

INTEGRATING THE CONCEPTS OF SCIENCE & MATH WITH ANCIENT HINDU LITERATURE

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ABSTRACT

The ancient Indian literature is the powerhouse of knowledge whether in the means of scientific and philosophical knowledge. The Bhagavad Gita discusses and Guides us to reach the goals of life in the form of knowledge devotion and action. This literature contains various information about particular scientific topics which are directly or indirectly related with the Indian scriptures. The resemblance with modern physics shows the utility of this knowledge. These ideas of Physics are carried out through our research based on the various data collected from old Hindu scriptures mainly from the literature of Bhagavad Gita.

1. INTRODUCTION

Hinduism is a faith as well as a way of life a world view and to philosophy holding the principles of and true living for the Indian despora throughout the world Indians are unknown with the facts and the relation between science and the Hindu scriptures. It is also important to get them aware from these things and our paper has proceeded to research upon that how science is related to our Hindi scriptures or how we can delete it with Hindu scriptures (Bhagavad Gita, Ramayana, Mahabharata).

Why we preceded with this research only? We researched upon this as it is very much important to tell the world that our Hindu scriptures are this much knowledgeable that the things scientist and doctors uses their concepts are pre-existing nothing is new.

We have actually research on how we can relate the formulas and concepts of Physics, some of the concepts of Biology, existence of human being, as well as revolution of human being, facts of the world relating all Vedas with science, importance of number 7 and 9, existence of god and demon in different yugs, formation of Earth, change in mind sets of people and some of the psychological facts which can be related to Hindi scriptures and many more relations are there which you will get to know further in our research paper. As we have already discuss that every single rituals of the Hinduism comes with a scientific knowledge and could not be viewed as the orthodoxy nature amenating from some Pre-historic ages. this itself the states The parallel temples between the scientific revolution of the modern day physics with those of Hindu texts.

2. LITERATURE SURVEY

"Bhagwad Gita- the timeless science" states that Bhagavad Gita is a complete science of both spirit and matter. The book is the answer of all the questions a human being can ask. Bhagavad Gita is timeless. God created us and give us freedom but at the same time if we create something we never wanted to Revolt against us. That's the difference between God and us now it's up to us that to accept the God or to reject him. Lord Krishna is the master, he is just known by different names like Allah, Jehovah, God etc.

Mr. Arvind Krishna Mandal in his research paper Physics in ancient India: an introspective study says that today's development and advancement of Science and technology is based on our ancient Indian scriptures. Other scientist from

different countries when started reading are scriptures, they invented when a new thing then why are we lagging. we can definitely get the highest position of development in all respects, with the help of our old scriptures.

The striking parallels between ancient Hinduism and modern physics by Deep Bhattacharjee states that Hinduism ideology has found a place in the realism of modern physics and the mechanics. taking these ideologies from Hindu scriptures into consideration and advanced with the fluid notion of the rational thinking of the early Hindus will open a door wave for the eternal truth and find solution and beauty is in the philosophies of the nature.

'Shrimad Bhagwat Gita and Physics' by Dr rajou Kumar Pandita release date Bhagavad Gita which was told by Lord Krishna to Arjun a 5000 years back with the laws of Physics, Yoga, meditation, creation and end of Universe this states that the science discovered now was discovered 5000 years back by Lord Krishna

Dr. S.R. Verma in his physics: an integral part of Vedic wisdom also relates the scriptures with the science. It says that no modern sophisticated science facilities were not available years back, but surprisingly in ancient time people discovered many things.

O.S.K.S. Shastri in a parallel between Bhagavad Gita slokas and Newton's laws of motion delays the Bhagavad Gita with the Newton's laws.

Nikhil Malik in 'physics in context of Indian literature' says that rest of the world is continuously developing their countries then why are we lagging behind when we have the original data, we must utilise it

3. CONCEPT INTEGRATION

Example-1-

SCIENCE IN HANUMAN CHALISA

Shri Hanuman Chalisa which was written by Tulsidas ji in 16th century. He has told us a huge fact of calculation of distance between earth and sun in Hanuman Chalisa.

