Sri - Om VEDIC MATHEMATICS AWARENESS YEAR

E-Newsletter Issue no 12 dated 18-10-2014

'Credit goes to Swami Bharti Krshna Tirtha Ji Maharaj to focus the attention of present generation about the values of Ganita Sutras (mental Mathematics Sutras)'

All are invited to join Awareness program

All are warmly invited to join the awareness program of Vedic Mathematics. All teachers, parents and students are invited to Learn and Teach Vedic Mathematics for proper intelligence growth School.

> Dr. S. K. Kapoor Sh. Rakesh Bhatia Sh. Bhim Sein Khanna Sh. Deepak Girdhar - Organizers

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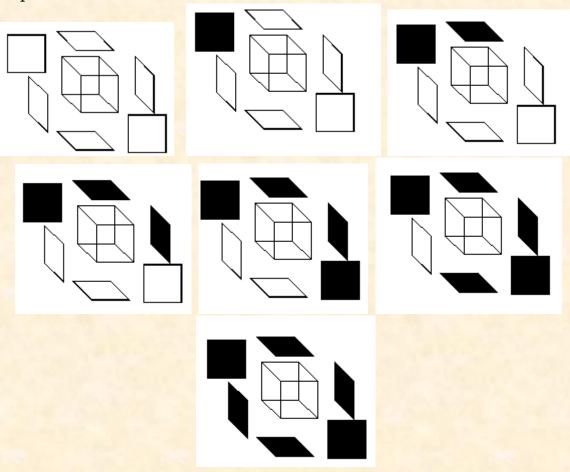
information visit at

www.vedicganita.org

Intelligence Growth Second phase Completeness and incompletness

- 1. Completeness and incompleteness is the concept which deserve to be very gently exposed to young minds with the help of a line by striking out one of its point making a split for the line.
- 2. It should be emphasized as that even the single point of the line by its (removal) makes absence of the completeness line and incomplete one.
- 3. It is this difference of single point which makes the completeness, and incomplete.
- 4. The void created by single point absence matters for the completeness / fullness of the line.
- 5. Like that the concept of completeness incompleteness and can demonstrated by removal of a threat (line) from cloth (sheet) / surface.
- 6. The split of solid / cube with / in terms of the 'inbetween surface' would be another demonstration of completeness (vis-à-vis) incompleteness.
- 7. Close interval (interval with its both ends point intact as a complete set up will lead to incomplete set up by removal of even one of the end points of the interval which shall be making close interval into half close interval.

- 8. The concept of 'completeness and incompleteness', in reference to interval as above, that way shall be leading to three versions of interval namely (i) close interval with its both end point intact, (ii) half closed interval with its only one end point intact, and (iii) open interval with its both end points missing.
- 9. The open interval, will permit its split into a pair of intervals, with one of them being the open interval and other being half closed / half open interval.
- 10. The concept can be demonstrated further in respect of surfaces /squares by demonstrated that there would be five versions of square namely (i) square with all the four boundary lines intact (ii) square with only three boundary lines intact (iii) square with only two boundary lines intact (iv) square with only one boundary line intact and (v) square with its all the boundary lines missing.
- 11. The presence of end points of an interval and of boundary lines of square, as such be taken as the signatures (presence of boundary components and in terms thereof the concept of version of square / geometry of 2-space may be introduced.
- 12.A step ahead the concept may be further demonstrated in reference to the set up of the cube being of 7 versions of 7 three space geometries of 6, 5, 4, 3, 2, 1, 0 versions / presence of the surface plates of the cube.



Ganita Sutra 8

पूरणापूरणाभ्याम् ।

By the completion or non-completion

- i. Read the text of the Sutra.
- ii. Pronounce the text Loudly.
- iii. Sequentially tabulate the letters of the text.

	1	2	3	4	5	6	7	8	9	10
	٦	ऊ	र्	अ	ण्	आ	प्	ક	र्	अ
1	1	12	13	14	15	16				
τ	ग्	आ	भ्	य्	आ	म्				

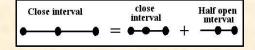
iv. Chase the different words formed by sequential combinations of letters, as,

letters								
1	2	3	4	5	5 6			
प्	ऊ	र्	अ	ण्	अ (+ अ)			
Word पूरण (full/complete)								
letters								
1	1 2 3 4 5 6 7							
अ प् ऊ र अ ण् अ								
Word आपूरण (incomplete)								

v. Reach at the working rule of Sutra.

