metals lying below

hydrogen in electrochemical series react with HNO_3 as: In this case nascent hydrogen is not liberated:

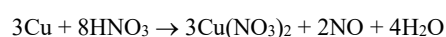
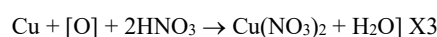


Reduction product is NO_2 with conc. HNO_3 and NO with dilute HNO_3 . For example:

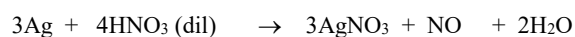
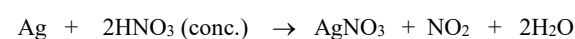
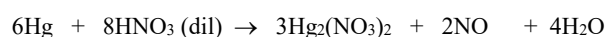
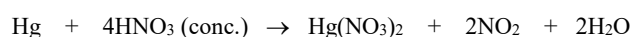
Using concentrated nitric acid: (Forms nitrogen dioxide)



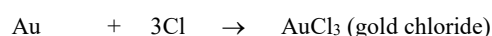
Using dilute nitric acid: (Forms nitric oxide)



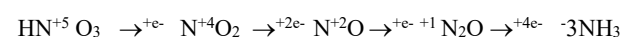
Similarly,



(iii) Action on noble metals: Noble metals like gold and platinum are attacked by nitric acid. However, these metals are attacked by aqua regia (3parts conc. HCl and 1part conc. HNO_3) forming their chlorides.

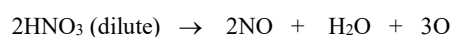
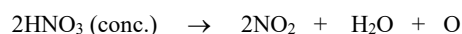


It may be noted that some metals such as chromium and aluminium do not dissolve in conc. HNO_3 because of the formation of a passive film of oxide on their surfaces. It may be noted that during chemical reactions of metals with HNO_3 , it not only acts as acid but also as an oxidizing agent. During its reaction, it gives a variety of reduction products. The different stages of reduction of nitric acid are:



The product of the reduction of HNO_3 depends upon the (a) nature of the metal (b) concentration of nitric acid (c) temperature. In general, the more the dilution the greater is the extent of reduction.

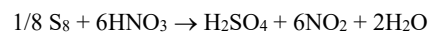
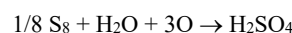
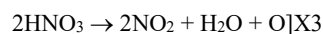
(3) Oxidizing nature: Nitric acid behaves as a strong oxidizing agent. It has a tendency to give nascent oxygen as:



Therefore, nitric acid oxidizes many non-metals and compounds.

(a) Oxidation of non-metals: Dilute nitric acid has no action on non-metals like carbon, sulphur and phosphorus etc. However, conc. HNO_3 oxidizes many non-metals. For example:

(i) sulphur to sulphuric acid:



or



(ii) carbon to carbonic acid:



(iii) phosphorus to phosphoric acid:



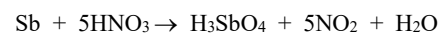
(iv) Iodine to iodic acid:



(v) Arsenic to arsenic acid:

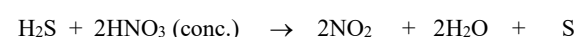
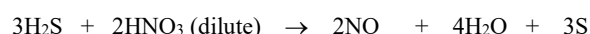


(vi) antimony to antimononic acid:

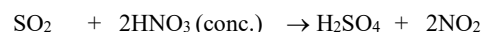


(b) Oxidation of compounds: Dilute as well as concentrated nitric acid oxidizes a number of compounds. For example:

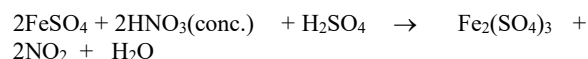
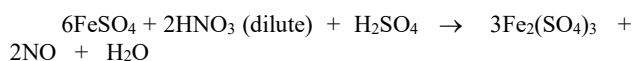
(i) Nitric acid oxidize hydrogen sulphide to sulphur.