That couplet is "Yug Sahastra Jojan par Bhanu"

Calculation

1 yug = 12000 years

1 sahastra = 1000 years

1 yojan = 8 miles

Multiplying all $12000 * 1000 * 8 = 9,60,00,000$ miles (9 cr. 60 lakhs)

1 mile = 1.6 km

$9,60,00,000 * 1.6 = 15,36,00,000$ miles

Example 2-

Concept- In Mahabharata, there was an event of SWAYAMVAR of Draupadi Ji. There was a situation given to everyone that a dead fish was tied up on the branch of tree and it was said to just see the reflection of it's eye on the water/oil and to aim the arrow without seeing upwards. It was successfully achieved or done by Arjuna.

Relation- We can relate this with the laws of reflection especially the 2nd law of reflection (incident ray = reflected ray).

Example 3 -

Concept- In Ramayana, when Ravana came to kidnap Sita Mata, Maarich was in the disguise of Golden Deer and Ram Ji was gone to catch it as Sita Mata was attracted to it. It was unknown to Ram Ji that, that deer was not real. When, it was to be killed Maarich called Laxman in the voice of Ram Ji and Sita Mata heard his voice calling Laxman from a far distance also.

Relation- When a sound travels, frequency reduces as the distance increases. And a "normal" hearing frequency is upto 20 hertz to 20,000 hertz.

Example 4 -

Concept- In Mahabharata, it is mentioned there that when Abhimanyu use to think to do something, he never ever turned back in his whole life.

Relation- It is directly related to psychology, a strong mindset of a person to decide something and make it happen at any cost, it shows one's mental toughness.

Example 5-

Concept- The Bramhastra is an astra given in Hindu scriptures which can destroy the whole universe in a couple of seconds.

Relation- We can take today's nuclear bomb as a very small unit of brahmastra which can destroy any of the city in a couple of seconds.

Example 6-

Concept- Laxman Rekha which was made by Laxman for the protection of Sita Mata when Maarich called him in the voice of Ram Ji and Sita Ji told him to go and help Ram Ji. No one can pass through that Rekha except Sita Ji.

Relation- We can relate this with land mine bomb which are in the borders so that no one can pass through it otherwise it will burst off.

Example 7-

Concept- In Mahabharata, Dhritarashtra and Gandhari gave birth to 100 baby's known as Kaurav. "Foetus" from Gandhari's body was taken out and was divided into hundred pieces and was putted in individual containers. And has been grown and developed outside the body of Gandhari.

Relation- We can relate it with in Vitro Fertilisation (IVF) process used in current days to develop a test tube baby.

Example 8-

Concept - Flying machine in the time of Ram Ji called as Pushpalk Viman, how it accelerates and how it uses to fly in that time.

Relation - We can relate this or find the fact behind by studying it's aero-dynamics and finding the condition of the climates when it use to fly.

Example 9 -

Concept- How the rocks of RamSetu are floating on water and not going under the water like other rocks use to?

Relation - We know that the rocks which are used to make RamSetu are porous rocks which have pores on it so that air can pass through and because of this only they are floating nowadays also.

Example 10-

Concept - In Mahabharata, in Yuddh when Arjuna use to leave an arrow to Karn's chariot, his chariot would sway and be pushed back by 25-30 feet. But, Arjuna's chariot being protected by Lord Shri Hanuman sitting on the top on the flag, Lord Shri Krishna himself being charioteer and having Sheshnaag on it's wheels, even after that when Karn use to leave his arrow on Arjuna's chariot, his chariot would sway and be pushed back by 3-4 feet.

Relation- By using this fact and the formula of conservation of momentum, we can find out the force of Karn's arrow that it can push back this much powerfull chariot which is protected by Lord Shri

Hanuman, Lord Shri Krishna and Sheshnaag.

Table 1 – Relation of Human Evolution according to ancient literature and science

According To Hindu Scriptures	Revolution of Human According to science
Matsya Avatar(Fish)	First vertebrate on this earth was jawless fish
Kurma Avatar(Tortoise)also related toDinosaurs	Organisms came out of water to become reptiles
Varah Avatar(Boar)	A mammal which comes after reptiles, a creature who walks on the earth
Narsimha Avatar(Lion's head and Human'sbody)	Shows the transition between the apes and humans
Vamana Avatar(Dwarf peoples)	Homo Floresiensis because of the dwarfedheight. Complete transformation from animals to humans and start of intelligence in humans
Parshurama Avatar(Parshu=Axe)	Early stone age man. Stone-age tool=Axe

Example-11

Concept- Relation of energy with soul.