'By completeness and incompleteness'

CLOSED INTERVAL AS OF TWO PARTS



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18-10-2014

Dr. S. K. Kapoor,
(Ved Ratan)

QUERIES ABOUT VEDIC MATHEMATICS

- 1. Many queries are being made as to the intellectual and academic attainments of Swami Bharti Krshna TirthaJi Maharaj.
- 2. We hereby reproduce the most valuable write up by Ms. Manjula TriVedi, disciple of Swamiji, under the title 'My beloved Gurudev' published by in the source book of Vedic Mathematics titled 'Vedic Mathematics' by Swamiji by Motilal Banarasi Dass, New Delhi.

Sh. Bhim Sein Khanna Sh. Deepak Girdhar - Organizers

"MY BELOVED GURUDEVA

SRI BHARATI KRSNA TIRTHA

[In the lines that follow the writer gives a short biographical sketch of the illustrious author of Vedic Mathematics and a short account of the genesis of his work based on intimate personal knowledge . --EDITOR]

Very few persons can there be amongst the cultured people of India who have not heart about HIS HOLINESS JAGADGURU SANKARACARYA SRI BHARTI KRSNA TIRTHAJI MAHARAJA the magnificent and divine personality that gracefully adorned the famous Govardhan Math, Puri, his vast and versatile learning, his spiritual and education attainments, his wonderful research achievements in the filed of Vedic Mathematics and his consecration of all these qualifications to service of humanity as such.

His Holiness, better known among his disciples by the beloved name 'Jagadguruji' or 'Gurudeva', was bon of highly learned and pious parents in March, 1884. His father, late Sri P.Narasimha Shastri, was then in service as a Tehsildar at Tinnivelly (Madras Presidency) who later retired as a Depuy Collector. His uncle, later Sri Chandrashekhar Shastri, was the Principal of the Mahraj's College, Viziangaram and his great-grandfather was later Justice C.Ranganath Shastri of the Madras High Court.

Jagadguruji, named as Venkatraman in his early days, was an exceptionally brilliant student and invariably won the first place in all the subjects in all the classes throughout his educational career. During his school days, he was a student of National College, Trichanapalli, Church Missionary Society College, Tinnivelli and Hindu College, Tinnivelli. He passed his matriculation examination from the Madras University in January, 1899, topping the list as usual.

He was extraordinary proficient in Sanskrit and oratory and on account of this he was awarded the title of 'Saraswati' by the Madras Sanskrit Association in July, 1899 when he was still in his 16th year. One cannot fail to mention at this stage the profound impression left on him by his Sanskrit Guru Sri Vedam Venkatrai Shastri whom Jagadguruji always remembered with deepest love, reverence and gratitude, with tears in his eyes.

After winning the highest place in the B.A. Examination, Sri Venkatraman Saraswati appeared at the M.A. Examination of the American College of Sciences, Rochester, New York, from Bombay Center in 1903; and in 1904 at the age of just twenty he passed M.A. Examination in seven subjects simultaneously securing the highest honours in all, which is perhaps the all-time world-record of academic brilliance. His subjects included Sanskrit, Philosophy, English, Mathematics, History and Science.

As a student Venkatraman was marked for his splendid brilliance, superb retentive memory and ever-insatiable curiosity. He would deluge his teachers with myriads of piercing questions which made them uneasy and forced them frequently to make a frank confession of ignorance on their part. In this respect, he was considered to be a terribly mischievous student.

Even from his University days Sri Venkatraman Saraswati had started contributing learned articles of religion, philosophy, sociology, history, politics, literature etc., to late W.T. Stead's "Review of Reviews" and he was specially interested in all the branches of modern science. In fact study of the latest researches and discoveries in modern science continued to be Sri Jagadguruji's hobby till his very last days.

Sri Venkatraman started his public life under the guidance of late Hon'ble Sri Gopal Krishna Gokhale, C.I.E. in 1905 in connection with the National Education Movement and the South African Indian issue. Although, however, on the one hand, Prof. Venkatraman Saraswati had acquired an endless fund of learning and his desire to learn ever more was still unquenchable and on the other hand the urge for selfless service of humanity swayed his heart mightly, yet the undoubtedly deepest attraction that Venkatraman Saraswati felt was that towards the study and practice of the science of sciences—the holy ancient Indian spiritual science or Adhyatma-Vidya. In 1908, therefore, he proceeded to the Sringeri Math in Mysore to lay himself at the feet of the renowned late Jagadguru Shankaracharya Maharaj Sri Satcidananda Sivabhinava Nrisimha Bharati Swami.