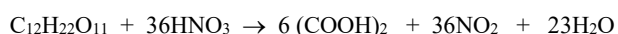
(ii) sulphur dioxide to sulphuric acid:



(iii) ferrous sulphate to ferric sulphate:

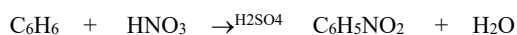


(4) Action on organic compounds: Nitric acid also reacts with organic compounds. For example: sucrose (cane sugar) is oxidized to oxalic acid by nitric acid.



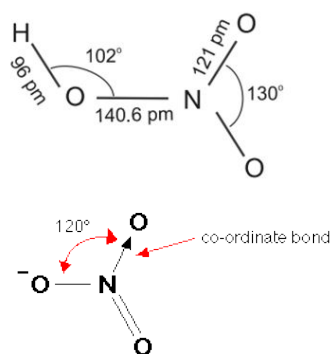
In the presence of H_2SO_4 , nitric acid reacts with aromatic compounds forming nitro compounds. This

process is called nitration. For example, it reacts with benzene to form nitrobenzene.

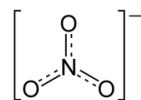
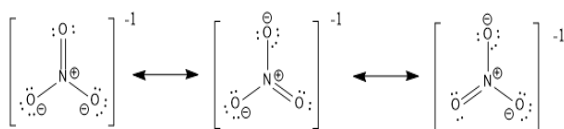


Similarly, phenol reacts with nitric acid in the presence of H_2SO_4 to give trinitrophenol (picric acid). Nitric acid attacks proteins giving a yellow nitro compound known as xanthoprotein. Therefore, nitric acid stains skin and renders wool yellow.

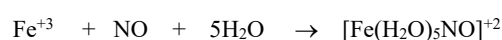
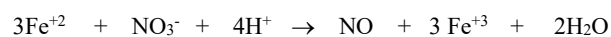
Structure: spectroscopic studies have shown that gaseous nitric acid has planar structure. Nitrate ion, NO_3^- has also planar symmetrical structure.



The structure of NO_3^- is resonance hybrid of following structures:



Brown ring test for NO_3^- ion: nitrates give brown ring test with Fe^{+2} ions in the presence of concentrated H_2SO_4 . This is based upon the tendency of Fe^{+2} to reduce nitrates to nitric oxide which reacts with Fe^{+3} to form a brown colored complex. The test is usually performed by adding dilute FeSO_4 solution to an aqueous solution containing NO_3^- ions and then adding conc. H_2SO_4 slowly along the sides of the test tube. A brown ring is formed at the interface between the solution and H_2SO_4 indicates the presence of NO_3^- ion.



(pentaqua nitrosyl iron (II) ion)

Uses of nitric acid:

- (i) it is used in the manufacture of ammonium nitrate for fertilizers. It is used in the manufacture of sulphuric acid by lead chamber process.
- (ii) It is used in the manufacture of explosives such as trinitrotoluene (TNT), nitroglycerine and picric acid etc.
- (iii) It is used in the manufacture of dyes, perfumes and silk. It is used in picking of stainless steel and etching of metals.
- (iv) It is also used in purification of gold and silver as aqua-regia.
- (v) It is used as an oxidizer in rocket fuels.

Assignment

- Yellow color of usual nitric acid is due to the presence of -----
(A) NO_2 (B) NO (C) N_2O (D) N_2O_5
- The reddish brown gas formed when nitric acid is oxidized by air. Brown gas is ---
(A) N_2O_5 (B) N_2O_4 (C) NO_2 (D) N_2O_3
- In NO_3^- the number of bond pairs and lone pairs of electron on N atom are---
(A) 2,2 (B) 3,1 (C) 1,3 (D) 4,0
- With nitric acid, hydrogen sulphide is oxidized to ---
(A) sulphur (B) sulphur trioxide (C) sulphur dioxide (D) sulphuric acid
- Concentration HNO_3 reacts with iodine to give -----
(A) HI (B) HIO (C) HIO_3 (D) HIO_4
- Nitric acid can be prepared from air by –
(A) Haber's process
(B) Ostwald's process
(C) Birkland-Eyde process
(D) lead chamber process
- Conc. HNO_3 is stored in containers of ---
(A) copper (B) zinc
(C) tin (D) aluminium

