

Sri – Om

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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.

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- I Sankhiya Nishtha and Yoga Nishtha
- II Quadruple phases and stages of manifestation (व्यक्तः Vyakata, अव्यक्तः Avyakata, अव्यक्तोऽव्यक्तात् / सनातनः Avyakato 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 (ब्रह्म)
- V Single letters meanings Dictionary

VI

Organization of Srimad Bhagwad Geeta and its chase by the systems of Ganita Sutras

- 1. Srimad Bhagwad Geeta is the Divine song of enlightenment of Existence Phenomenon within Human Frame by Lord Krishna, the incarnation of Lord Vishnu, the presiding deity of 6-space.
- 2. Ganita Sutras chase of organization of Srimad Bhagwad Geeta is a very big range of steps and likewise the chase of Ganita Sutras themselves in terms of the values of Srimad Bhagwad Geeta as well is going to be of equally very long range of steps.

3. Both ways, the chase is going to be a very blissful study.
4. Here only one such chase step is being taken up as an illustrative steps.
5. Ganita Sutras text specifically formulates numbers values as ‘एक 1, द्वि 2, सप्त 7, नव 9, दश 10.
6. This set of five numbers (1, 2, 7, 9, 10) is having first gap range of numbers values (3, 4, 5, 6) and second gap value number (8).
7. The first quadruple number values of first gap namely (3, 4, 5, 6) is of the summation value $(3 + 4 + 5 + 6) = 18$, which is parallel to the organization of Srimad Bhagwad Geeta as of 18 steps range of Disciplines of Yoga (organized as 18 chapters of Srimad Bhagwad Geeta).
8. The second gap number value (8) in between numbers pair (7, 9) is of the format of $8 = 2^3$ having placement in between the number values pair (7, 9), which are of the organization format (9-space as domain fold, 7-space as dimension fold) / Bindu Sarover component of sole syllable Om accepts value (9) and 7 streams flow from the Bindu Sarovar to fill the gap in between first component and second component (Ardh Matra) of sole syllable Om.
9. Further this pair of artifices (9, 7) is also parallel to the number of letters availed by first word composition ‘एकाधिकेन’ and second word composition ‘पूर्वेण’ of Ganita Sutra 1 text, respectively availing 9 letters and 7 letters.
10. Further here also it would be relevant to note that as spatial order 9 numerals range (1, 2, 3, 4, 5, 6, 7, 8, 9) shall be transiting and transforming into 9 steps long values range ($1 \times 1, 2 \times 2, 3 \times 3, 4 \times 4, 5 \times 5, 6 \times 6, 7 \times 7, 8 \times 8, 9 \times 9$).
11. Eight gaps of the range of 9 steps ($1 \times 1, 2 \times 2, 3 \times 3, 4 \times 4, 5 \times 5, 6 \times 6, 7 \times 7, 8 \times 8, 9 \times 9$), would be accepted transition values range ($1 \times 2, 2 \times 3, 3 \times 4, 4 \times 5, 5 \times 6, 6 \times 7, 7 \times 8$ and 8×9).
12. Let us have a pause here and take note that the gap value between the pair of values (7×7 and 8×8) comes to be (7×8).
13. The gap value $7 \times 8 = 56$ is the values format in terms of which the transition from linear order format to spatial order format can be attained. As such the values range of 18 steps of shalokas of chapter 1 to chapter 18 of Srimad Bhagwad Geeta namely (47, 72, 43, 42, 29, 47, 30, 28, 34, 42, 55, 20, 34, 27, 20, 24, 28, 78) deserve to be chased in terms of the values range in reference to the gap transition value (56).
14. It shall be leading to the values range:
 - (i) $56 = 47 + 9$
 - (ii) $56 = 72 - 16$
 - (iii) $56 = 43 + 13$
 - (iv) $56 = 42 + 14$
 - (v) $56 = 29 + 27$

- (vi) $56 = 47 + 09$
- (vii) $56 = 30 + 26$
- (viii) $56 = 28 + 28$
- (ix) $56 = 34 + 22$
- (x) $56 = 42 + 14$
- (xi) $56 = 55 + 01$
- (xii) $56 = 20 + 36$
- (xiii) $56 = 34 + 22$
- (xiv) $56 = 27 + 29$
- (xv) $56 = 20 + 36$
- (xvi) $56 = 24 + 32$
- (xvii) $56 = 28 + 28$
- (xviii) $56 = 78 - 22$