Relation- “Energy neither be created and not be destroyed” it’s as it is for soul of any of the living body, that “Soul neither be created and not be destroyed”.

Example -12

Concept- Around 27 to 29 weeks of pregnancy. The unborn child can listen can listen to the voiceof a person who is speaking outside.

Relation - Abhimanyu during Subhadra’s pregnancy. he was listening to the concept of going inand coming out of the chakravayu told by shri. Krishna Ji from the wombitself.

Exmample 13-

Concept- Convex lens

Relation- Maya shakti of gods in both Ramayana and Mahabharata is the energy of making several illusionary images or shadows to confuse and we know the convex lens only use to form.

Example 14-

Concept - Sanjeevni booti

Relation - In Ramayana it’s given when Indrajeet hurts Laxman Ji with his energies so hunuman Ji came with a mountain full of these sanjeevni booti and it is already said that, that booti consist of many helpful medicines.

Example 15-

Concept- Amniotic sac in the womb use to maintain the temperature to protect the baby.

Relation- Parikshit son of Abhimanyu was tried to be killed in the womb itself by sending a unit of

brahmastra in the womb but Krishna Ji does the work of Amniotic sac at that time and maintained the temperature so that the baby was saved.

Example 16-

Height variation according to the evolution of humans

Relation - Bhishm who was one of the Pandavas was the tallest (70 feet) of that dwaparyug but now a days maximum height of a human being is 6 feet only. This shows the variations on the height of an individual.

Example 17-

Concept - Point at which the arrows were shouted.

Relation - Draunacharya saw a dog whose mouth was full of arrows. But it was not at all bleeding and that dog was still alive. And that arrows were thrown by veer only.

Example 18-

Concept - Krishna's capability of playing flute.

Relation - We can relate that how must it was older and how much power Krishna ji was having when he use to play the flute all the animals from small to big all the peoples walking behind or beside use to come to him for listening his flute talent.

Example 19-

Concept- Nothing is permanent in the world.

Relation- For example, Krishna ji was also had to exit or leave his soul from the universe.

Example 20-
Concept- The strongest but flammable bhavan of that time.

Relation- Duryodhan built a bhavan for Pandavas made up of Laakh which can be melt easily and derived into any of the shape but that bhavan was very strongest one it was not flexible but it can be easily burnt.

Example 21-

Concept-

Arthaveda	=	dealing with state craft(religion)
Ayurveda	=	medicines and health
Dhanur veda	=	military science
Gandarva veda	=	music and arts
Sapatya veda	=	architecture

Relation - Advanced architecture

Voice controlled weapons

Example 22-
Concept - IMPORTANCE of no. "7"

Relation -i) picture of 7 horses considered auspicious.

7 continents.

7 rainbow colours.

7 primary colours.

7 is a prime number

7 horses in chariot of Surya Dev.

God Yama comes in the number seven (no. of death).

7 rounds for marrieges.

7 lives of a human being.

7 seas.

7 days in a week.

7 Lokas.

Example 23-

Concept - Existence of god and demon on the earth in different yugas.

Relation -

Satyug - God (heaven) demon (underworld)

Tretayug - God and demon both lived on the same Lok (Prithvi).

Dwaparyug - God and people having the mindset of demon.

Kalyug- Mindset of both god and demon on a single human.

Example 24 -

How many years ago formation of earth started?

How many years ago when there were no animals on the land(earth)?The Answer is related to the BIG BANG theory

Formation of universe started 13.8 Billion years ago (13,800,000,000 Years ago) Age of Earth = Billion years old (4,540,000,000 Years Old)

Sum of Years of All for Yugas

Satyug = 17,28,000 Years Treta Yug = 12,96,000 YearsDwaparyug = 8,64,000 Years

Kalyug = is of 4,32,000 years in which we have completed around 5124 Years

Total Years Cumulative = 3,893,124 Years

Formation of Years of Universe – Formation of Years of Earth = Start of Formation of Earth i.e,13.8 – 4.54 = 9.26 Billion Years ago (9,260,000,000 Years)

No. of Years of Earth – Total Time of all four Yugas = 0

EXISTENCE OF ANIMALS

4,540,000,000 – 3,893,124 = 4,536,106,876 YEARS AGO

Example 25 –

The method of “squaring a circle” in Boudhayana Shulvashutra “If you wish to square a circle, divide its diameter into eight parts; then divide one part into twenty-nine parts and leave out twenty-eight of these; and also the sixth part (of the preceding sub-division) less the eighth part (of the last).” According to this prescription, the side of the square will be

$$a = \frac{7d}{8} + \frac{d}{8} \left(1 - \frac{28}{29} + \left\{ \frac{1}{6} \left[1 - \frac{1}{8} \right] \right\} \right) = 0.87868 \times d$$

Now we know that the area of the square is a^2 and that of the circle is $\pi r^2 = \pi d^2 / 4$.