8. Conc. HNO_3 oxidizes cane sugar to -----
 (A) CO_2 and H_2O
 (B) CO and H_2O
 (C) CO , CO_2 and H_2O
 (D) oxalic acid and H_2O
9. Nitric acid (conc.) oxidizes phosphorus to -----
 (A) H_3PO_4 (B) P_2O_5
 (C) H_3PO_3 (D) $\text{H}_4\text{P}_2\text{O}_7$
10. The mixture of conc. HCl and conc. HNO_3 made in 3:1 ratio contains -----
 (A) ClO_2 (B) NOCl
 (C) NCl_3 (D) N_2O_4
11. When copper reacts with conc. HNO_3 gives -----
 (A) copper nitrate, nitrogen dioxide
 (B) copper nitrate, nitric oxide
 (C) copper nitrite, nitric oxide
 (D) copper nitrite, nitrogen dioxide.
12. What is the oxidation number of nitrogen in HNO_3 ?
 (A) +1 (B) +5 (C) +4 (D) -3
13. What does the abbreviation T.N.T. stand for?
 (A) trinitrotoluene (B) trinitrophenol
 (C) trinitrobenzene (D) none of these
14. What is the formula of the compound formed during ring test of nitrate radical?
 (A) $[\text{Fe}(\text{H}_2\text{O})_5\text{NO}]\text{SO}_4$
 (B) $[\text{Zn}(\text{H}_2\text{O})_2\text{NO}]\text{SO}_4$
 (C) $\text{C}_6\text{H}_5\text{NO}_2$
 (D) NOCl
15. What happen when sodium nitrate reacts with sulphuric acid (conc.) at 475K? Which is the main product?
- (A) NO_2 (B) HNO_3 (C) N_2O (D) NO
16. What are the products when zinc reacts with very dilute nitric acid?
 (A) zinc nitrate, nitrogen dioxide
 (B) zinc nitrate, nitrous oxide
 (C) zinc nitrate, ammonium nitrate
 (D) zinc nitrate, nitric oxide.
17. Nitric acid attacks protein giving a yellow nitro compound known as -----
 (A) xanthoprotein (B) picric acid
 (C) nitrobenzene (D) trinitrotoluene
18. Nitric acid behaves as a strong oxidizing agent because it has a tendency to give -----
 (A) nascent oxygen
 (B) nascent hydrogen
 (C) nascent nitrogen
 (D) none of these
19. The product of the reduction of HNO_3 depends upon the -----
 (A) nature of the metal
 (B) concentration of nitric acid
 (C) temperature
 (D) all of the above
20. The process in which nitric acid is prepared by the catalytic oxidation of ammonia by atmospheric oxygen known as -----
 (A) Haber's process (B) Ostwald's process
 (C) contact process (D) lead chamber process



11. (A) 12. (B) 13. (A) 14. (A) 15. (B) 16. (C) 17. (A) 18. (A) 19. (D) 20. (B)

ANSWERS



Author is M.Sc. (Chem.), M.Ed. and Advanced Diploma in German Language (Gold Medallist). She retired as a Principal, Govt. School Haryana, has 3-1/2 years' experience in teaching Chemistry and distance teaching through lectures on Radio and Videos. She has volunteered to complement mentoring of students for Chemistry through Online Web-enabled Classes of this initiative. e-Mail ID: kumud.bala@yahoo.com

