VEDIC MATHEMATICS

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I Vedic Mathematics

1. Mathematics at the base of organization of whole range of knowledge as a single Discipline of knowledge is Vedic Mathematics.
2. Vedic Mathematics preceded organization of Vedas as Samhitas. And, in the process the whole range of Disciplines of knowledge stood transformed and got merged their identities within Samhitas.
3. Vedic Mathematics remained no more any exception. At this way, Mathematics as well stood merged into samhitas in a transformed form and acquired status of ‘Vedic Mathematics’.
4. Such organization of knowledge as Vedic samhitas, as such because of unified feature, that way made ‘knowledge’ and ‘organization of knowledge’ running parallel to each other.
5. This takes us to a ‘structural key’ as that the unfolding process of vedic scriptures is to be of the feature that knowledge of the given scripture is to be approached in terms of organization of the scripture.
6. And, on the other hand, the organization format features of the vedic scripture are to be approached in terms of knowledge of the scripture.
7. This takes us to two fold established processing processes designated as Sankhiya Nishtha and Yoga Nishtha.
8. Sankhiya Nishtha and Yoga Nishtha are complementary and supplementary of each other. Further, at the same time these run parallel to each other.
9. Sankhiya Nishtha presumes the existence of geometric formats and works out artifices of numbers along geometric format.
10. On the other hand, Yoga Nishtha presumes the existence of artifices of numbers and worksout dimensional spaces parallel to artifices of numbers.
11. With it ‘numbers and artifices of numbers’ on the one hand and ‘dimensional spaces and dimensional frames’ on the other hand become the basic Vedic Mathematical tools.
12. Vedic Mathematical tools settle features of Vedic Systems for chase of the universe.
13. The chase format, that way runs parallel to Sathapatya measuring rod.
14. Sathapatya measuring rod is presided by Lord Vishnu.
15. The measure of this measuring rod is presided by Lord Brahma, four head lord, creator the supreme.
16. Measuring rod settles the flow path of transcendence for sunlight through core of the Sun.
17. This Jyoti flow path is presided by Lord Shiv, the transcendental lord.
18. With it, the manifestation and dissolution of Triloki (Vishva / this world as manifested domain) is sustained and regulated by Trimurti (Lord Vishnu, lord Shiv and Lord Brahma).
19. Therefore Vedic Mathematics values run parallel to this Vedic technology of Existence Phenomenon of our solar universe.

II Sakala Rigved Samhita

20. Sakala Rigved Samhita is the source Vedic scripture.
21. Ganita Sutras text is the text of Vedic Mathematics in terms of which the settlement of the organization format of this samhita can be chased.
22. The paramount feature of ‘knowledge and organization format of this samhita’, is of the order of solar universe.
23. Solar universe is being approached at its dimension of dimension level which is parallel to spatial order.
24. With it the spatial order (2-space in the role of dimension of 4-space and dimension of dimension of 6-space) becomes the basic order of Vedic Mathematics.
25. This takes us to from spatial order to 2-space to square to hyper cube 2 to water as the second element.
26. Accordingly Vedic basis of Ganita Sutras is to be chased to evaluate the extent as to its order being parallel to the order of Rigved Samhita.
27. Sakala Rigved Samhita is a scripture of the range of 10 mandals / 8 austaks / 64 chapters / 85 anuwaks / 1028 suktas / 2024 vargas.
29. Infact, except ‘Vargam’ no other geometric (format) formulation is accepted as part of the text of Ganita Sutras (and Ganita Upsutras).
30. With it the precise test of Vedic basis of Ganita Sutras text comes to be as to how the organization of Ganita Sutras is parallel to the features of 2024 vargas organization range of Sakala Rigved Samhita, the source Vedic scripture.

III Text of Ganita Sutras

31. Title of the text of Ganita Sutras is ‘गणित सूत्राणि’.
32. Text is of two parts, namely Sutras and Upsutras.
33. There are 16 Sutras and 13 Upsutras.
34. Text avails 36 letters of the Devnagri alphabet.
35. Devnagri alphabet accepts transcendental code values as under

**Devnagri alphabet format**

Transcendental code values format

<table>
<thead>
<tr>
<th>Vowels</th>
<th>Letter</th>
<th>अ इ उ ए ओ ए औ</th>
<th>TCV values</th>
<th>1 2 3 4 5 6 7 8 9</th>
</tr>
</thead>
</table>

