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 73

Happy & Blissful New Year

Happy New Year. Let new year blissfully attained new intellectual heights for everyone.

Year 2014 has played initial foundations for revival of Ancient Wisdom of Vedic mathematics, Science & Technology. Let year 2015 lay proper foundations for the Vedic mathematics, Science & Technology University.

Let us all connect ourselves with the origin source reservoir of our universe. Let us revisit our Existence Phenomenon. Let us revisit Ancient Wisdom of Vedic mathematics, Science & Technology of Earth to Sun range. Let us revisit Pole Star as origin of our solar universe.

Let us have a fresh start for learning Vedic mathematics, Science & Technology beginning with 'Devnagri alphabet itself'. Let us aim to read Vedas written on Rays of the Sun.

Let us revisit our body. Let us comprehend and appreciate Shad Chakras format of our body. Let us permit our mind to continuously remain in prolonged sittings of trans and to attain transition and transformation for Shad Chakras format into ten transcendental (5-space) chakras format.

We, the organizers, wish you all again, happy and blissful new year.

Organizers

Vedic mathematics, Science & Technology

1. We, hereby appeal everybody to pool their experience and wisdom for establishing Vedic mathematics, Science & Technology University during this year: 2015.
2. VMS & T University concept source themes are: (i) Vedas are written on rays of the Sun. (ii) Anahat Nad and Braham Jyoti are basic values and virtues.
3. Sankhiya Nishtha and Yoga Nishtha are two established processing processes.
4. Sakala Rigved Samhita is the source scripture which is available with us form its first syllable to its last syllable.
5. The organization formats and systems of Sakala Rigved Samhita can be availed for revival of whole range of Vedic values and virtues.
6. Vedic Systems which have been in dormant state for many centuries, same can be revived and made lively.
7. The origin source reservoir of our existence Phenomenon within solar universe of Earth to Sun range with pole Star as its origin can be reworked out with each bit of needed details by availing organization format and systems of Sakala Rigved Samhita itself.
8. VMS & T University, as such is to be explorative university.
9. In addition, VMS & T University shall be having the responsibility to disseminate Ancient Wisdom.

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

VMS & T Project
School Text Books
(Class IX, X, XI & XII)
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VMS & T Text Book Class IX
(3-space)

Outline of lessons 9, 10, 11 & 12

Chapter 9 Three place value system

1. Ganita Sutra 2 settle the format of place values systems..
2. This format is settled in terms of the range of numerals of the place value systems.
3. Ganita Sutras 1 and 2 together with Ganita Upsutras 1 and 2 lay foundation for settlement of whole range of place value systems.
4. The working rule of Ganita Sutra 2 'all from 9 and last from 10', is specifying the operational rule of ten place value system.
5. Ganita Upsutra – 1 with working rule of 'proportionately / symmetry' / follow the form as it is.
6. Lay the foundation for whole range of place value systems.
7. Illustratively, in case 9 placement value format is to be settled, then parallel to 9 numerals range (1, 2, 3, 4, 5, 6, 7, 8, 9) of ten place value system, this range is to be of eight numerals (1, 2, 3, 4, 5, 6, 7, 8) for 9 place value system.
8. Like that in case of three place value system numerals range would be (1, 2) only.
9. The double digit numbers expression format for ten place value system would be of 9 x 11 grid / matrix format:

Table of ten Place value system

01	02	03	04	05	06	07	08	09
10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27
28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45
46	47	48	49	50	51	52	53	54
55	56	57	58	59	60	61	62	63
64	65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80	81
82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99

10. The double digit numbers values expression for three place value system would permit expression along grid / matrix format (2, 4) as under

Table of three Place value system

01 02
10 11
12 20
21 22 100

11. It would be a blissful exercise to reach at expression formats for 4, 5, 6, 7 and 8 place value systems which would be of the following expression features:

Table of four Place value system

01 02 03
10 11 12
13 20 21
22 23 30
31 32 33 100

Table of five Place value system

01 02 03 04
10 11 12 13
14 20 21 22
23 24 30 31
32 33 34 40
41 42 43 44 100

Table of six Place value system

01 02 03 04 05
10 11 12 13 14
15 20 21 22 23
24 25 30 31 32
33 34 35 40 41
42 43 44 45 50
51 52 53 54 55 100

Table of seven Place value system

01 02 03 04 05 06
10 11 12 13 14 15
16 20 21 22 23 24
25 26 30 31 32 33
34 35 36 40 41 42
43 44 45 46 50 51
52 53 54 55 56 60
61 62 63 64 65 66 100

Table of eight Place value system

01 02 03 04 05 06 07

10	11	12	13	14	15	16
17	18	19	20	21	22	23
26	27	28	29	30	31	32
35	36	37	38	39	40	41
44	45	46	47	48	49	50
53	54	55	56	57	58	59
62	63	64	65	66	67	68
71	72	73	74	75	76	77

12. Two place value system, popularly known as binary system avails pair of numerals (1, 0) with '0' being the place value (numeral).
13. Two place value system shall be having double digits expression ad under:

    00 01
    10 11 100
14. The numerals range (1, 0) are (0, 1) is also designated as remainder range of divisor '2'.
15. In case of three place value system, the remainders range comes to be (0, 1, 2).
16. Pingala Chandas Vedanga is basic scripture which works out 3-space within three dimensional frame in terms of binary system
17. Chandas Vedanga settles 8 Ganas as under

(i)	Magana (SSS)	(viii)	Nagana (111)
(ii)	Yagana (1SS)	(vii)	Bhagana (S11)
(iii)	Ragana (S1S)	(vi)	Jagana (1S1)
(iv)	Tagana (SS1)	(v)	Sagana (11S)

18. The pair of symbols being availed are of single and double values format parallel to single and pair of axes to work out 3-space within 3 dimensional frame as a set up of 8 octants.

(i)	Magana (□□□)	(viii)	Nagana (−−−)
(ii)	Yagana (−□□)	(vii)	Bhagana (□−−)
(iii)	Ragana (□−□)	(vi)	Jagana (−□−)
(iv)	Tagana (□□−)	(v)	Sagana (−−□)

19. It in a way amounts to numerals pair (1, 2). Formatted single pair (1, S) are accepted as the pair of symbols for short vowels, long vowels / values pair (1, 2) geometric entities pair (line, plane) dimensional orders (linear, spatial) the symbolic expression with their scriptural designation and nomenclatures.