SCIENCE QUIZ

Kumud Bala

1. What are the different ways in which water gets contaminated?
(A) people dispose of garbage in water and untreated sewage is directly discharged into water from household activities
(B) many industries discharge their harmful chemicals directly into rivers and streams
(C) chemical fertilizers, pesticides and weedicides used in agricultural practices get dissolve in water and washed away into water bodies from the fields
(D) all of the above
2. What are the measures that would help our town to ensure the supply of clean water to all its residents?
(A) chlorine tablets should be made available
(B) proper cleaning of water tank from time to time
(C) the water supply pipes should not come in contact with sewage pipes
(D) all the above.
3. The gas responsible for global warming is ----
(A) carbon monoxide
(B) carbon dioxide
(C) nitrogen dioxide
(D) sulphur dioxide
4. Ozone layer in the atmosphere is depleted by ----
(A) LPG (B) CFCs
(C) CNG (D) acid rain
5. Select the water-borne disease out of the following.
(A) cholera (B) tuberculosis
(C) dengue (D) malaria
6. High concentration of which gas will not cause air pollution?
(A) oxygen
(B) nitrogen dioxide
(C) carbon dioxide
(D) carbon monoxide
7. Water pollution is not caused by ----
(A) burning of fossil fuels
(B) bathing in ponds
(C) agricultural wastes
(D) industrial wastes
8. As an individual, what methods can we use to save water?
(A) we can avoid wastage of water and close the taps when water is not required
(B) reuse the water by recycling it
(C) repair the taps to prevent leakage
(D) all the above
9. By which ways water can be made safe for drinking?
(A) by filtering it
(B) by boiling the water to kill the germs
(C) by adding chlorine tablets or by passing ultraviolet rays through water
(D) all the above
10. How do industries contribute to air pollution?
(A) petroleum refineries release gaseous pollutants like sulphur dioxide and nitrogen dioxide
(B) power plants release sulphur dioxide due to burning of coal and giving out tiny ash particles
(C) both (A) AND (B)
(D) none of these
11. Air pollution can be reduced by taking following steps:
(A) use CNG or unleaded fuel for the vehicles
(B) by planting more trees and not burning dried leaves, instead putting them in a compost pit
(C) say no to crackers during festivals
(D) all of the above
12. What is meant by water harvesting?
(A) water harvesting means conservation of rain water
(B) it is done by allowing rain water, falling on the roofs of buildings, to flow into a deep trench in the ground. In this way the ground water level is increased
(C) both (A) and (B)
(D) the rain water is allowed to flow into the rivers.
13. What is cause of start of melting of Gangotri glacier?
(A) green house effect
(B) global warming
(C) chlorofluorocarbons