But he had not stayed there long, before he had to assume the post of the first Principal of the newly started National Coollege at Rajmahendri under a pressing and clamant call of duty from the nationalist leaders. Prof. Venkatraman Saraswati continued there for three years but in 1911 he could not resist his burning desire for spiritual knowledge, practice and attainment any more and, therefore, tearing himself off suddenly from the said college he went back to Sri Saticidanand Sivabhinava Nrisimha Bharati Swami at Sringeri.

The next eight years he spent in the profoundest study of the most advanced Vedanta Philosiphy and practice of the Brahma-sadhana. During these days Prof. Venkatraman used to study Vedanta at the feet of Sri Nrisimha Bharati Swami, taught Sanskrit and Philosophy in schools there, and practise the highest and most vigorous Yoga-sadhana in the nearby forests. Frequently, he was also invited by several institutions to deliver lectures on philosophy; for example, he delivered a serried of sixteen lectures on Shankaracharya's Philosophy at Shankar Institute of Philosophy, Amalner (Khandesh) and similar lectures at several other places like Poona, Bombay etc.

After several years of the most advanced studies, the deepest meditation, and the highest spiritual attainment Prof. Venkatraman Saraswati was initiated into the holy order of Samnyasa at Banaras (Varanasi) by his Holiness Jagadguru Shankaracharaya Sri Trivikram Tirthaji Maharaj of Sharadapeeth on the 4th July 1919 and on this occasion he was given the new name, Swami Bharati Krsna Tirtha.

This was the starting point of an effulgent manifestation of Swamiji's real greatness. Within two years of his stay in the holy order, he proved his unique suitability for being installed on the pontifical throne of Sharda Peeta Sankaracarya and accordingly in 1921, he was so installed with all the formal

ceremonies despite his reluctance and active resistance. Immediately on assuming the pontificate Sri Jagadguruji started touring India from corner to corner and delivering lectures on Sanatana Dharma and by his scintillating intellectual brilliance, powerful oratory, magnetic personality, sincerity of purpose, indomitable will, purity of thought, and loftiness of character he took the entire intellectual and religious class of the nation by storm.

Jagadguru Sankaracarya Sri Madhusudan Tirtha of Govardhan Math, Puri was at this stage greatly impressed by Jagadguruji and when the former was in failing health he requested Jagadguruji to succeed him on Govardhan Math Gadi. Sri Jagadguruji continued to resist his importunate requests for a long time but at last when Jagadguru Sri Madhusudan Tirtha's health took a serious turn in 1925 he virtually forced Jagadguru Sri Bharati Krsna Tirthaji to accept the Govardhan Math's Gadi and accordingly Jagadguruji installed Sri Swarupanandi on the Shardapeeth Gadi and himself assumed the duties of the ecclesiastical and pontifical head of Sri Govardhan Math, Puri,

In this capacity of Jagadguru Sankaracarya of Govardhan Math, Puri, he continued to disseminate the holy spiritual teachings of Sanatana Dharma in their pristine purity all over the world the rest of his life for 35 years. Month after month and year after year he spend in teaching and preaching, talking and lecturing, discussing and convincing millions of people all over the country. He took upon himself the colossal task of the renaissance of Indian culture, spreading of Sanatana Dharma, revival of the highest human and moral values and enkindling of the loftiest spiritual enlightenment throughout the world and he dedicated his whole life to this lofty and noble mission.

From his very early days Jagadguruji was aware of the need for the right interpretation of "Dharma" which he defined as "the sum total of all the means necessary for speedily making and permanently keeping all the people, individually as well as collectively superlatively comfortable, prosperous, happy, and joyous in all respect (including the physical, mental, intellectual, educational, economic, social, political, psychic, spiritual etc. ad infinitum)". He was painfully aware of the "escapism" of some from their duties under the grab of spirituality and of the superficial modern educational varnish of the others, divorced from spiritual and moral standards. He, therefore, always laid great emphasis on the necessity of harmonizing the 'spiritual' and the 'material' spheres of daily life. He also wanted to remove the false ideas, on the one hand, of those persons who think that Dharma can be practiced by exclusively individual spiritual Sadhana coupled with more honest bread-earning, ignoring one's responsibility for rendering selfless service to the society and on the other hand of those who think that the Sadhana can be complete by mere service of society even without learning or practicing any spirituality oneself. He wanted a

happing blending of both. He stood for the omnilateral and all-round progress simultaneously of both the individual and society towards the speedy realization of India's spiritual and cultural ideal, the lofty Vedantic ideal of 'Purnatva' (perfection and harmony all-round).