15. The above 18 steps long range for the shalokas range of 18 chapters of Srimad Bhagwad Geeta, in reference to the gap transition value (56, leads to access / deficient values sequence (9, -16, 13, 14, 27, 9, 26, 28, 22, 1, 36, 29, 22, 29, 36, 32, 28, -22)).
16. It would be relevant to note that at ten steps there are repeated values which as such make out 5 pairs of values namely (9, 9), (14, 14), (22, 22), (28, 28), (36, 36).
17. The values range (9, 14, 22, 28, 36) deserve to be chased.
18. Of the remaining 8 values of above range, namely (-16, 13, 27, 26, 1, 29, 32, -22).
19. This range of 8 steps is of arrangement (-22, -16, 1, 13, 26, 27, 29, 32).
20. Further here it would be relevant to note that above pair of ranges of five steps (of repeated values) and of 8 steps of non repeated values, lead to 13 distinct values.
21. This range of 13 steps values admits a split into a pair of ranges of odd values and even values as under :
 - i. (1, 9, 13, 27, 29)
 - ii. (-16, -22, 14, 22, 26, 28, 32, 36)
22. This eight steps long even values range has a split into a pair of sub ranges of values divisible by 4 and values divisible by 2 but not divisible by 4 namely
 - (a) (-16, 28, 32, 36).
 - (b) (-22, 14, 22, 26).
23. This sub range of even values divisible by 2 but not divisible by 4 is having a unique feature of positive and negative values numbers pair (-22, +22).
24. The remaining pair of values of this sub range is (14, 26).

- 25.The values pair (14, 26) permits re-organization as a pair of manifestation layers ($2 + 3 + 4 + 5$, $5 + 6 + 7 + 8$) which are dimension fold and origin fold of re-manifested manifestation layers format.
- 26.The numbers pair (-22, +22) as well accepts re-organization as
- (i) Negative manifestation layer (4, 5, 6, 7)
While the value 22 accept re-organization as positive orientation manifestation layer (4, 5, 6, 7)
- 27.Here it would be relevant to note that the organization of 700 shalokas of the text of Srimad Bhagwad Geeta splits in two parts as (350-22) range of shalokas of chapters 1 to 9 and (350 + 22) numbers of shalokas of chapters 10 to 18.
- 28.It also would be relevant to note that the last shaloka of chapter 9 and (78-13) = 65 shaloka of chapter 18 are having ‘common text’ for first part and first quarter of the second part of above referred shalokas of chapter 9 and chapter 18 of Srimad Bhagwad Geeta.
- 29.The five steps long range of odd values (1, 9, 13, 27, 29) leads to summation value 79 availing pair of digits ‘7’ and ‘9’.
- 30.These artifices values organization feature in reference to artifice 56 with artifice 56 itself accepting re-organization as (13, 14, 15, 16) parallel to four fold manifestation layer (dimension fold of value 13, boundary fold of value 14, domain fold of value 15 and origin fold of value 16) in many ways help coordinate organization format of Srimad Bhagwad Geeta with organization format of Ganita Sutras (16) and Ganita Upsutras (13) and 29 Archiks of Samaveda and Archiks, Rashmia / systems of Jyoti flow manifesting Triloki within rays of the Sun.

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20-01-2015**Dr. S. K. Kapoor, (Ved Ratan)**

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

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Sri-om

- I One thousand pure and applied values**
- II Chase of organization format and features**
- III Revisit the Discipline and organization of Ganita Sutras and Upsutras
with an urge to know more about its values and unfolding processes**
- IV Steps to reach at organization format of the text of Ganita Sutras and
Ganita Upsutras**