- (D) solid particulate matter
14. Which radiations are absorbed by CO₂?
(A) ultraviolet radiations
(B) infrared radiations
(C) cosmic rays
(D) violets rays
15. When was the Ganga action plan launched?
(A) in 1985 (B) in 1984
(C) in 1986 (D) in 1987
16. What is the function of ozone layer?
(A) ozone layer protects us from ultraviolet rays of the sun
(B) ozone layer protects us from infrared radiation
(C) ozone layer protects us from acid rain
(D) ozone layer protects us from green house effect.
17. The occasion of planting lakhs of trees in the month of July every year is known as -----
(A) forest conservation day
(B) plantation month
(C) van mahotsava
(D) wildlife week
18. Which of the following is not a green house gas?
(A) nitrogen (B) methane
(C) water vapour (D) carbon dioxide
19. The amount of oxygen in the earth's atmosphere is -----
(A) 78% (B) 21%
(C) 0.01% (D) 3%
20. Agents that pollute water, soil and air is known as -----
(A) pollutants (B) waste
(C) effluent (D) garbage
21. Water suitable for drinking is known as -----
(A) impure water (B) pure water
(C) potable water (D) safe water
22. The gradual increase in the average temperature of earth's atmosphere is known as -----
(A) acid rain
(B) global warming
(C) deforestation
- (D) none of these
23. Which one of the following is mainly responsible for green house effect?
(A) SO₂ (B) CO₂
(C) CO (D) O₂
24. Green house effect with respect to global climate refers to -----
(A) cooling and moist condition
(B) warming effect
(C) increase rain fall and greenery
(D) desertification
25. Which one of the following pairs of gases is the major cause of green house effect?
(A) CO₂ and CO (B) CFCs and SO₂
(C) CO₂ and N₂O (D) CO₂ and O₃
26. Biological pollution in water is caused by -----
(A) coal mines
(B) domestic sewage and animal excreta
(C) oil spills
(D) chemicals like paints
27. A pond contains clean water. Which of the following activities will produce least pollution of water?
(A) washing clothes in the pond
(B) bathing animals in the pond
(C) washing motor vehicles in the pond
(D) swimming in the pond.
28. Acid rain contains -----
(A) SO₂ and NO₂ (B) NO₂
(C) O₃ (D) CO
29. Which of the following gases does not cause acid rain?
(A) SO₂ (B) methane
(C) nitrous oxide (D) none of these
30. The components of air which are harmful to living beings are -----
(A) nitrogen and carbon dioxide
(B) dust and water vapour
(C) dust and smoke
(D) smoke and water vapour
31. Green house effect is due to the presence of -----

- (A) ozone layer in the atmosphere
(B) infrared light reaching the earth
(C) moisture layer in the atmosphere
(D) CO₂ layer in the atmosphere.
32. Air is mixture of various gases. One of the gases is 21% part of the air and is essential for the survival of human beings. This gas is ----
(A) nitrogen (B) oxygen
(C) ozone (D) argon
33. The phenomenon of 'marble cancer' is due to ----
-
(A) soot particles (B) CFCs
(C) fog (D) acid rain
34. The Kyoto protocol is associated with one of the following. This one is ----
(A) reduction in the use of chlorofluorocarbons
(B) reduction in the emission of greenhouse gases
(C) reduction in the cutting of forest trees
(D) reduction in pollution of fresh water sources
35. Which of the following will be reduced in air in a city forest when a lot of dust and fly ash is emitted by a coal-based factory in the vicinity?
(A) nitrogen (B) carbon dioxide
(C) oxygen (D) water vapour
36. Which of the following disease cannot be caused by drinking of river contaminated water with untreated sewage?
(A) cholera (B) typhoid
(C) tuberculosis (D) diarrhea
37. Which of the following statement about ozone is correct?
(A) it is essential for breathing
(B) it absorbs ultraviolet rays
(C) its proportion in air is about 3%
(D) it is mainly responsible for global warming.
38. Which of the following is usually not a water pollutant?
(A) sewage (B) fertilizer
(C) fly ash (D) pesticide
39. Which of the following are used in electric water filters to kill all the harmful microorganisms present in tap water and make it absolutely safe for drinking?
(A) infrared radiation
(B) gamma radiation
(C) visible radiation
(D) ultraviolet radiation
40. Which of the following air pollutant is capable of preventing photosynthesis in plants?
(A) CFCs (B) nitrogen dioxide
(C) dust (D) carbon dioxide
41. The farmers use large amounts of substance 'W' in the field to increase the crop yield. The excess of 'W' dissolves in water and runs into a lake. The substance 'W' causes rapid growth of tiny green water plants 'X' in the lake which cover the whole lake like a green sheet. When the plants 'X' die, the organism called 'Y' decompose them by utilizing 'Z' dissolved in lake water. The amount of dissolved 'Z' in water decreases too much due to which the fish living in lake suffocate and die. What are W, X, Y, and Z?
(A) W= fertilizer, X= algae, Y= bacteria, Z= oxygen
(B) W= algae, X= fertilizer, Y= bacteria, Z= oxygen
(C) W= bacteria, X= algae, Y= oxygen, Z= fertilizer
(D) W= oxygen, X= bacteria, Y= algae, Z= fertilizer
42. The incomplete combustion of firewood in homes produces a very poisonous gas 'P'. When inhaled gas 'P' combines with the substance 'Q' present in blood and reduces the capacity of blood to carry gas 'R' causing respiratory problems and suffocation. What are P, Q and R?
(A) P= oxygen, Q= carbon monoxide, R= hemoglobin
(B) P= carbon monoxide, Q= hemoglobin, R= oxygen
(C) P= hemoglobin, Q= carbon monoxide, R= oxygen
(D) P= carbon monoxide, Q= oxygen, R= hemoglobin
43. At many places the waste water containing human excreta from homes and carried in big underground