With these ideas agitating his mind for several decades he continued to carry on a laborious, elaborate, patient and day-and-night research to evolve finally a splendid and perfect scheme for all-round reconstruction first of India and through it of the world. Consequently Sri Jagadguruji founded in 1953 at Nagpur an institution named Sri Vishwa Punarnirmana Sangha (World Reconstruction Association). The Administrative Board of the Sandha consisted of Jagadguruji's disciples, devotees and admirers of his idealistic and spiritual ideals for humanitarian service and included a number of high courts judges, ministers, educationist, statesmen and other personage of the highest caliber in Indian public life. It was, however, after a long and incessant search that Guruji had found his General Secretary Sri Chimanlal Trivedi whom he called his Scipio Africanus and who truly thought, worked, planned and dreamt unceasingly for the Sangha's welfare and progress. Although this Sangha could not function very effectively in the beginning on account of Jagadguruji's failing health, various pre-occupations and other unforeseen hurdles, it is actively engaged now in disseminating Jagadguruji's message and teachings with Justice B.P.Sinha, the Chief Justice of India as its President and Dr. C.D.Deshmukh, (I.C.S) the ex -Finance Minister of India and ex-Chairman, University Grants Commission as its Vice President.

With a view to promote the cause of world peace and to spread the lofty Vedantic spiritual ideals even outside India Sri Jagadguru went on a tour to America in February, 1958, the first tour outside India by a Sankaracarya in the history of the said Order. The tour was sponsored by Self Realisation Fellowship of Los Angeles, the Vedantic Society founded by Paramhans Yoganandji in America. Jagadguruji stayed there for about three months and during this period addressed rapt audiences in hundreds of colleges of universities, churches and other public institutions. He was also invited to give talks and mathematical demonstrations on the television. In fact, he released an exceptionally powerful current of moral and spiritual enlightenment, peace harmony throughout America during his tour which proved a phenomenal success comparable perhaps with that of Swami Vivekananda only. A request was also received by him from Dr. Hornday, the Minister of Church of Religious Science to open a branch of Sri Vishwa Punarnirmana Sangha in America with a view to establish on religion all over the world. The suggestion, however, could not materialize at that time for certain reasons. On his way back Jagadguruji gave some lectures in U.K. also and returned to India in May, 19858.

Guruji had been undergoing a terrific strain for more than five decades in devoting his body, mind, heart and soul to the cause of service of humanity, spreading of spiritual enlightenment and revival of Vedantic ideals. This had already undermined his health but still Guruji never devoted any attention to his personal comforts. The excessive strain of the vast hurricane tour abroad came as a severe blow to his health but still he refused to take rest and incessantly continued to pursue his studies, talks, lectures and writings with unabated and youthlike vigour and enthusiasm. In fact it required a great vigilance and heroic effort to prevent him from giving 'darshan', advice and talks to his devotees and disciples even when he could hardly speak on account of strain. As a result he fell seriously ill in November, 1959 and despite the best available treatment shed off his mortal frame and took Mahasamadhi at Bombay on 2nd February, 1960.

From the very day of his assuming the throne of Jagadguru Sankaracarya, Sri Bharati Krsna Tirthaji had become the cynosure of all eyes. His winning personality, his charming innocence, his eager thirst for knowledge, his religious zeal, his earnest belief in the "sastras", his universal kindness, his retentive memory, all these attracted towards him every living soul that came in contact with him. People flocked to him in crowds and waited at his doors for hours together just to get a glimpse of that divine countenance. It was nothing but the divine lustre that shone in his face. It was nothing but the marvelous superhuman milk of kindness that flowed from his heart.

He was always perfectly impartial. Every one was equal in his eyes. He cared not for riches. He cared not for position. Nothing but Bhakti could attract people to him, rich or poor, high or low, everybody had to go through the portals of Bhakti to approach his august presence. Exhibiting his divinity, he loved as himself everyone came to him. Everyone who had even two minutes' conversion with him went out with the full conviction that he was the object of some special love of His Holiness.