**Consonants**

5 x 5 varga consonants

<table>
<thead>
<tr>
<th>Letters</th>
<th>क ख ग घ ङ</th>
<th>TCV values</th>
<th>1 2 3 4 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letters</td>
<td>च छ ज झ ञ</td>
<td>TCV values</td>
<td>2 3 4 5 6</td>
</tr>
<tr>
<td>Letters</td>
<td>ट ठ ड ढ ण</td>
<td>TCV values</td>
<td>3 4 5 6 7</td>
</tr>
<tr>
<td>Letters</td>
<td>त थ द ध न</td>
<td>TCV values</td>
<td>4 5 6 7 8</td>
</tr>
<tr>
<td>Letters</td>
<td>प फ ब भ म</td>
<td>TCV values</td>
<td>5 6 7 8 9</td>
</tr>
</tbody>
</table>

**Other letters**

<table>
<thead>
<tr>
<th>Letters</th>
<th>य र र</th>
<th>TCV values</th>
<th>1 3 5 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letters</td>
<td>श ष स ह</td>
<td>TCV values</td>
<td>2 3 6 9</td>
</tr>
<tr>
<td>Letters</td>
<td>• ☞ ☞ ☛ ☛ ☛ ☛ ☛</td>
<td>TCV values</td>
<td>9 10 11 12 13 14 15 16</td>
</tr>
</tbody>
</table>

36. First letter of the text of Ganita Sutras is ‘ए’ (sixth vowel) of TCV value 6.
37. Artifices pair (16, 13) is parallel to TCV values pair of formulations (ॐ) and (ॐ)
38. Artifice value 29 is parallel to 29 archiks of Samved Samhita.
39. It is also parallel to 29 shlokas range of 5th chapter of Srimad Bhagwad Geeta.
40. Further it is also parallel to 29 shlokas Ardh Sholokas and Uvachas of the last / 13th chapter of Srimad Durga Saptsati.
41. The range (1, 2, 3, 4, 5, 6) gives rise to $2^3 = 32$ arrangements of value 6.
42. Text of Ganita Sutras as 8 bracketed letters of text of Ganita Sutra 6.
43. Text of Ganita Upsutra as 1 unmanifest letter (namely first vowel) in the text of Ganita Upsutra 8.
44. There are 520 (including 1 unmanifest letter) letters of the text of Ganita Sutras and Upsutras. The letters range $520 - 8 = 512 = 2^9$.
45. The range $(1, 2, 3, 4, 5, 6, 7, 8, 9, 10)$ precisely works out $2^9 = 512$ arrangements of values 10 each.

IV Transcendental code values range

46. Sequential tabulation of 16 Ganita Sutras and 13 Ganita Upsutras for their letters and transcendental code values ranges comes to be as under:

<table>
<thead>
<tr>
<th>Sn.</th>
<th>Sutra / Upsutra</th>
<th>Letters</th>
<th>Total Letters</th>
<th>Grand Total letters</th>
<th>TCV Value</th>
<th>Total TCV</th>
<th>Grand Total TCV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sutra-01</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>74</td>
<td>74</td>
<td>74</td>
</tr>
<tr>
<td>2</td>
<td>Sutra-02</td>
<td>28</td>
<td>44</td>
<td>44</td>
<td>107</td>
<td>181</td>
<td>181</td>
</tr>
<tr>
<td>3</td>
<td>Sutra-03</td>
<td>15</td>
<td>59</td>
<td>59</td>
<td>56</td>
<td>239</td>
<td>239</td>
</tr>
<tr>
<td>4</td>
<td>Sutra-04</td>
<td>17</td>
<td>76</td>
<td>76</td>
<td>51</td>
<td>288</td>
<td>288</td>
</tr>
<tr>
<td>5</td>
<td>Sutra-05</td>
<td>20</td>
<td>96</td>
<td>96</td>
<td>71</td>
<td>359</td>
<td>359</td>
</tr>
<tr>
<td>6</td>
<td>Sutra-06</td>
<td>19</td>
<td>115</td>
<td>115</td>
<td>66</td>
<td>425</td>
<td>425</td>
</tr>
<tr>
<td>7</td>
<td>Sutra-07</td>
<td>24</td>
<td>139</td>
<td>139</td>
<td>91</td>
<td>516</td>
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<tr>
<td>8</td>
<td>Sutra-08</td>
<td>16</td>
<td>155</td>
<td>155</td>
<td>68</td>
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<td>584</td>
</tr>
<tr>
<td>9</td>
<td>Sutra-09</td>
<td>16</td>
<td>171</td>
<td>171</td>
<td>59</td>
<td>643</td>
<td>643</td>
</tr>
<tr>
<td>10</td>
<td>Sutra-10</td>
<td>9</td>
<td>180</td>
<td>180</td>
<td>41</td>
<td>684</td>
<td>684</td>
</tr>
<tr>
<td>11</td>
<td>Sutra-11</td>
<td>14</td>
<td>194</td>
<td>194</td>
<td>58</td>
<td>742</td>
<td>742</td>
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<tr>
<td>12</td>
<td>Sutra-12</td>
<td>20</td>
<td>214</td>
<td>214</td>
<td>79</td>
<td>821</td>
<td>821</td>
</tr>
<tr>
<td>13</td>
<td>Sutra-13</td>
<td>20</td>
<td>234</td>
<td>234</td>
<td>80</td>
<td>901</td>
<td>901</td>
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<tr>
<td>14</td>
<td>Sutra-14</td>
<td>17</td>
<td>251</td>
<td>251</td>
<td>84</td>
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<td>15</td>
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<td>16</td>
<td>283</td>
<td>283</td>
<td>55</td>
<td>1096</td>
<td>1096</td>
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<tr>
<td>17</td>
<td>Upsutra-01</td>
<td>10</td>
<td>10</td>
<td>293</td>
<td>42</td>
<td>42</td>
<td>1138</td>
</tr>
<tr>
<td>18</td>
<td>Upsutra-02</td>
<td>18</td>
<td>28</td>
<td>311</td>
<td>74</td>
<td>116</td>
<td>1212</td>
</tr>
<tr>
<td>19</td>
<td>Upsutra-03</td>
<td>23</td>
<td>51</td>
<td>334</td>
<td>96</td>
<td>212</td>
<td>1308</td>
</tr>
<tr>
<td>20</td>
<td>Upsutra-04</td>
<td>21</td>
<td>72</td>
<td>355</td>
<td>92</td>
<td>304</td>
<td>1400</td>
</tr>
<tr>
<td>21</td>
<td>Upsutra-05</td>
<td>08</td>
<td>80</td>
<td>363</td>
<td>41</td>
<td>345</td>
<td>1441</td>
</tr>
<tr>
<td>22</td>
<td>Upsutra-06</td>
<td>18</td>
<td>98</td>
<td>381</td>
<td>85</td>
<td>430</td>
<td>1526</td>
</tr>
</tbody>
</table>
V  **TCV values range**

47. TCV values range ‘2046’ with its organization as 2024 + 16 + 6 shall be taking us to 2024 vargas range + TCV (अ) + TCV (ए)

48. One may have a pause here and permit the transcending mind to continuously remain in prolonged sitting of trans and blissfully be face to face with the transcendental feature of organization of Ganita Sutras and Ganita Upsutras as being of a cyclic order, as much as that the attainment of coverage of total range of Sakala Rigved Samhita as of 2024 vargas range, there has been fresh cyclic initiation for the Vedic Mathematics systems coming into play ‘अ, ए------’

VI  **Transcendental code values range and 1028 suktas range**

49. Transcendental code values range of Ganita Sutras text (16 Ganita Sutras text) comes to be of value ‘1096’.

50. One may have a pause here and take note that the text of Ganita Sutra 6 is having 8 bracketed letters text ‘आनुरूपेय’ with TCV (आनुरूपेय) = 34

51. Further as that the text of Ganita Sutra 8 accepts formulation ‘पूर्ण’ as ‘पूरण’.

52. This enhanced TCV value ‘2’ units is parallel to the transition from artifices of numbers to numbers themselves as parallel to a transition from dimension fold to domain fold.

53. Accordingly transcendental code values range 1096 after accounting for 34 units for bracketed letters of Ganita Sutra 6 and 2 units for enhanced value for the formulation ‘पूर्ण’ as ‘पूरण’ and further after accounting for 32 arrangements of range ‘1, 2, 3, 4, 5, 6’ as value 6, shall be reaching at value range 1028 which is parallel to 1028 suktas range of the Sakala Rigved Samhita.

54. One may have a pause here and permit the transcending mind to continuously remain in prolonged sitting of trans to be face to face with these organizational features and to acquire insight about the Vedic basis of Ganita Sutras Mathematics as the Vedic systems basis Mathematics.
VI  Ten Mandal organization

55. TCV (मंडल) = 9 + 1 + 7 + 5 + 1 = 29, which is parallel to the organization feature of Ganita Sutras and Upsutras being precisely 29 in number.
56. Sakala Rigved Samhita is of the range of ten mandals.
57. The artifices range (1, 2, 3, 4, 5, 6, 7, 8, 9, 10) yields 2^9 = 512 which is parallel to 512 expressed letters of the text of Ganita Sutras and Upsutras (other than 8 bracketed letters of Ganita Sutra 6 and 1 unmanifest letter of Ganita Upsutra 8.