pipes is dumped into a river as such which polluted the river water. What are the human diseases caused by drinking river water contaminated with such waste water?

- (A) cholera, typhoid, dysentery, jaundice
- (B) dengue, tuberculosis, diarrhea, jaundice
- (C) malaria, dengue, diarrhea, jaundice
- (D) typhoid, malaria, diarrhea, dengue.

44. Which of the following will reach the earth in greater amounts if the chlorofluorocarbons released into the air increases?

- (A) infrared rays
- (B) x-rays

- (C) gamma rays
- (D) ultraviolet rays

45. Why hot water released by power plants and industries into rivers is considered a pollutant?

- (A) because it raises the temperature of the water body and adversely affects the plants and animals living in it
- (B) temperature of the water body will remain same What is meant by water harvesting?
- (C) it increased the level of nutrients in the water body and it does not affect the survival of aquatic organisms
- (D) none of these

(Answers to this Science Quiz shall be provided in Monthly e-Bulletin)

—00—



Theme Song :

PREMISE: We are pleased to adopt a song “ इतनी शक्ति हमें देना दाता.....” from a old Hindi Movie *Do Aankhen Barah Haath* दो आँखें बारह हाथ of year 1957, directed by The Late V. Shantaram. The lyrics are by Shri Bharat Vyas, singer Melody Queen Sushri Lata Mangeshkar, and Music Direction by Vasant Desai. It has become a widely accepted inspirational song and/or prayer in many educational institutions and socially inspired initiatives engaged in mentoring of unprivileged children. This newly formed non-organizational initiative, being selflessly operated by a small set of compassionate persons, finds its philosophy in tune with the song and conveys its gratitude to all the eminent persons who brought out the song in a manner that it has attained an epitome of popularity. While working its mission and passion, the group invites one and all to collectively complement in grooming competence to compete among unprivileged children. The song/prayer goes as under -

इतनी शक्ति हमें देना दाता, मन का विश्वास कमजोर होना
हम चले नेक रस्ते पे हम से, भूलकर भी कोई भूल होना ॥

दूर अज्ञान के हो अंधेरे, तू हमें ज्ञान की रोशनी दे
हर बुराई से बचते रहें हम, जितनी भी दे भली ज़िन्दगी दे
बैर होना किसी का किसी से, भावना मन में बदले की होना ॥

इतनी शक्ति हमें देना दाता, मन का विश्वास कमजोर होना
हम चले नेक रस्ते पे हम से, भूलकर भी कोई भूल होना ॥

हमना सोचें हमें क्या मिला है, हम ये सोचे किया क्या है अर्पण
फूल खुशियों के बाँटे सभी को, सबका जीवन ही बन जाए मधुबन
अपनी करुणा का जल तू बहा के, कर दे पावन हर एक मन का कोना ॥

इतनी शक्ति हमें देना दाता, मन का विश्वास कमजोर होना
हम चले नेक रस्ते पे हम से, भूलकर भी कोई भूल होना ॥



**Together Each Achieves More
(TEAM)**

*Every end, so also end of this e-Bulletin, is a pause for a review, before
Resuming of the journey far beyond ...*