As per modern calculation, the value of a should be $0.8862 \times d$, and thus their prescription was reasonably good.

Example 26-

Planetary knowledge-

The Vedic planetary model is given in Figure 1. The sun was taken to be midway in the skies. A considerable amount of Vedic mythology regarding the struggle between the demons and the gods is a metaphorical retelling of the motions of Venus and Mars (Frawley 1994). The famous myth of Vishnu’s three strides measuring the universe becomes intelligible when we note that early texts equate Vishnu and Mercury. The myth appears to celebrate the first measurement of the period of

Mercury (Kak 1996a) since three periods equals the number assigned in altar ritual to the heavens. Other arguments suggest that the Vedic people knew the periods of the five classical planets.

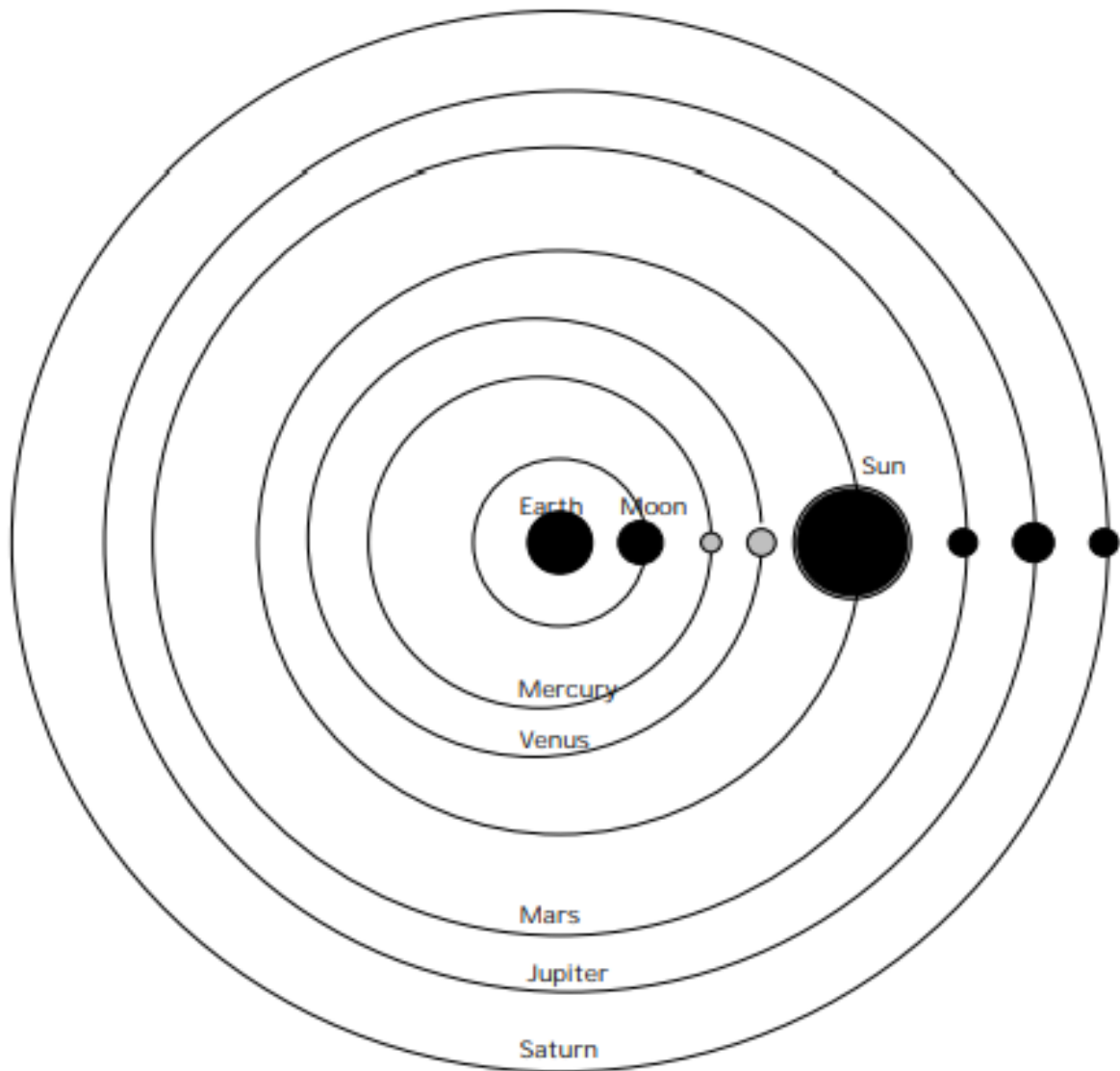


Figure 1 – The Vedic Planetary Body

Example 27-
Binary numbers

Barend van Nooten (1993) has shown that binary numbers were known at the time of Pingala's Chhandahshastra. Pingala, who lived around the early first century B.C.E., used binary numbers to classify Vedic meters. The knowledge of binary numbers indicates a deep understanding of arithmetic. A binary representation requires the use of only two symbols, rather than the ten required in the usual decimal representation, and it has now become the basis of information storage in terms of sequences of 0s and 1s in modern-day computers.

Example 28-
Shivling as Nuclear Reactor