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Chapter 10 Different roles of 3-space

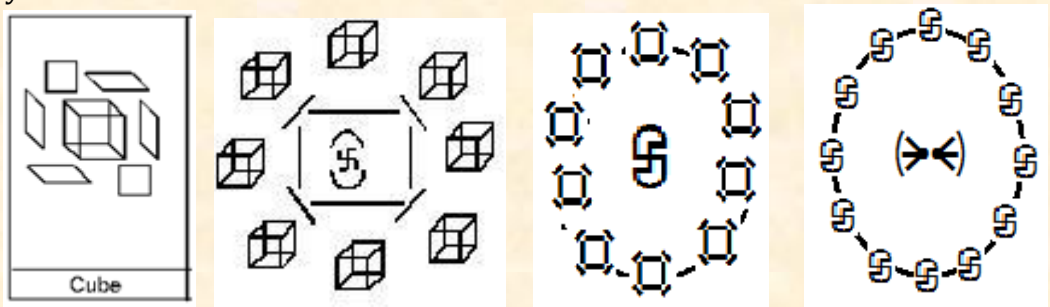
1. The manifestation format is of four folds:
   (i) Dimension fold (ii) Boundary fold
   (iii) Domain fold (iv) Origin fold
2. Cube has following four folds
   (i) Linear axis as 1-space in the role of domain fold
   (ii) Spatial boundary, 2-space in the role of boundary
   (iii) Solid domain, 3-space in the role of domain fold
   (iv) Origin has a seat of 4-space / origin fold
3. The above set up of cube is focusing the role of 3-space as domain fold.
4. This four fold set up of cube accepts expression as quadruple artifices of numbers (1, 2, 3, 4).
5. 3-space as domain fold is one of the roles of 3-space.
6. The other roles of 3-space are as dimension fold, boundary fold and origin fold.
7. The role of 3-space as origin fold permits chase in terms of quadruple artifices as (0, 1, 2, 3).
8. This is four fold expression for square (as hyper cube 2).
9. Here it would be relevant to note that 0-space plays the role of dimension of 2-space.
10. 1-space plays the role of dimension of 2-space.
11. 2-space plays the role of domain fold,
12. And 3-space plays the role of origin fold of hyper cube 2.
13. 3-space has boundary fold permits chase in terms of quadruple artifices expression (2, 3, 4, 5)
14. In this reference 2-space plays the role of dimension.
15. 3-space plays the role of boundary
16. 4-space plays the role of domain, and 5-space plays the role of origin.
17. Further 3-space also plays the role of dimension of hyper cube 5 permitting expression as (3, 4, 5, 6).
18. In this context, 3-space plays the role of dimension.
19. 4-space plays the role of boundary.
20. 5-space plays the role of domain and 6-space plays the role of origin.
21. Here it would be relevant to note that all the four roles of 3-space there can be a common expression format (4 x 4) grid format as under:

1	2	3	4
2	3	4	5
3	4	5	6
4	5	6	7

22. Let us have a pause and revisit above 4 x 4 format expression for the roles of 3-space.
23. Amongst others, the prominent feature of above expression format comes to be that the north east diagonal of above 4 x 4 format is having value 3 at its all points.

Chapter 11 Cube and Sphere

1. Cube and sphere are a pair of (representative regular bodies) of 3-space.
2. Regular bodies 1 which does not distinguish 1 dimension from another for its contributory role in the structural set up of the dimensional bodies under the given dimensional frame.
3. Cube and sphere do not distinguish between the contributory role of the dimensions of a three dimensional frame, and as such these are designated as representative regular bodies of 3-space within a three dimensional frame.
4. Amongst others, one other prominent features of the set ups of cube and sphere is that they accept common domain boundary ratio.
5. The domain boundary ratio of cube is $A^3:6B^2$.
6. Likewise the domain boundary ratio for sphere as well is $A^3:6B^2$.
7. One may have a pause here and take note that the while in case of cube, its boundary splits into six parts, while the boundary of sphere is a single integrated surface set up.
8. The common domain boundary ratio for both cube and sphere, as such brings us face to face with the feature as that domain fold of sphere permits split into six parts.
9. It is this feature which distinguishes the set ups of cube and sphere and makes them a distinct pair of representative regular bodies of 3-space within three dimensional frame.
10. One may have a pause here and take note that square and circle are also a pair of representative regular bodies of 2-space and they as well accept common domain boundary ratio $A^2:4B^1$.
11. The above domain boundary ratios of 2-space and 3-space regular bodies lead us to common formulation $A^n:2n\ B^{n-1}$, n=2, 3.
12. This as such leads to a common formulation for all values of n in respect of representative regular bodies of whole range of spaces.
13. It would be a blissful exercise to comprehend and appreciate domain boundary ratios in case of n=4, 5 and 6 respectively in reference to representative regular bodies of 4, 5 and 6 spaces.
14. (Hyper cubes 4, 5, 6) domain boundary ratio in respect of hyper cube 4 / 4-space body comes to be $A^4: 8B^3$.
15. Further (Hyper cubes 4, 5, 6) domain boundary ratio in respect of hyper cube 5/ 5-space body comes to be $A^5: 10B^4$.
16. Still further (Hyper cubes 4, 5, 6) domain boundary ratio in respect of hyper cube 6 / 6-space body comes to be $A^6: 10B^4$.
17. Symbolic expression for these features in respect of hyper cubes 3, 4, 5 and 6 may be as under.



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Chapter 12 Triloki and Trimurti

1. *Triloki and Trimurti*

Hyper cubes 1 to 3 synthesise the set up of *Triloki* while hyper cubes 4 to 6 are designated and known as formats of *Trimurti : Lord Brahma, Lord Shiv* and *Lord Vishnu*. *Lord Brahma* is the presiding deity of 4-space with the hyper cube – 4 being its representative regular body and *Lord Shiv* and *Lord Vishnu* are the presiding deities of 5-space with hyper cube 5 as its representative regular body and 6 - space with hyper cube 6 as its representative regular body.

