Sri – Om VEDIC MATHEMATICS AWARENESS YEAR

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'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 at School.

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

ISSUE NO 89

Content VMS & T principles' Scriptural References

Pages

01-02

Focus

IV Body (शरीर), Mind (मन), Intelligence (बुद्धि), consciousness (चित), soul (आत्मा) , Braham (ब्रह्म्)

One thousand pure and applied values of Ganita Sutras and Ganita Upsutras

III Revisit the Discipline and 03-06 organization of Ganita Sutras and Upsutras with an urge to know more about its values and unfolding processes

VMS & T principles' Scriptural References

FOCUS

I Sankhiya Nishtha and Yoga Nishtha

II

Quadruple phases and stages of manifestation (व्यक्तः Vykata, अव्यक्तः Avykata, अव्यक्तोऽव्यक्तात् / सनातनः Avykato Avykatat / Sanatana and पुरुष Pursha)

> III Om (ॐ), Parnava (प्रणवः), Aum (ओम्) and Aumkar (ओमकार)

IV

Body (शरीर), Mind (मन), Intelligence (बुद्धि), consciousness (चित), soul (आत्मा) , Braham (ब्रह्म्)

- 1. Human Frame has shad chakras (6 eternal circuits format).
- 2. Along these 6 chakras manifest 6 compactified folds, namely **Body** (शरीर), **Mind** (मन), **Intelligence** (बुद्धि), **consciousness** (चित्त), **soul** (आत्मा), **Braham** (ब्रह्म्).
- 3. Srimad Bhagwad Geet in its chapter 3 shalokas 42 & 43, in particular elaborates sequential inner folds of our Existence Phenomenon within human frame.

- 4. This Phenomenon of compactified inner folds, starting with body, sequentially leads to mind, intelligence, consciousness, soul and ultimately 'Brahman format'.
- 5. Upnishads particularly Yog Tatatav upnishad preserve the external features of shad chakras (6 eternal circuits of Human Frame) being of values sequence (2, 4, 6, 8, 10, 12).
- 6. These values sequence (2, 4, 6, 8, 10, 12) is parallel to the values of boundary components of hyper cubes 1 to 6.
- 7. With it the Existence Phenomenon within Human Frame (of Pursha format) becomes of the format and features of Sathapatya measuring rod synthesized by hyper cubes 1 to 6.
- 8. This range is also parallel to Earth to Sun range of our solar universe with pole star as its origin.
- 9. With it the organization permits chase in terms of common Sathapatya measuring rod with Lord Vishnu, the presiding deity of 6-space being the deity of measuring rod and Lord Brahma, creator the Supreme being the deity of measure of the measuring rod.

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

One thousand pure and applied values of Ganita Sutras and Ganita Upsutras

প্রী ॐ Sri-om

I One thousand pure and applied values

II Chase of organization format and features

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Revisit the Discipline and organization of Ganita Sutras and Upsutras with an urge to know more about its values and unfolding processes

- 1. The Discipline and organization of Ganita Sutras and Upsutras is very rich.
- 2. The values and virtues of the format and features of the Discipline and organization of Ganita Sutras and Upsutras is of very big range.
- 3. The Discipline and organization of Ganita Sutras and Upsutras be approached as:

Sole	Ganita Sutra 1	Ganita Uputra 1	End reach
syllable			value
Ť	एकाधिकेन पूर्वेण	अनुरूप्येण	प्रणवः

4. Beginning with sole syllable Braham (Om Iti Ek Akshar Braham) and reach at ITS synonym Parnava (तस्य वाचका प्रणवः) through the steps of Ganita Sutras and Ganita Upsutras will help us glimpse format, features, values, virtues, transcendental (5-space) base and Order of the Discipline and organization of Ganita Sutras being parallel to vedic systems which will help us read Vedas written on rays of the Sun.