Jyotirlingas are the divine places of Lord Shiva where he is believed to be residing in different forms. The word 'Jyoti' means light, which is also called 'radiance', and lingam or linga means 'sign' or 'image' - Jyotir-linga means 'Radiant signs of Lord Shiva'. Pick up India's Radio Activity Map and you will be surprised to know that apart from the nuclear reactor of the government of India, the highest radiation is found in the places of all Jyotirlingas. The design of Bhabha Atomic Reactor is also like Shivling. Some believe that Shivling is nothing but nuclear reactors, that's why they are offered water so that they may remain calm. All the favourite substances of Mahadev such as Bilv Patra, Aakamad, Dhatura, Gudhal etc. are all nuclear energy soaking.



Figure 2 – 12 Jyotirlingas of India

There are many more theories to prove the point. Lord Shiva is often depicted as performing a special form of dance called the Tandav Nritya or the Cosmic Dance. No other symbol or construction could come closer to the construction of a nuclear reactor than the Shivling.

The Shivaling is made up of 2 parts – a cylindrical structure made of smooth black stone and the grooves around the cylinder with a characteristic spout. A pot of water hanging above resembles the water needed to cool down the reactor as it heats up during the energy generation process. This water flows out through the spout of the grooves circling the cylinder.

Now if you see the Shiva linga and today's nuclear reactor, the shape is very identical. The base which is considered to be the Yoni, also looks like the water base around a nuclear reactor. Figure 3.

So, is the Shiva linga is actually the source of huge energy like the nuclear reactor? Also, destruction can occur through an uncontrolled nuclear reaction like in a nuclear bomb which might depict Lord Shiva as the destroyer.