2. Comparative table of idol of Trimurti & hyper cube 4, 5& 6

Idol of lord Brahma, four head lord, creator the supreme, is of the features parallel to that of hyper cube 4, which may be tabulated as under:

Sr.	Feature of idol of lord Brahma	Feature of hyper cube 4
1	Four heads	Four dimension
2	Each head equipped with A pair of eyes.	Spatial dimensional order (2-space in the role of dimension)
3	Lotus seat of eight petals	Solid boundary of eight components
4	Seat of lord shiv (five head lord) in the Heart of lord Brahma	5-space in the role of origin fold
5	Lord Brahma meditates in His heart upon Lord Shiv and multiplies as ten brahmas	Hyper cube 5 has creative boundary (4-space in the role of boundary) of ten components

3. Idol of lord Shiv, five head lord, transcendental lord, is of the features parallel to that of hyper cube 5, which may be tabulated as under:

Sr.	Feature of idol of lord Shiv	Feature of hyper cube 5
1	Five heads	Five dimension
2	Each head equipped with Triple eyes.	Solid dimensional order (3-space in the role of dimension)
3	Ten beautiful arms	Hyper Solid boundary of ten components
4	Seat of lord Vishnu (six head lord) in the Heart of lord Shiv	6-space in the role of origin fold
5	Lord Shiv transcends and manifests DwadashAditya (Twelve sons)	Hyper cube 6 has transcendental boundary of 12 components

4. Idol of lord Vishnu, six head lord, self referrallord, is of the features parallel to that of hyper cube 6, which may be tabulated as under:

Sr.	Feature of idol of lord Vishnu	Feature of hyper cube 6
1	Six heads	Six dimension
2	Each head equipped with Quadruple eyes.	Hyper Solid 4 as dimensional order (4-space in the role of dimension)
3	DwadashAdityas (12 sons)	Transcendental boundary of ten components
4	Seat of lord Shiv (five head lord) in the Heart of lord Vishnu	5-space in the role of dimension of origin fold
5	Lord Vishnu transcends and manifests as 14 Bhuwans	Hyper cube 7 has self referral boundary of 14 components

CHASE OF TRILOKI FEATURE

I

Conceptual formulation

1. 'Triloki' त्रिलोकीः is a Sanskrit formulation.
2. 'Triloki' accepts simple English rendering as 'unified 3-spaces'.
3. The formulation 'Triloki' is a composite formulation of a pair of sub formulation namely 'Tri (त्रि)', means three andloki 'लोकीः' namely space (s) here in 'ई', spatial order.
4. With it the formulation 'त्रिलोकी' acquire feature of both (i) 3 as triple (1, 2, 3) and (ii) Space (s)
5. Here it would be relevant to note that NVF (three) = 56 = NVF (Light) and NVF (Space) = NVF (Eye) + NVF (Ace)
6. The formulation 'Ace' is of features parallel to artifices triples '1, 3, 5' which further is parallel to spaces triple (1-space, 3-space, 5-space) which still further is parallel to the artifices triple (n, n + 2, n + 4). This is still further parallel to dimension of dimension, dimension, domain. Hence formulation 'space' is of features 'eye' transcendence taking from dimension of dimension to dimension to domain.

II

Transcendental code value chase

7. त्रि–लोकीः
   त् र िलो क् ई ः
8. त् र ि ल् ो क् प्र
   4+1+2=7 5+7+1+1=14
   7+14 =21
   = 1+2+3+4+5+ 6
9. त् र ि ल् ो क् ई
   4+1+2=7 5+7+1+4=17
10. त् र ि ल् ो क् ई ः
    4+1+2=7 5+7+1+4 + 13=30
    7+17 = 24 = 4 x 6
11. 4+1 + 2 =7 5+7+1+4+13=30
    7 + 30 = 37
12. [7, 14, 17, 30]
    [21, 24, 37]

i. 7 = 7 edges
ii. 14=8 corners + 6 surfaces
iii. 17 = 7 edges + 10 directions
iv. 30 = 8 corners + 6 surfaces
    = 12 edges + 3 axes
    + 1 volumme
v. 21 = 1 + 2+3+4+5+6
    (21, 12) =33
    = 1 x 3 x 7
vi. 24 = 4 x 6 = (5-1) (5+1)
    (24, 42) = 66 = (33, 33)
vii. 37 = 7 geometries range of 3 space

III

NVFs

13. Three space
    a. 20 + 8 + 18 + 5 + 5 = 56 = (Light)
    b. 19 + 16 + 1 + 3 + 5 = 44 = (Ray)
    c. 56 + 44 = 100 = (Discipline)
14. Three / Light / Domain
    (56, 65) = 121 = (Unification)
15. Space / Ray / Pair
    44 = (22, 22)
    = (go, go)
    (44, 44) = 88 = (Volumme)

IV

Features chase formats

16. Artifice 3
    Number 3
17. (3, 5) = 3 + 5 = 8 = 2^3
    Superimposition of dimension fold and domain fold
18. (1, 1, 1) = 6
    Dimensional synthesis value
    1+2 +3 = 6
19. (single axis, pair of axes, triple axes) / triple axes sequence
    (1, 2, 3)
    (Interval, square, cube)
    (1-space, 2-space, 3-space)
20. Triples sequences
    (1, 2, 3)
    (0, 1, 2)
    (n, n-1, n-2)
    (n, n+1, n+3)
21. Triples of different values