VII 8 Austaks and artifice 8

58. Sakala Rigved Samhita is the organization of the range of 8 austaks.
59. TCV (एक) = 8
60. There are precisely 8 bracketed letters as part of the text of Ganita Sutra 6.
61. Surface format is sustainable in terms of 8 directional frame
62. 3-space splits as 8 octants.
63. Solid boundary of hyper cube 4 is a synthetic set up of 8 solid components.
64. One may have a pause here and permit the transcending mind to continuously remain in prolonged sitting of trans and to glimpse the features of 8 fold nature as organization format for Brahman domain.
65. One may further have a pause here and be face to face with the features of artifices pair (8, 9) which permits re-organization as (2^3, 3^2), which is of the format of vertical reflection pair as here base and index swap their places.

VIII 64 chapters organization of Rigved Samhita

66. First pair of letters (ए, कृ) and parallel format beneath of 6-space as domain fold, 4-space as dimension fold leads us to the parallel format of artifice 64.

IX 85 Anuwaks range of Rigved samhita

67. 85 Anuwaks range of Rigved samhita is parallel to the set up of a transcendental (5-space) domain within the solid dimensional frame of five solid dimension wrapped within creative boundary (4-space as boundary of ten components, each of which is further enveloped by 8 solid components and thereby this organization being of the range of 8 x 10 + 5 = 85 units.

X 1028 Suktas organization of Rigved Samhita

68. 1028 Suktas organization of Rigved Samhita is parallel to 1028 TCV values unit (other than 34 TCV units of 8 bracketed letters of Ganita Sutra 6, to enhanced values unit of formulation Purnam and 32 arrangements of value
10 for number 6), out of 1096 TCV value unit of the text of 16 Ganita Sutras.

XI 2024 vargas range of Rigved Samhita

69. 2024 vargas range of Sakala Rigved Samhita is parallel to 1024 TCV values units (other than 16 TCV values units of source formulation ए and 6 TCV value units of first letter (ए) as fresh initiation for the Ganita Sutras) out of 2046 TCV values units range of total text of 16 Ganita Sutras and 13 Ganita Upsutras.

XII 432000 syllables range of Rigved Samhita

70. The working rules of Ganita Sutras come into play to chase the organization of 432000 syllables organized as 10552 richas with each richa having its specific rishi, Devta, chandas and Swara. This is the real applications range of Ganita Sutras which make it Vedic Ganita Sutras.

71. The title गणित सूत्राणि: is of TCV (गणित सूत्राणि:) = 56 which accepts re-organization as 56 = 28 + 28, which is parallel to the format of pairing of Braham with itself as (ब्रह्म, ब्रह्म).

72. One may have a pause here and take note that artifices pair (6, 28) is perfect numbers pair (6 as first perfect number and 28 as second perfect number).

73. Beginning with first perfect number (6) and reach uptill second perfect number (28), is in a way a reach from 3 proper divisors of first perfect number (6) to 5 proper divisors of second perfect number (28).

74. This way artifices pair (3, 5) is a reach parallel to the format (3-space as dimension, 5-space as domain).

75. Artifices pair (3, 5) is also parallel to grid / matrix format of three rows and five columns accommodating double digit numbers of four place value system.

76. Further, it leads to a chase format of solid order within creator’s space (4-space) with transcendental (5-space as origin).

77. It leads to the foundation format of Vedic Systems permitting symbolic expression as under, of the degree of freedom of motion of 12 edged cube manifesting as its 13th edge leading to coordination with the transcendental origin of creator’s space (4-space) which is of a spatial order and thereby there being a split at the origin as northern hemisphere of placement value 17 and southern hemisphere of placement value 19:
78. This coordination format with end values (13, 19) within spatial order space for transcendental origin (5-space) of hyper cube 5 format with creative boundary of ten components making out a format for ten place value system and thereby the value 10 x 10 = 100 as the coordination value making out artifice value (1319).

79. Further here it would be relevant to note that 8 x 1319 = 10552.

80. One may have a pause here and take note that the artifice value 10552 is parallel to the organization of 10552 richas of Sakala Rigved Samhita.

81. Further here it also would be relevant to note that the super imposition of solid order upon transcendental (5-space) domain shall be leading us to super imposed set up of value (3 + 5) + (3 x 5) = 23 = TCV (सहस्र). The simple English rendering for ‘सहस्र’ is thousand.