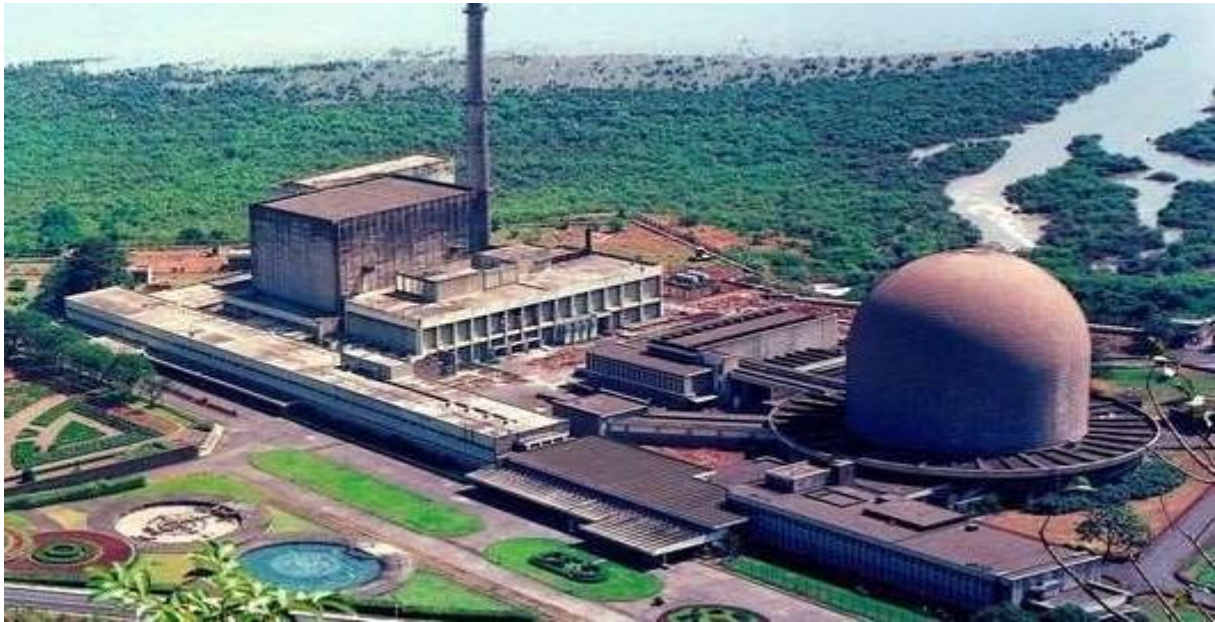


Figure 3 - Top View of Modern Nuclear Reactor

Only in Shiva's temple, this water is not consumed as tirtha (holy water), as it is believed to be polluted with radiations and nuclear waste, and also, no one is allowed to cross the spout during the Pradakshina (Parikrama).

It is also believed that when a scientific neutraliser, Gharund, is placed at the water outlet and the waste water channelled through it, devotees are free to cross the waste water channel to complete the round.

This clearly points to the fact that ancient Hindus had devised a scientific gadget by which they could neutralize the atomic waste.

Shiva Temples are always built near water bodies and it is the same conditions applied for a Nuclear Plant.

People who tried to climb Kailash mountain, reported that they felt an extreme energy coming out of the mountain. Also they claimed to have seen UFOs and that the Kailash mountain might be man-made as the shape is like a pyramid. Kailash is the place where Lord Shiva is considered to reside.

Some believe that Shivling is nothing but nuclear reactors, that's why they are offered water so that they may remain calm. All the favourite substances of Mahadev such as Bilv Patra, Aakamad, Dhatura, Gudhal etc. are all nuclear energy soaking.

Shiva is considered to be source of extreme energy or power. In mythology, if Shiva gets angry, destruction will occur and so it has also been a ritual to pour water on Shiva linga and get His blessings.

If you breakdown an atom, you find protons, neutrons and electrons. The electrons are free and orbit around the nucleus which consists of the protons and neutrons. It has been found that the creation occurred by positively charged matter and we can relate as Brahma to be part of proton, Vishnu to be

part of neutron and Shiva to be part of electron. Also, the electrons can be separated easily. Again in the Hindu Shastra, we see that Shiva's blessings can be attained more easily as compared to Brahma's or Vishnu's. In Ramayana, we can see that Ravana got Shiva's blessings after meditating.

There is radiation from Lingam as it is made out of a type of granite stone. Granite is a source of radiation and reported to have higher radio activity thereby raising some concerns about their safety. Granite is said to have formed as lava or molten rock cooled and solidified over thousands or even millions of years, contain naturally occurring radioactive elements like radium, uranium and thorium. Perhaps this is the reason that ancient Hindu sages advised their disciples not to touch water that is poured down on the Lingam. The sages were aware that there will be radiation fall-out if some accidents occur and that is the reason that Shiva Temples were built close to the vicinity of sea, ponds, rivers, tanks or wells.

4. CONCLUSION

Need for imparting ancient values into today's education system has been recognized, mainly because there are many lacunae that are not addressed by the modern education system. Holistic development of personality is what is being desired for and not mere development of certain specialized skills. Also our ancient literature is having deep and rich knowledge of Math and Science which should be taught to our students with integration of the same while delivering subject lectures. Integrating the concepts given by ancient literature with modern teaching methodology will help us to have development in spiritual aspect which is the fifth pillar of holistic development (In Panchkosha Vikas) of the student as per NEP 2020.

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