N, n+r, n+l

N^0, $(n+r)^0$, $(n+l)^0$

1, 1, 1

22. Types of intervals
    i. Single point fixation
    ii. Double point fixation
    iii. Triple point fixation
23.
    i. close interval
    ii. open interval
    iii. half open interval
        a. open on left side
        b. open on right side
24. Types of lines
    i. Line without bend
    ii. Line with single bend
    iii. Line with double bend
    iv. Line with multiple bends
25. Vertices
    i. Single vertices, just a point
    ii. Pair of vertices, as end points of n interval
    iii. Triple vertices, as vertices of a triangle (polygon of three sides)
    iv. Quadruple vertices as vertices of a rectangle (polygon of four sides)
    v. Polygons of n sides
26. Points and length units
    a. Three points on a line enclose a pair of length units
    b. In general n points enclose (n-1) length units on a line
    c. Three points on a circumference enclose three units of circle
    d. In general n points on a circumference enclose n units of circumference
27. Interval, square and cube
    i. Ends point / corners triple 2^1, 2^2, 2^3,
    ii. Boundary components triple (2, 4, 6)
    iii. Domains values triples (1^1,1^2, 1^3)
    iv. Dimensional axes triple (1, 2, 3)

v. Geometric set up triple (3, 9, 27)
vi. Set up triples formulation $(n+2)^1$, $(n+2)^2$, $(n+2)^3$

28. Chase steps triple within three space
a. Interval, square and cube within a cube.
b. This constitutes an ad-infinitum sequence chase of volumme of a cube / domain fold of cube as hyper cube 3

29. Internal diagonal
a. A line passing through center of the cube and connecting a pair of vertices of cube is an internal diagonal of the cube
b. There are four internal diagonal of a cube
c. The internal diagonal are of a pair of orientations
d. Set up of an internal diagonal is the setup of super imposition of a pair of orientations. This set up of super imposition of a pair of orientation is the set up of super imposition of dimension fold (-1 space as dimension) upon domain fold (1-space as domain fold).
e. The dimension fold and domain fold super imposition in this case sandwiches zero space as boundary folds of hyper cubes
f. These three folds (dimension fold, boundary fold and domain fold) are sustained by the origin fold, which is of a spatial order
g. The spatial order is fountained from the origin of 3-space / center of cube which is a seat of 4-space.
h. These feature together will help us comprehend the existence of four internal diagonals being there because of the spatial order set up of the center of the cube

30. Split of a three dimensional frame into a pair of three dimensional frame
a. It would be a blissful exercise to chase the split of a three dimensional frame into a pair of three dimensional frame of half dimensions.
b. Still further it would be a very blissful exercise to chase the split of the internal four diagonals into four pairs of half diagonals.
c. Still further it would be a very blissful exercise to chase the split of three dimensions of a three dimensional frame embedded at the center of the cube and simultaneous manifesting of six surface plates at boundary of the cube

d. Still further it also would be a very blissful exercise to chase the split of volumme part / domain part of cube in terms of three planes sustaining three dimensional axes
e. Still further it also would be a very blissful exercise to chase of the three dimensional frames of half dimensions embedded in all the eight corner points of the cube.

V

Race

31. Formulation (RACE) is of NVF value 27 = NVF (Race).
32. NVF (R) = 18 = NVF (Head).
33. Artifice 18 accepts re-organization as 18 = 3 + 4 + 5 + 6 and quadruple (3 + 4 + 5+ 6) is parallel to manifestation layer (3, 4, 5, 6) / (3-space, 4-space, 5-space, 6-space) features of hyper cube 5.
34. NVF (A) = 1, NVF (C) = 3 and NVF (E) = 5 as triple (1, 3, 5) is parallel to artifices triple (n, n+2, n +4) which further is parallel to spaces triple (n-space, n+2 space, n + 4 space and this triple is parallel to the features of (n-space as dimension of dimension), n+2 space as dimension and n + 4 space as domain) with this , there is a reach from dimension of dimension to domain fold.
35. These features in respect of triple (a, c, e) / (1, 3, 5) leads us to a reach from 1-space as dimension of dimension, 3-space as dimension and 5-space as domain.
36. One may have a pause here and be face to face with NVF (Space) = NVF (sp) + NVF (ace).
37. NVF (sp) = 19 + 16 + 35 = NVF (eye) would help us reach at, amongst other, at the following features
    i. 19, 18, 17, 16 is a quadruple in reverse orientation. The value 19 + 16 = 18 + 17 = 35, as such leads us to quadruple summation value = 19 + 18 + 17 + 16 = 35 + 35 = 70 = NVF (Stop) = NVF (Eye) + NVF (Eye). Still further NVF (Ace)= 1 + 3 + 5 = 9 leads to triple (1, 3, 5), a transcendence triple as it leads from 1-space to 3-space to 5-space as a pair of transcendence steps.
    j. The formulation ‘head’, ‘race’ and ‘space’ deserve to be chased simultaneously to have comprehension about (i) head (ii) eye (iii) transcendence triple (a, c, e), (iv) ace), (v) race and (vi) space.

It would be a blissful exercise to tabulate various words from orthodox vocabulary with formulation 'ace' being sub formulation of bigger formulations and to chase features

VI

External and internal six surfaces frames of cube

38. Number six is a perfect number. It is the first perfect number.
39. 6 = 1 + 2 + 3 = 1 + 2 + 3 = 2 + 2 + 2 = 3 + 3 and parallel to it primes triple (1, 2, 3), triple linear axis of three dimensional frame, set of six half dimensions, set of six surface plates of cube and set of six spatial formats for six half dimensions of a three dimensional frame and center of the cube, all deserve to be chased simultaneously.
40. It would be a blissful exercise to revisit spatial formats for three axes, there splits into six parts and further split for each part in four quarters and every quarter being of a pair of faces (surfaces)
41. Still further it also would be blissful to revisit cut of a cube into eight sub cubes
42. The chase of structural set ups of a eight sub cubes individually as well as collectively and further chase of 3s` content lumps of each of eight sub cubes, individually and collectively, being completely stripped off, of their internal and external frames

VII

Chase formats

43. Amongst others, the following chase formats are of prominently at play in the set ups of the volumme (domain fold) / (3-space content lump) of cube, sub cubes and sub cubes of each sub cube:
    i. Format of an interval, a fixation in terms of a single but a moving point
    ii. Format of an interval fixation in terms of a pair of end points. The pair of orientations with end points becoming first and

second, and super imposition of orientations along the set up within pair of end points, that way, may make it a distinct format

iii. Format of an interval fixation in terms of three points namely a pair of end points and a middle point in between.

iv. The above format with a focus upon its different formats shall be manifesting different types of formats which may be taken as a class of formats associated with the format of an interval having fixation in terms of triple points

v. Amongst others, the formats of above class may be making the following specific featured formats being distinct formats:
   a. Middle point being a moving point but never reaching either end point.
   b. Bend provided at the middle point.
   c. Split of internal in two parts namely from first end point to the middle and from middle to the second end point
   d. From the first end point to the middle and from the second end point to the middle
   e. From the middle to the first end point and from the middle to the second end point
   f. Both parts may be equal, or may be unequal.
   g. Both parts to be simultaneously unequal as well as equal; unreality may be because of length and equality to be because of infinite number of points structuring each part

vi. The chase of such formats may be along place value systems, prominently amongst them being 10 place value system.