Of such a divine personality it is impossible to draw a sketch. His activities were many –sided. To hear him was a pleasure. To see him was a privilege. To speak to him was a real blessing and to be granted a special interview—Ah! that was the acme of happiness which people coveted most in all earnestness. The magnetic force of his wonderful personality was such that one word, one smile, or even one look was quite enough to convert even the most sceptic into his most ardent and obedient disciple. He belonged to all irrespective of caste or creed and he was a real Guru to the whole world.

People of all nationalities, religions and climes, Brahmins and non-Brhamins, Hindus and Mahomedans, Parsis and Christians, Europeans and Americans received equal treatment at the hands of His Holiness. That was the secret of the immense popularity of this great Mahatma.

He was grand in his simplicity. People would give anything and everything to get his blessings and he would talk words of wisdom as freely without fear or favour. He was most easily accessible to all. Thousands of people visited him and prayed for the relief of their miseries. He had a kind word to say to each. After attentively listening to his or her tale of woe and then give them some "prasad" which would cure their malady whether physical or mental. He would actually shed tears when he found people suffering and would pray to God to relieve their suffering.

He was mighty in his learning and voracious in his reading. A sharp intellect, a retentive memory and a keen zest went to mark him as the most distinguished scholar of his day. His leisure moments he would never spend in vain. He was always reading something or repeating something. There was no branch of knowledge which he did not know and that also 'sastrically'. He was equally learned in Chandahsastra, Ayurveda and Jyyotish Sastra. He was a poet of uncommon merit and wrote a number of poems in Sanskrit in the praise of his guru, gods and goddesses with a charming flow of Bhakti so conspicuous in all his writings.

I have a collection of over three thousand slokas forming part of various eulogistic poems composed by Gurudeva in adoration of various Devas and Devis. These Slokas have been edited and are being translated into Hindi. They are proposed to be published in three volumes along with Hindi translations.

The book on "Sanatana Dharma" by H.H. Swami Bharati Krsna Tirtha Maharaja has been published by Bharatiya Vidya Bhavan, Bombay.

Above all, his Bhakti towards his Vidyaguru was something beyond description. He would talk for days together about the greatness of his Vidyaguru. He would be never tried of worshipping the Guru. His Guru was equally attached to him and called our Swamiji as the own son of the Goddess of Learning, Sri Sarada. Everyday he would first worship his guru's sandals. His "Gurupaduka Stotra" clearly indicates the qualities the qualities he attributed to the sandals of his guru.

Sri Bharati Krsna Tirtha was a great yogin and a "Siddha" of a very high order. Nothing was impossible for him. Above all he was a true samnyasin. He held the world but as a stage where every one had to play a part. In short, he

was undoubtedly a very great Mahatama but without any display of mysteries or occultisms.

I have not been able to express here even one millionth part of what I feel. His spotless holiness, his deep piety, his endless wisdom, his childlike peacefulness, sportiveness and innocence and his universal affection are beyond al description. His Holiness has left us a noble example of simplest living and highest thinking. May all the world benefit by the example of a life so nobly and so simply, so spiritually and so lovingly lived.

INTRODUCTORY REMARKS ON THE PRESENT VOLUME

I now proceed to give a short account of the genesis of the work published here Revered Guruji used to say that he had reconstructed the sixteen mathematical formulae (given in this text) from the Atharvaveda after assiduous research and 'Tapas' for about eight years in the forests surrounding Sringeri. Obviously these formulae are not to be found in the present recensions of Atharvaveda; they were actually reconstructed, on the basis of intuitive revelation, from materials scattered here and there in the Atharvaveda. Revered Gurudeva used to say that he had written sixteen volumes on these Sutras, one for each Sutra and that the manuscripts of the said volumes were deposited at the house of one of his disciples. Unfortunately, the said manuscript were lost irretrievably from the place of their depost and this colossal loss was finally confirmed in 1956. Revered Gurudeva was not much perturbed over this irretrievable loss and used to say that everything was there in his memory and that he could re-write the 16 volumes!

My late husbamd Sri C.M.Trivedi, Hon. Gen. Secretary V.P.Sangh noticed that while Sri Jagadguru Maharaja was busy demonstrating before learned people and societies Vedic Mathematics as discovered and propounded by him, some persons who had grasped a smattering of the new Sutras had already started to dazzle audiences as prodigies claiming occult powers without knowledging indebtedness of the Sutras of Jagadguruji. My husband, therefore, pleaded earnestly with Gurudeva and persuaded him to arrange for the publication of the Sutras in his own name.