82. As such the chase at next place value, i.e. at place value $10^3$ as a unit place value shall be leading to sequential four steps value within creator’s space (4-space) to be of the value ‘432000’, which is parallel to the range of 432000 syllables of Sakala Rigved Samhita.

XIII Rishi, Devta, Chandas and Swara formats

83. The further chase of the organization of Sakala Rigved Samhita, as such is to be in terms of the features of ‘Rishi, Devta, Chandas and Swara formats’.

84. These four folds formulations ‘ऋषि / Rishi, देवता / Devta, छन्द /Chandas and स्वर / Swara formats’ deserve to be chased for their transcendental code values comes to be.

TCV (ऋषि) = 12, TCV (देवता) = 26, TCV (छन्द) = 22, TCV (स्वर) = 15

85. This set of quadruple values (12, 26, 22, 15) as such shall be leading to their parallel formats as that

i. Hyper cube 6 is enveloped with a transcendental boundary of 12 components

ii. Transcendental order manifestation layer (5, 6, 7, 8) is of summation value $5 + 6 + 7 + 8 = 26$

iii. Creative order manifestation layer (4, 5, 6, 7) is of summation value $4 + 5 + 6 + 7 = 22$

iv. Solid order transcendental frame is of value $1 \times 3 \times 5 = 15$

86. This, that way leads us to the four fold manifestation layers formats of hyper cubes being the sequential manifested dimensional bodies of which hyper cubes 1 to 6 synthesize Sathapatya measuring rod, whose chase is to be initiated in terms of the working rule of ‘one more than before’ of Ganita Sutra 1.
87. The chase so initiated will help us comprehend and appreciate the sequential TCV values organization formats of text of Ganita Sutras.
88. The sequential organization format of TCV values of first Ganita Sutra comes to be:
   (6, 4, 2, 7, 2, 4, 6, 8, 1, 5, 6, 2, 7, 6, 7, 1) with summation value 74.
89. One may have a pause here and take note that in terms of the formats of artifices of TCV values of 16 letters of the text of Ganita Sutra 1, the text of Ganita Sutras 1 to 16 can be sequentially chased.
90. For pure and applied values of Ganita Sutras and Upsutras, we may follow the sequential organizations of texts of Ganita Sutras availing the parallel structural features of hyper cube 6 as TCV values range (6, 4, 2, 7, 2, 4, 6, 8, 1, 5, 6, 2, 7, 6, 7, 1).
91. It would be a blissful exercise to be face to face with emerging domain of transcendental domain of pure and applied values of गणित सूत्राणि: / Vedic Mathematics Sutras.

**XIV Polygons format**

92. One way to chase values of Ganita Sutras is along polygons format. The spatial order at dimension of dimension level of 6-space shall be leading us to hexagon format.
93. As 4-space plays the role of dimension of 6-space, as such a set of four hexagons would be required to net the origin as center of the pentagon.
94. The organization of 16 Sutras and 13 Upsutras as a set of four hexagons and one pentagon will lead us to TCV values of Ganita Sutras 1 to 3 and of Ganita Upsutras 1 to 3 to be the values for vertices of first hexagon.
95. Likewise values of Ganita Sutras 4 to 6 and of Ganita Upsutras 4 to 6 to be the values for the vertices of second hexagon.
96. Values for third hexagon would be the values of Ganita Sutras 7 to 9 and of Ganita Upsutras 7 to 9.
97. Values of fourth hexagon would be the values of Ganita Sutras 10 to 12 and of Ganita Upsutras 10 to 12.
98. Finally, the values of Ganita Sutras 13 to 16 and of Ganita Upsutra 13 would be the values of vertices of pentagon.
99. This as such shall be leading us to values range (449, 406, 454, 351, 387) with summation value 2046 standing embedded as values 360 at each of the five vertices of the pentagon and remaining value 246 at center of the pentagon.
100. One may have a pause here and take note that artifice 246 avails triple digits (6, 4, 2) which is parallel to the format of (6-space as domain, 4-space as dimension and 2-space as dimension of dimension).

101. It would further be relevant to note that the triple digits (6, 4, 2), with summation value $6 + 4 + 2 = 12$ is parallel to TCV values of triple letters of the formulation (ऋणि), i.e. (i) ऋ (ii) ण (iii) इ,

102. Still further it would be relevant to note that $6 \times 4 \times 2 = 48$ is the value parallel to the dimensional order of 6-space and like that further chase will further enlighten us about mathematical domain of Ganita Sutras.

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