44. Amongst others, the following features may be structuring different classes of formats for chase of different classes of format of intervals in terms of place value system:
   a. Reach to be as (1, 1, 1, 1)
   b. Reach may be as (1, 1+1, 1+1+1, 1+1+1+1, ---). This may be taken as a feature of chase steps (1, 2, 3, 4, ---)
   c. Reach may be as (1, 2, 4, 8, --) as well of the feature of (1, 2, 3, 4, ---) as $2^0 = 1$, $2^1 = 2$, $2^2 = 4$, $2^3 = 8$, ---- as such shifting chase sequence (1, 2, 3, ---) and base to at index with the only difference that here the later stage the sequence steps include 'zero' as a starting point and the sequence at index become (0, 1, 2, 3, ---)

45. Reach may be as (01, 02, 03, --- 10) which shall be making the end values pair (01, 10) as a reflection pair as much as that 01 and 10 become object, image pair). Here 0 and 1 replace their places
46. Reach may be as (10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0) as a decreasing sequence while the reach as 0, 1, 2, 3, - - 10 is an increasing sequence.
47. Reach may be as (1, 3, 5, ---) as a reach by a single jump at each step parallelly would emerge another jumping sequence (2, 4, 6, 8, --). This pair of jumping sequences (1, 3, 5, ---) and (2, 4, 6, --), in a way would be a split for the increasing sequence (1, 2, 3, 4, 5, 6). Parallel to it there would be a split for decreasing sequence (10, 9, 8, 7, ---) as a pair of decreasing sequences (10, 8, 6, --) and (9, 7, 5, ---)
48. Further there can be triple split increasing sequences of double jumps for the increasing sequence (1, 2, 3, 4, 5, 6, --) as (i) 1, 4, 7, --) (ii) 2, 5, 8, --- and (3, 6, 9, --). Likewise there would a triple split for decreasing sequence (10, 9, 8, 7, --). Further there can be splits of sequentially increasing multiple jumps. This as such as shall be leading us to the remainder ranges for divisions by 2, 3, 4, --- (0, 1), (0, 1, 2), (0, 1, 2, 3)
49. The individual features of members of increasing sequence (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10) and pairing of those features for any pair, triple, quadruple members of above sequence members , shall be manifesting different classes of formats, viz.
    a. 01, 10 is a reflection pair
    b. 1,2 is a pair leading to a pair of sequences namely (1, 2, 3, 4) and (1, 2, 4, 8)
    c. Pair (1, 3) leads to 3= 1+1 – (-1), a dimensional synthesis value of a pair of linear dimensions
    d. (1,4) a pair hyper cube 1 and quadruple of folds of its manifestation layer
    e. (1, 5) a pair of hyper cube` 1 and transcendental which takes uptill the base of origin folds
    f. Like that there can be chase for any pair of numbers in terms of numerals of ten place value system and in general in any place value system

VIII

Sequential manifesting of hyper cubes 4, 5

and 6 set ups within and outside domain folds

50. Here, the volumme of cube.
51. The external manifestation of hyper cube 4 onwards is the features of spatial boundary of cube
52. The internal manifestation of hyper cube 4within cube is the feature of linear order transiting and transforming as spatial format taking to center of cube / origin of 3-space.
53. The spatial format of linear axis, as such is having a degree of freedom of motion and this as such shall be structuring 3-space set up and boundary. The second face, as a second phase, being of an opposite orientation shall be creating, on its motion availing degree of freedom of motion shall be constructing and structuring a solid boundary.
54. Such structuring of a pair of solid components, would deserve a chase for their coordination in terms of 0-space role of dimension of 2-space (spatial format) of a linear dimension.
55. The availability of four internal diagonal, as such shall that way structure out four pairs of above format of pair of solid boundary components.
56. It would be relevant to note that each internal diagonal coordinates a pair of three dimensional frames of half dimensions embedded in corner of the cube. The super imposition of pair of orientations synthesizing as diagonal as such shall be making available a pair of three dimensional frame of half dimension but of opposite orientation super imposed with common origins super imposed upon corner of the cube. These features taken together shall be leading to a set up of four pairs of three dimensional frames of full dimensions and parallel to it there would emerge a solid boundary of 8 components.
57. Here it also would be relevant to note that set of four three dimensional frames of full dimensions (of super imposed orientations parallel to -1 and +1, which otherwise are of the

features of pairing of dimension fold and domain fold, together with a fifth three dimensional frame embedded at the center of the cube, that way shall be making available a set of five three dimensional frames of full dimensions which shall be leading to a set up of a seat of origin of 4-space (hyper cube 4) at center of cube.

58. The emergence of solid dimensional origin, spatial dimensional order and solid boundary, that way shall be amounting to structuring of the space as space manifesting as domain fold of hyper cube 4. Here it also would be relevant to take note that NVF (Volumme) = 88 = NVF (Space) + NVF (Space).

59. One may have a pause here and take note that 88 = 44 + 44 is parallel to the features of accepting (1/2) as a working unit. This in other would mean working with '2 as 1' and '1as 2' simultaneously. It is going to be parallel to a transition from linear dimensional order to spatial dimensional order by a transition and shift from '1 as a unit' to ½ as a unit.