In 1957, when he had decided finally to undertake a tour of the U.S.A. he re-wrote from memory the present volume, giving an introductory account of the sixteen formulae reconstructed by him. This volume was written in his old age within one month and a half with his failing health and weak eyesight. He had planned to write subsequent volumes, but his failing health (and cataract developed in both eyes) did not allow the fulfillment of his plans. Now the present volume is the only work on Mathematics that has been left over the Revered Guruji; all his other writings on Vedic Mathematics have, alas, been lost forever.

The typescript of the present volume was left over by Revered Gurudeva in U.S.A. in 1958 for publication. He had been given to understand that he would have to go to the U.S.A. for correction of proofs and personal supervision of printing. But his health deteriorated after his return to India and finally the typescript was brought back from the U.S.A. after his attainment of Mahasamadhi, in 1960.

ACKNOWLEDGEMENTS

I owe a deep debt of gratitude of Justice N.H.Bhagwati, the enlightened Vice-Chancellor of the Banaras Hindu University and other authorities of the B.H.U. who have readily undertaken the publication of this work which was introduced to them by Dr. Pt. Omkarnath Thakur. I am indebted to Dr. Thakur for this introduction. My hearty and reverent thanks are due to Dr. V.S.Agrawala (Professor, Art & Architecture, B.H.U) the veteran scholar, who tool the initiative and throughout kept up a very keen interest in this publication. It is my pleasant duty to offer my heartfelt gratitude to Dr. Prem Lata Sharma, Dean, Faculty of Music and Fine Arts, B.H.U. who voluntarily took over the work of press-dressing of the typescript and proof-reading of this volume after a deadlock had come to prevail in the process of printing just at the outset. But for here hard labour which she had undertaken out of a sheer sense of reverence of the noble and glorious work of Revered Gurudeva this volume would not have seen the light of the day for a long time. I trust that Revered Gurudeva's Holy Spirit will shower His choicest blessings on her. My sincere thanks are also due to Sri S. Nijabodha of the Research Section under the charge of Dr. Sharma, who has ably assisted her in this onerous task.

The Humblest of His Disciples

Manjula TriVedi

Nagpur

16 March, 1965

Honorary General Secretary

Sri Vishwa Punarnirmana Sangha

Nagpur

VEDIC MATHEMATICS, SCIENCE & TECHNOLOGY STEP 3

Dr. S. K. Kapoor (Ved Ratan)

Recapitulation

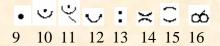
1. As step 1, it was impressed upon that one shall acquaint well with the Devnagri alphabet.

अ इ उ ऋ लू ए ओ ऐ औ क ख ग ध ड च छ ज झ ञ ट ठ ड ढ़ ण त थ द ध न प फ ब भ म य व र ल श ष स ह

Step - 2

2. The transcendental (5-space) code values accepted by letters of Devnagri alphabet come to be as under

अइउऋलुएओ ऐ औ १२३४ ५६ ७८६ क खगध ड 9 2 3 8 4 च छ ज झ ञ २३४५ ६ ट ठ ड ढ़ ण ३ ४ ५ ६ ७ तथदधन ४५६७ ८ प फ ब भ म ५६७5६ यवरल 1 3 5 7 शसषह २३६६



Step 3

3. The organization format of Devnagri alphabet as 9 vowels, 5 x 5 varga consonants and 16 other consonants lead to the following features.

Feature - 1

4. 9 vowels permit arrangement along a line of 9 steps.



5. The number 5 has a middle placement and as such at this placement there would be a bend which shall be leading to 5 x 5 format for organization of 25 varga consonants as of values

_				
1	2	3	4	5
2	3	4	5	6
3	4	5	6	7
4	5	6	7	8
5	6	7	8	9

6. The above 5 x 5 matrix format as grid format shall be leading to 4 x 4 = 16 grid zones for the organization of 16 remaining letters of Devnagri alphabet.

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

- 7. This organization format is a very rich format which sequentially takes from linear set up to spatial set up to solid set up.
- 8. The sequential availability of linear order, spatial order and solid order potentialize the organization of knowledge in terms of this alphabet format to reach at a single Discipline of knowledge for the whole range of knowledge of transcendental (5-space) features.