V

**Ganita Sutras' Mathematics of domain folds and
Steps for processing features of Ganita Sutras and Ganita Upsutras**

1. The distinguishing feature of Ganita Sutras Mathematics over modern Mathematics is that Ganita Sutras handle dimensional folds parallel to artifices of numbers which had eluded modern mathematical systems and because of it modern Mathematics has held up and has failed to have transition from hyper circle 1 to hyper circle 8. Further finding it illusion as to while continuous function do not permit derivates, etc. etc.
2. Ganita Sutras work out systems to settle and process the formats for dimensional frames as manifested domain folds sustaining synthesized dimensional domains.
3. Having hyper cube format for the dimensional axis and in terms thereof constructing dimensional frames to synthesize domains enveloped within geometric envelops and allowing transcendence through origin fold for transition and transformation for the domain fold into next higher dimensional order domain fold.
4. In this light, the point as basic constituent of the domain fold becomes the structured point of the domain fold. With this, the Mathematics of Ganita Sutras acquires features for its processing system, the technique of handling structured point as Mathematical tools.
5. The structured points (गण) Gana / reservoir of bonds lead to features, values, virtues, orders and formats collectively making each structured point of the Gana full of choiced Guna (गुण)
6. Stripping off 'these bonds' and re-preservation of same into and as Sopan (सोपान) / domains make out Mathematics (गणित) of stripped off features (गुणित) and (गुणक) re-preserving the features into and as formatting 'क' / (क ब्रह्मा), the creator (4-space) domain and as (क शिव) / transcendental (5-space) domain.
7. The inherent characteristic of this Mathematics is that such processing system works out transition and transformation from manifested creations of 4-space format into transcendental (5-space) domains as transcendence Phenomenon

manifesting transcendental (5-space) path for transcendental (5-space) carriers throughout the solar universe (6-space) with pole star (7-space) as its origin fold reservoir of black (तम्) matter (द्वय).

8. In the process half black (रज) substance (पदार्थ) gets super imposed upon black (तम्) matter (द्वय).
9. This makes transcendental (5-space) carriers path settled with super imposed set up of (रज पदार्थ) upon (तम् द्वय) for transcendental (5-space) carriers carrying Jyoti (ज्योति) as transcendental (5-space) glow (गौ) as affine state space content (सत्त्व सत्ता)
10. Modern mathematical systems have to transit and transform enough to be parallel to Vedic Mathematical systems.
11. The basic feature of exercise would be as to how the gap between '0 and 1', '1 and 2', '2 and 3' is to be bridged.
12. The first apparent way would be to have in between values sequence '1/2', '3/2', '5/2', ---'
13. It shall be making the sequential arrangement of triples '0, ½, 1', '1, 3/2, 2', '2, 5/2, 3' ----'.
14. The second way would be to firstly reach at 0×0 , 1×1 , 2×2 , 3×3 , --- and then to reach at $(1 \times 1, 1 \times 2, 2 \times 2)$, $(2 \times 2, 2 \times 3)$, $(3 \times 3, 3 \times 4, 4 \times 4)$, ----.
15. The other step would be to have parallel sequences as $(1, 2, 3, 4, \dots)$ and $(2, 4, 6, 8, \dots)$ as domain folds and boundary folds.
16. Then to reach at geometries sequence $(1, 3, 5, 7, 9, \dots)$.
17. This reach at the gaps of hyper cubes / domains enveloped within boundaries, will bring into many additional features for bridging the gaps.
18. Further the numbers sequence $(1, 2, 3, 4)$ shall be worked out their internal organization arraignments values range $(2^0, 2^1, 2^2, 2^3, 2^4, \dots)$.
19. Thereafter reach should be at the hyper cubes formats beneath these internal organization arrangements of numbers.
20. With the availability of hyper cubes formats of manifested domains, would be available measuring rods which shall be scaling orbital's within orbits of the domain folds.
21. With it there would be the availability of dimensional frames as the reference point for location as well as for synthetic seals for sustaining the space content as manifested domain folds.
22. The dimensional frames with structured points as constituents would ultimately be the Mathematical tool to be handled. It is the success of Vedic Mathematics systems to handle these Vedic Mathematics tools which deserve to be chased by the modern Mathematical systems.
23. To reach at steps of processing features of the Discipline of Ganita Sutras and Upsutras, the text of Ganita Sutras and Upsutras is to be visited.
24. The text of Ganita Sutras and Upsutras avails 519 letters in all.
25. This text which is organized as 16 Sutras and 13 Upsutras and runs over the range of 519 letters in all, avails just 40 letters namely (अ, आ, इ, ई, उ, ऊ, ए, ओ, ऐ) (Vowels), (., :.) (Yamas) and (क्, ख्, ग्, ङ्, च, ज, ब, ट, ण, त, थ, द, ध, न, प, भ, म, य्, र्, ल्, व्, श्, स, ष, ञ्) / (Consonants)
26. The breakup of these 40 letters is as 10 vowels, 2 yamas and 28 consonants.