60. The above feature of a shift from '1' to ½ together with the feature of super imposition of dimension fold and domain fold, when shall be chased further it shall be leading to the next step

a. shift from '1' to '1/3' , and

b. super imposition of 3-space as solid dimensional order upon 5-space as domain fold

c. Still a step ahead, shift would be

i. 1 to ¼ and

ii. super imposition of 4-space as hyper dimensional order upon 6-space as self referral domain

These features together shall be providing a shift from hyper cube 5 to hyper cube 8 and accordingly would emerge the ratio of 16 boundary components of hyper cube 8 and 48 coordinates of hyper cube 8 being 8 x 6 as 6-space is to play the role of dimension of 8-space.

These features together shall be providing a shift from hyper cube 6 to hyper cube 10 and accordingly would emerge the ratio of 20 boundary components of hyper cube 10 and 80 coordinates of

hyper cube 10 being 10 x 8 as 8-space is to play the role of dimension of 10-space.

61. It would be blissful exercise to note that above pair of attainments shall be leading to transcendence triple (1, 3, 5) and (2, 4, 6) which together shall be structuring a range 1, 2, 4, 5, 6.
62. 1), and in general (1, 2, 3, ---- n) and (n, n – 1, --- 3, 2, 1), on their chase would help us reach at large number of features of dimensional spaces contents manifesting as domain folds in terms of their respective dimension folds
63. In particular this shall be bringing us face to face the dimensional synthesise values VMS & T formats for their chase for pure and applied values.

Note : -

Here it may be relevant to mention that the approach features of 'learning and teaching'. This in the context of 'learning and teaching VMS & T', it is expected to be of following features

i. Make your own dictionary
ii. Express about concepts
iii. Find time to evaluate one's comprehensions
iv. Share insight
v. Enlist exercises
vi. Pose hurdles
vii. Tabulate indicators
viii. Teach
ix. Learn while teaching
x. Attempt text book
xi. Explore further
xii. Appreciate pure values
xiii. Have an eye upon applied values
xiv. Chase existence within human frame
xv. Chase existence beyond human frame
xvi. Built VMS & T Classroom instructions methodology

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CHASE OF TRIMURTI VALUES

1. Lord Brahma, Lord Shiv, Lord Vishnu are 'Trimurti'.
2. Lord Brahma is overlord of 4-space, Lord Shiv is overlord of 5-space and Lord Vishnu is overlord of 6-space.
3. Hyper cube 4 manifests 4-space content as its dimension fold, hyper cube 5 manifests 5-space content as its domain fold and hyper cube 6 manifest 6-space content as its domain fold.
4. Hyper cube 4 is of features parallel to four fold manifestation layer (3, 4, 5, 6), hyper cube 5 is of features parallel to four fold manifestation layer (4, 5, 6, 7).
5. The domain boundary ratio of hyper cube 4 set up is of formulation A^4: $8B^3$, while the domain boundary ratio of hyper cube 5 set up is of formulation A^5: $10B^4$and domain boundary ratio of hyper cube 6 set up is of formulation A^6: $12B^5$.
6. Idol of lord Brahma, four head lord, creator the supreme, is of the features parallel to that of hyper cube 4, which may be tabulated as under:

Sr.	Feature of idol of lord Brahma	Feature of hyper cube 4
1	Four heads	Four dimension
2	Each head equipped with A pair of eyes.	Spatial dimensional order (2-space in the role of dimension)
3	Lotus seat of eight petals	Solid boundary of eight components
4	Seat of lord shiv (five head lord) in the Heart of lord Brahma	5-space in the role of origin fold
5	Lord Brahma meditates in His heart upon Lord Shiv and multiplies as ten brahmas	Hyper cube 5 has creative boundary (4-space in the role of boundary) of ten components

7. Idol of lord Shiv, five head lord, transcendental lord, is of the features parallel to that of hyper cube 5, which may be tabulated as under:

Sr.	Feature of idol of lord Shiv	Feature of hyper cube 5
1	Five heads	Five dimension
2	Each head equipped with	Solid dimensional order

	Triple eyes.	(3-space in the role of dimension)
3	Ten beautiful arms	Hyper Solid boundary of ten components
4	Seat of lord Vishnu (six head lord) in the Heart of lord Shiv	6-space in the role of origin fold
5	Lord Shiv transcends and manifests DwadashAditya (Twelve sons)	Hyper cube 6 has transcendental boundary of 12 components

8. Idol of lord Vishnu, six head lord, self referrallord, is of the features parallel to that of hyper cube 6, which may be tabulated as under:

Sr.	Feature of idol of lord Vishnu	Feature of hyper cube 6
1	Six heads	Six dimension
2	Each head equipped with Quadruple eyes.	Hyper Solid 4 as dimensional order (4-space in the role of dimension)
3	DwadashAdityas (12 sons)	Transcendental boundary of ten components
4	Seat of lord Shiv (five head lord) in the Heart of lord Vishnu	5-space in the role of dimension of origin fold
5	Lord Vishnu transcends and manifests as 14 Bhuwans	Hyper cube 7 has self referral boundary of 14 components

9. Summation value of triple (4, 5, 6) is 4 + 5 + 6 = 15 = 1 x 3 x 5, parallel to linear dimensional equivalence for the transcendental domain's dimensional frame of five solid dimensions.
10. 4 x 4 matrix format as expression format for four consecutive manifestation layers leads to total summation value as 4^3 :

(1, 2, 3, 4),
(2, 3, 4, 5),
(3, 4, 5, 6),
(4, 5, 6, 7).

11. 5 x 5 matrix format as expression format for five consecutive transcendental ranges leads to total summation value as 5^3 :

(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).

12. 6 x 6 matrix format as expression format for six consecutive self referral ranges leads to total summation value as 6^3 :

(1, 2, 3, 4, 5, 6),
(2, 3, 4, 5, 6, 7),
(3, 4, 5, 6, 7, 8),
(4, 5, 6, 7, 8, 9)
(5, 6, 7, 8, 9, 10)
(6, 7, 8, 9, 10, 11).

13. The 4 x 4 matrix format as expression for manifestation layers of folds themselves being manifestation layers shall be of entries of hyper cubes:

H2	h3	h4	h5
h3	h4	h5	h6
h4	h5	h6	h7
h5	h6	h7	h8

14. Parallel to above, the summation values of four folds of hyper cubes shall be

6	10	14	18 with summation value 48
10	14	18	22 with summation value 64
14	18	22	26 with summation value 80
18	22	26	30 with summation value 96

With grand summation value = 288

The artifice 288 accepts re-organization as 144 + 144.
This further admits re-organization as 12 x 12 + 12 x 12.