Chase Steps format

5. For chase steps format one shall follow the Discipline and organization as

Sole Sanita Sutra 1 syllable		Ganita Uputra 1	End reach value	
Š	एकाधिकेन पूर्वेण	अनुरूप्येण	प्रणवः	

- 6. To begin with the four fold sequential unfolding values of sole syllable Om are to be taken into consideration.
- 7. These values reach is as (i) Om as sole, syllable (ii) Om as of four folds (iii) Om as Shodas (16) Kalan (iv) Om as units of value 4 x 4 x 4.
- 8. The above sequential values quadruple (1, 4, 16, 64) is of organization format and features (4⁰, 4¹, 4², 4³)

9. Here it would be relevant to note that sole syllable Om as of four folds accepts quadruple values (1, 2, 3, 4). Along 4 x 4 format, the values arrangement as under would lead total value being 4³:

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1 2 3 4 total value 10
2 3 4 5 total value 14
3 4 5 6 total value 18
4 5 6 7 total value 22
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Grand summation value 10 + 14 + 18 + 22 = 64

- 10. The above quadruple values (1, 4, 16, 64), sequentially permits organization as:
 - (i) $4^0, 4^1, 4^2, 4^3$
 - (ii) $(2^2)^0$, $(2^2)^1$, $(2^2)^2$, $(2^2)^3$,
 - (iii) $[(2^2)^1]^0$, $[(2^2)^1]^1$, $[(2^2)^1]^2$,
 - (iv) $2^0, 2^4, 2^8, 2^{12}$
- 11. The end reach value (प्रणवः) accepts TCV values quadruple (7, 8, 8, 13) with summation value $36 = 6 \times 6$.
- 12. It would be relevant to note that TCV (उदगीत:) = 3 + 6 + 3 + 4 + 6 + 1 + 13 = 36
- 13. Here it would be relevant to note that the first letter of the text of Ganita Sutra 1 namely (\mathbb{Q}) sixth vowel accepts TCV (\mathbb{Q}) = 6
- 14. Further that TCV (प्रणवः) = TCV (उदगीतः) = 36
- 15. Still further it also would be relevant to note that the organization of values along 6 x 6 format as under would be leading to total summation value 216 = 6 x $6 \times 6 = 6^3$

1	2	3	4	5	6	total value 21
2	3	4	5	6	7	total value 27
3	4	5	6	7	8	total value 33
4	5	6	7	8	9	total value 39
5	6	7	8	9	10	total value 45
6	7	8	9	10	11	total value 51

Grand total value 21+ 27+33+ 39 + 45+51=216

16. Still further it also would be relevant to note that TCV (ओउम्) = 16 and TCV (अ) = 1, TCV (ओ) = 3, TCV (ਸ੍) = 9 and

$$TCV(3) + TCV(3) + TCV(4) = 1+3+9 = 13$$

- 17. One may have a pause here and take note that the above TCV values pair (16, 13) is parallel to the Ganita Sutras and Upsutras (16, 13).
- 18. Still further it also would be relevant to note that TCV (ओड्.कारः) = 1 + 3 + 5 + 1 + 2 + 3 + 1 + 13 = 16 + 13 = 29
- 19. Still further it also would be relevant to note that TCV values triple (1, 3, 9) of TCV $(\mathfrak{A}) = 1$, TCV $(\mathfrak{A}) = 3$, TCV $(\mathfrak{A}) = 9$, permits re-organization as 3^0 , 3^1 , 3^2 .
- 20. In the above background of features, the Divya Ganga flow of quadruple values (9, 7, 3, 1) from the artifices components of sole syllable Om will bring us face to face with the transcendence downward along the format (9, 7) and ascendance upward being of the format (1, 3).
- 21. It would further bring us face to face with the format values of domain fold and dimension fold (9-space and 7-space) and the other way around (dimension fold, domain fold) as (1-space, 3-space).

- 22. Of these the first feature of transcendence downward of format (9-space, 7-space) / domain fold, dimension fold / (9, 7) will bring us face to face with the feature of the text of Ganita Sutra 1, which is of a pair of words formulations, first of which namely 'एकधिकेन' composition of 9 letters while the second word formulation 'पूर्वेण' is a composition of 7 letters.
- 23. Still further It also would be relevant to note that 9 point fixation of cube (as 8 corner points and 9th center) permits coordination for its all the eight corner points in terms of 7 edges as of sequential arrangement beginning with first corner points and reaching uptill the 8th corner point of the cube.
- 24. Still further here it also would be relevant to note that all the double digit number of eight place value permit organization along 9 x 7 grid / matrix format as under:

01	02	03	04	05	06	07	
10	11	12	13	14	15	16	
17	20	21	22	23	24	25	
26	27	30	31	32	33	34	
35	36	37	40	41	42	43	
44	45	46	47	50	51	52	
53	54	55	56	57	60	61	
62	63	64	65	66	67	70	
71	72	73	74	75	76	77	100

- 25. The bare look at the above organization will bring to focus that the same is of two parts, the upper part in between row 01, 02, 03, 04, 05, 06, 07 and diagonal 10, 20, 30, 40, 50, 60, 70.
- 26. The second part is below the above diagonal of values (10, 20, 30, 40, 50, 60, 70).
- 27. The first part is having three self reflecting artifices values numbers (11, 22, 33), while the lower part is having quadruple self reflecting artifices numbers (44, 55, 66, 77).
- 28. The triple self reflecting artifices numbers (11, 22, 33) constitute a mirror line for the upper part and the same on its both ends are coordinated by pair of reflection numbers namely (01, 10) and (34, 43).
- 29. The mirror line of lower part is constituted by quadruple numbers values (44, 55, 66, 77).
- 30. The upper part from first column to the seventh column are having reflection pairs of numbers of frequency (1, 1), (2, 2), (3, 3), (4)
- 31. The lower part from column 1 to column 7 are having reflection pair number frequencies (3, 3), (2, 2), (1, 1) = 0
- 32. It would be relevant to note that the combined frequencies for both parts from column 1 to column 7 come to be 1+3=4, 1+3=4, 2+2=4, 2+2=4, 3+1=4, 3+1=4, 4+0=4.
- 33. Here It would be relevant to note that for all the seven columns combined frequencies are of equal value fold.
- 34. Further It would be relevant to note that $7 \times 4 = 28$ is the total frequency of reflection pairs of both parts
- 35. Further the total self reflecting numbers for both parts are 7.

- 36. With it the total 63 double digit numbers of eight place value system get organization as 28 reflection pairs of numbers and 7 self reflecting numbers.
- 37. The artifices pair (28, 7) is of organization features (7, 4), (7, 1).
- 38. Simultaneously it also would be relevant to note that the organization of 63 numbers is of partition features (8, 7), (1, 7).
- 39. The above features deserve to be comprehended well
- 40. Now in the light of the above when the organization of numbers being reached at as per the working rule of Ganita Sutra 1, viz (1, 2, 3, 4, 5, 6, ---) is chased for their internal organization it would come to notice that
 - (i) Number 1 is having single arrangement 1= 1.
 - (ii) Number 2 is having arrangement of 2 values for artifice value 2 as 2 = 2 and 2 = 1 + 1.
 - (iii) Further number 3 accepts arrangement for value 3 as 3 = 3, 3=1+2, 3 = 2+1 and 3 = 1+1+1 which make a set of four such arrangement for value 3.
- 41. Like that, the internal arrangement for number 1, 2, 3, 4, --- would be values sequence $(2^0, 2^1, 2^2, 2^3, ---)$
- 42. One may have a pause here and take note that the number sequence (1, 2, 3, 4, --) leads to values sequence $(2^0, 2^1, 2^2, 2^3, --)$.
- 43. This value sequence (2⁰, 2¹, 2², 2³,--) is parallel to values format of two place value system.
- 44. This format is parallel to $(2^0, 2^1, 2^2, 2^3, --)$
- 45. One may have a pause here and take no9te that the transition from the format (ॐ) to the format of (ओउम्) would be providing a transition for the above $(2^1)^0$, $(2^1)^1$, $(2^1)^2$, $(2^1)^3$, --- values sequence to values sequence $(2^3)^0$, $(2^3)^1$, $(2^3)^2$, $(2^3)^3$,
- 46. This reach, with the proportionality / symmetry / rule to follow the form as it is of Ganita Upsutra 1 shall be leading us for transition from Ganita Sutra 1 to Ganita Sutra 2 having format of 10 place value system.
- 47. One may have a pause here and have revisit to the above format and features of Discipline and organization of Ganita Sutras and Upsutras and it would provide us insight as to the richness of this Discipline and organization having much wider potentialities range than what the many scholars are conceding at present about the Mathematics of Ganita Sutras.
- 48. It also would compel the scholars to revise their opinion who think as if Ganita Sutras are not part of Vedic Systems and Vedic knowledge.

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