27. Of these the first vowel (अ) also has alternative symbol (८).
28. The letter (ऋ) is also having graded symbol (े).
29. There is one composite letter (ङ).
30. The composite letter (ङ) is a composition of two letters ज, ज. Of these two letters second letter ज is not having independent presence but for in the composite letter (ज).
31. With it vowels, yamas including alternative symbol for first vowel makes 17 letters range.
32. The remaining is of 23 letter range ज is not making its independent presence. However letter र is having a graded presence as (े)
33. The chase of text of Ganita Sutras and upsutras brings to focus following specific features

First specific feature

34. Text has specific numbers for

‘शून्य एक द्वि सप्त दशः
Zero one two seven nine ten/

35. One may have a pause here and take note Aas that what could be the basis for having only above five numbers formulations in text
36. Further one shall pose to oneself as to how Ganita Sutras features shall be working out whole range of numbers with these five numbers

Second specific set of features

37. The second specific feature is that the text the formulation for the directions:
i. पूर्व, (east) ii. उर्ध्व, (upward wise) iii. त्रियक (diagonal wise / crossword),
iv. अध (downward)
38. One shall pose to one self as to what possible basis could be there for including formulations for above 4 directions only
39. Further one shall also pose to oneself as to how Ganita Sutras systems successful workout whole range of direction within a space.

Third specific set of feature

40. The text of Ganita Sutras Comparisons has the following specific formulations for comparisons
41. (i) अधिकेन / more than / greater than
(ii) घूनेन / less than
(iii) सम / equal
(iv) साम्य / parallel
(vi) अनुरूप्ये / likewise the form and format/
(vii) आनुरूप्येण / proportionately / symmetrically / following the form as it
(viii) यावदूनम / deficient of
(ix) तावदूनम / further more equivalent deficient (double of the deficiency)
42. One shall pose to oneself as to how the above comparative values features can help workout mathematical relationships.

Fourth specific set of features

43. Following simultaneous features are available in the text of Ganita Sutras and Upsutras (i) ‘ऊर्ध्वतिर्यग्भ्याम्’ (ii) ‘संकलनव्यक्लनाभ्याम् ।’ (iii) ‘पूरणापूरणाभ्याम् ।’ (iv) ‘चलनकलनाभ्याम् ।’ (v) ‘चलनकलनाभ्याम् ।’ (vi) ‘यावदूनम् ।’
44. One may have a pause here and take note that how these duplexes help work out Mathematical systems of Ganita Sutras.

Fifth Specific set of features

45. The following specific states features are marked in the Ganita Sutras and Upsutras (i) अदि beginning / starting point (ii) अन्त / end point (iii) समुच्चय constituents accepting association of given features (iv) व्यष्टि / Part of the whole (v) समष्टि / whole / wholeness / all / चर्मम / last.
46. One may have a pause here and have a above help/

Sixth Specific set of features

- 26, The following specifically mathematical operation (i) परावर्त्य (ii) योजयेत / unite. संकलन to add / compile (v) व्यवकलन (vi) गुणितसमुच्चयः (vii) गुणकसमुच्चयः । (Viii) समुच्चयगुणितः । (ix) समुच्चयगुणितः गुणितसमुच्चयः (x) वेष्टनम्

Working rules of Ganita Sutras and Ganita Upsutras

Working rules of Ganita Sutras

47. By One More than One before
48. All from 9 and the last from ten
49. Vertically and crosswise
50. Transpose and Apply
51. *Sunyam Samyasamuccaye*
52. If one is in Ration the others is Zero
53. By addition and by subtraction
54. By the completion or non-completion
55. Differentiation Calculus
56. By the Deficiency
57. Specific and General
58. The Remainder by the last digit
59. The ultimate and twice the penultimate
60. By One less than the One Before
61. The product of the Sum
62. All the Multipliers

Working rules of Ganita Upsutras

63. Proportionately
64. That remains is remainder
65. First with first Last with last
66. Only Seven as multiplicand
67. Osculators
68. That twice This twice
69. That twice This twice Square and add
70. Ends to sum as ten
71. Ends to be in ratio
72. Samuchya as product
73. That missing to be established
74. By observation
75. Product samuchya Samuchya Product

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