15. Here it would be relevant to note that NVF (Space Discipline) = 144 = NVF (Formulation).
16. Further it also would be relevant to note that 6-space/ hyper cube 6 accepts transcendental boundary of 12 components.
17. Let us have a pause here and have a fresh look at the set up of hyper cube 1 as a four fold manifestation layer (-1), (0, 1, 2, 3). It would help us comprehend, imbibe and to have an insight as to how the origin (fold) goes inside the domain (fold) at middle (of interval / center of square /

cube / hyper cubes) and leads to the feature of compactificationand super imposition of origin folds upon each other. And structure along the format of a 'vertical line' as of values of a 'straight line' which also accepts the features of a 'transcending line'.

18. The formulations (i) vertical line (ii) straight line and (iii) transcending line deserve to be chased to have comprehension for imbibing the values of these set ups and to have insight about them.
19. Vertical line : - Chase of this formulation in terms of NVF values would bring to focus as that NVF (vertical line) = 90 + 40 = 130 = NVF (artifices line) = 130 = 65 + 65 = NVF (static state) = NVF (continuum).
20. NVF (Straight line) = NVF (2-space line) = 142 = 71 + 71 = NVF (Sphere, Sphere).
21. NVF (Transcending line) = NVF (Uncountable line) = 168 = NVF (colour) + NVF (colour).
22. It would be relevant to note that 168 – 142 = 26 = 5 + 6 + 7 + 8, parallel to quadruple of artifices (5, 6, 7, 8) which further is parallel to four fold manifestation layer (5, 6, 7, 8) of hyper cube 7.
23. Further as that NVF (transcending line) = NVF (Transcending mind), as such NVF (Head) = 18 = 3 + 4 + 5 + 6, parallel to features of quadruple artifices (3, 4, 5, 6) which further is parallel to four folds (3, 4, 5, 6) of hyper cube 5.
24. It would be a blissful exercise to chase 'transcending mind' of features of hyper cube 7 as values and order of hyper cube 5 as format of 'head'.
25. The attainment for hyper cube 5 as 'head' of 'transcending mind' or the values and features attained by and in terms of the values and order of Discipline of Vedic Mathematics, science and Technology.
26. The transcending mind being of transcending feature, in addition to other values has the potentialities of 'transcendence' because of which 'mind' simultaneously works out multiple operations 'including arithmetic operation, reflection and refraction operation', jumping and formatting operations as transcendental carriers (5-space in the role of transcendental order).
27. It would be blissful to chase different phases and stages of formulation 'straight' which when translated into artifices language shall be yielding a range of values (19, 20, 18, 1, 9, 7, 8, 20).
28. The starting point is value '19'.
29. This as such shall be taking us to the format of southern hemisphere.
30. The triple (17, 18, 19) is parallel to the values of northern hemisphere, center and of southern hemisphere. These are the three folds of manifestation layer (16, 17, 18, 19).

31. Artifices and numbers on the format of 1-space with (-1) space as its dimension, shall be putting the above quadruple of artifices (16, 17, 18, 19), in reverse orientation as (19, 18, 17, 16).
32. The processing along the format of hemispheres, in a sequential order takes us from triple (17, 18, 19) to quadruple (17, 18, 19, 20) but the end value 20 of triple (18, 19, 20), shall be having a placement at the middle which would bring it superimposed upon the artifice value 18 in the placement order of the triple (17, 18, 19).
33. This in a way would also set progression in the reverse order from 19 to 20 taking from 19 for placement over 18.
34. This in a way is a step which takes from origin fold to the domain fold placement. Here it would be relevant to note that the super imposition of value 20 over 18 is the super imposition of the feature of domain fold over dimension fold. The second progression step of the formulation 'straight' is which shall be taking from NVF (T) = 20 to NVF (R) = 18.
35. One may have a pause here and take note that while during the first progression step reaching from 19 to 20 was of value '1', the same at the phase and stage of second progression which takes from value 20 to 18, it is of value '2'.
36. This in a way would mean that first progression step is of value '1' while the second progression step is of value '2'.
37. One may further have a pause here and take note that while in case of first progression step the format was to reach from origin fold to domain fold, so in continuity, at the phase and stage of second progression the format would be which would take from domain fold to the dimension fold.
38. It is this reach from origin fold to dimension fold which deserves to be comprehended fully to imbibe the feature of 'straight', as it is taking up till this stage from '1' to '2'.
39. The third progression step which takes from NVF (R) = 18 to NVF (A) = 1 which is of the features of awakening fromsleep as NVF (sleep) = 57 = 19 + 20 + 18.
40. The orientation which was previously reversed to have a chase format, is to be reversed again as 'line' being straighten is to be of the features of (domain, dimension) super imposition features. NVF (A) = 1 is of features parallel to that of 1-space body / hyper cube 1.
41. One may have a pause here to take note that progression uptill this stage is of triple (19, 20, 18) followed by single value (1).
42. As such the progression ahead as well is to be of the features of triple values to be followed by a single value. This shall be taking us to triple values (9, 7, 8) and (20).

43. The triple values (9, 7, 8), evidently is to bring the value at third place of the triple (9, 8, 7) at the middle to make it the triple values set up (9, 7, 8).
44. The final progression step is of transition and transformation from the values format of NVF (H) = 8 to value format of NVF (T) = 20. It would be a very blissful exercise to chase artifices pair (8, 20). This artifices pair (8, 20) permits re-organization as (4 + 4), (10+10).
45. Further as that artifice 4 permits re-organization as 4 = 1 + 1 + 1 +1 and artifice 10 = 1 + 2 + 3 + 4. It as such would mean that the affine equal values progression format transit and stands transformed into a sequential values format.
46. Still further as that such streams are of two folds, as are expected of super imposed 1-space as domain upon -1-space as dimension. Simultaneously it also would be relevant to note that 1-space in the role of dimension shall be structuring hyper cube 3 with 4-space of spatial order as origin fold.
47. Still further as that 4-space and parallel to it artifice 4 also accepts super imposition of orientations as that 4 = 2 x 2 = (-2) x (-2).

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CHASE OF POLE STAR (DHURUV) ORDER

1. Artifice 7 / 7-space / hyper cube 7 chase shall be a step ahead of artifice 6 / 6-space / hyper cube 6.
2. Amongst others, prominent features of artifice 7 are :
   a. 7 is a prime.
   b. 7 is the biggest prime numeral of ten place value system.
   c. 3-space has 7 geometries.
   d. cube has 7 versions
   e. 7 edges connect all the eight corners of the cube.
   f. 3 dimensional frame coordinates 7 geometric components namely
      i. Origin
      ii. Triple pairs of half dimensions
   g. hyper circles 1 to 7 increase.

3. Artifices range (1, 2, 3, 4, 5, 6) and its reverse (6, 5, 4, 3, 2, 1) lead to 6 pairs (1, 6), (2, 5), (3, 4), (4, 3), (5, 2) and (6, 1) which as their summation values lead to common value ‘7’.

4. The above pairs lead to differences values sequence (5, 3, 1, -1, -3, -5).
5. This range (5, 3, 1, -1, -3, -5) is five fold transcendence values steps taking (i) from 5-space to 3-space (ii) from 3-space to 1-space (iii) from 1-space to -1 space. (iv) from -1 space to -3 space and finally from -3 to -5 space.
6. Further this range permits split as a pair of limbs of parabolic curve format.
7. Parallel to it range (0, 1, 2, 3, 4, 5, 6) and its reverse (6, 5, 4, 3, 2, 1, 0) shall be leading to differences range (6, 4, 2, 0, -2, -4, -6).
8. The pair of transcendence ranges (5, 3, 1, -1, -3, -5) and (6, 4, 2, 0, -2, -4, -6). On their simultaneous chase shall be focusing upon the unity state itself a synthetic state which because of it simultaneously unifies as a linear sequential progression as well as a spatial sequential progression because of which there emerges increase uptill 7 steps and also there emerges a transcendence there from of progression in continuity but with a shift to spatial order.
9. The above features make pole star with 7-space format as origin fold of 6-space (Sun) which deserves to be chased for existence phenomenon within solar universe.
10. Truth wind up

    'Truth wind up' formulation deserves to be chased. NVFs equations would be of help for this chase.

    NVF (Truth) = 87 = 50 + 37 = NVF (Wind) + NVF (Up).

    NVF (Wind) = NVF (W) + NVF (In) + NVF (D)

    NVF (W) = NVF (end), as such NVF (Wind) is 'End' in '4'. This feature as that 'end' is in '4 / 4-space' would help us comprehend as that end is attainable in 4-space. NVF (Up) = 37 = NVF (Seal). As such the attainability as well is sealed. And, it is 'Truth', which is 'void' seal. The artifice 87 is of the features that there is ahead of artifice 7 as well. Artifice 7 is the biggest prime numeral. Beyond that as well is the artifice '8'. Hyper circle 1 to 7 increase and beyond that from hyper circle 8 onwards, there is a decrease.

    It is because of a linear order which structures 3-space of 7 geometries range.

    Further as that dimensional synthesis range for 3-space as dimension is (3, 5, 6, 6, 5, 3, 0, -4, -9, ---), as per which non negative

values are only uptill synthesis of 7 solid dimensions. Beyond that there are negative values.

First negative value is '-4'. However within 4-space, which is of spatial order, there is super imposition of orientations, as much as that (2 x 2) = (-2) x (-2). It is this feature which would help us appreciate that domain boundary ratio of hyper cube 4 is A^4: 8 B^2.

Further as that 8 = 2^3, And the 'Truth' is that there is existence beyond linear order and it takes us beyond artifice 7 to artifice 8 as a increasing step.

It would be a blissful exercise to revisit and chase firstly cube within cube and to reach at the structuring of volumme of cube as along the format of hyper cube 4.

Further it also would be a very blissful exercise to chase cube within hyper cube 4. The set of eight corner points as zero space bodies, 8 in number shall be in their dimensional role leading to dimensional synthesis values range (0, 2, 6, 12, 20, 30, 42, 56). NVF (light) = 56 = NVF (domain) = NVF (three) = NVF (folds).

Further as that 12 edges of the cube, in their dimensional roles of 12 linear dimensions, on their synthesis shall be yielding synthesis values range (1, 3, 6, 10, 15, 21, 28, 36, 45, 55, 66, 78). NVF (Ambrosia) = 78.

Further as that (78,87) as reflection pair and as of summation value 165 = 15 x 11 is parallel to the features of dimensional coordinates of 11 geometries of 5-space.

Still further as that 6 surfaces of cube in their spatial dimensional roles of 6 spatial dimensions shall be structuring synthesis values range (2, 4, 8, 10, 12). The artifices 2, 4, 6, 8, 10 & 12 are parallel to the boundary components of hyper cubes 1, 2, 3, 4, 5, 6.

These features, that way shall be with stripping off of the boundary of cube stitched as 8 points, 12 edges and 6 surfaces shall be putting 3-space content lump which in dimensional role of 3-space shall be structuring 5-space as transcendental origin of 4-space and this as transcendental dimensional order shall be creating unity state. (7-space) set up.

Parallel chase for sphere as hyper sphere 3 for 'wind up truth' chase of transition and transformation from artifice value 7 to artifice value 8 of the features of spatial order shall be very blissful

and same would be enriching insight as to the domain boundary ratio in both cases of cube and sphere being of same formulation $A^3 : 6B^2$ as that infinite cube is of the format of a sphere.

Note:-

1. Up to date and organize your dictionary under following heads
   i. VMS & T
   ii. 5-space (domain)
   iii. Artifice 5
   iv. Triloki,
   v. Trimurti
   vi. Pole Star
   vii. Manifestation
   viii. Transcendence
   ix. Self Referral state
   x. Unity State
   xi. Five orbital's
   xii. One thousand names
   xiii. Sun
   xiv. Existence within human frame
   xv. Existence beyond human frame
   xvi. Brahman unity

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