Contents

Dedication	3
Benedictory Note	11
About Bharath Gyan	13
About the Authors	15
About Autobiography of India	19
Preface Roots in India	
Foreword	25
Foreword	27
Acknowledgements	29
PART 1 - ROOTED IN INI	DIA
Buddhism	33
Bamiyan – Gateway to the Land of the Buddha	
Buddhism in South and East Asia	
Zen Buddhism	39
Zero	41
Due To Zero	41
No Zero in Roman Numerals	
Introduction of Zero into Europe	42
The Incomprehensible Zero	42
Zero – A Sign of Confusion	43
Profound Sign of zero	
No Zero in Roman Calendar	
Early Evidences Of A Written Zero	
The Journey of Zero	50

Zero, A Place Holder For Everything	52
Nothing went from India	52
Infinity – The Unfathomable Endlessness	53
Source of Infinity	
Representing Infinity	
Infinity – A Wholesome, <i>Poorna</i> Definition	
Infinity – A Wholesome Appreciation	
Journey of Infinity	
Numerals - India's Counting Contribution	
The Great Indian Impact	
Of Indian Origin	
Numerals Come Back a Full Circle	64
A Land of Measures and Metrics	65
Decimal – The Scale of 10	67
Expression from Units to Highest	72
Unique Expressions	73
Metric System	
Nothing, but a Contrasting Image	
Algebra	77
Bija Ganitham	
Bija Ganitham to Algebra	
Algorithm	81
Geometry	83
360 Degrees - Going Around in Circles!	
Chakra and Circle	
360 Degrees from 1 x 360 days	88
360 Degrees from 360 pairs of Offsprings	
360 Degrees from 4 x 90 names	
360 Degrees from 12x30 days	
360 Degrees from 360 Sunrises	
Summing All the Angles	98
The Story of Pi (II)	
The Most Valuable Ratio	
PI - The Paridhi-Vyasa Sambandhana	10
Circular Shapes For Usage	
Circular Structures that Towered	
Circular Sky to Map	
Circular Seas to Navigate	
The Formulation of Pi	
Right of Di	107

Birth of the notion of Pi	109
Birth of the name Pi	109
Journey of Pi	111
Pi – A Perimeter Around the World	112
Trigonometry	113
Trijya, The Basis for Trigonometry	116
From Jya to Sine	118
Sine – A Good Sign	119
Calculus – Its Origins	121
Calculus – The Science of Calculating	
Another Dimension to Calculus - Challenges to Calculating	
Calculus – The Indian Answer	
Calculus From Indian Theology	
Study of Calculus in India	
Calculus - the Basis	127
Meru – Mathematical Pyramids	129
A Common Name	131
The Indian base to Pyramids	131
Indian Pyramids, Meru	132
Meru in Literature and Culture	
Meru, Joining Body and Mind in Yoga	135
Meru in Worship	136
The Golden Triangle of Meru	137
Meru Prastara in Sastra	137
Fibonacci's Sequence in Maths	137
A Golden Ratio	140
Yantra – The Zenith of Pyramids, The Meru	
Golden Ratio – Basis of Divine Art	143
A Geometric Progression of Divine Art	
A Common Pattern	152
Meru Prastara - A Divine Arrangement	152
Yantra - The Geomtery in Nature	
Understanding Pyramids	155
Missing the Connect	156
Joining the Worlds	157
Meru, The Summit of Human Thought	158
Maths - Securing Communication & Civilization	159
Modern Cryptography – Science of Encoding	
Encoding Love	160
Encoding War	
Encoding Worship	161
Encoding Knowledge	163
Encoding Harmony / Music	

Encoded Metres	166
Encoding Immortality	167
An Expression of Mathematics	167
From Mathematics to Ethics	168
Maths, Ganitham - A Heavy Subject	169
Travel of Mathematics from India to Europe	171
Need for Indian Mathematics	172
An Underestimated Contribution	174
An Untraced Contribution	
A Witness Even After 400 Centuries	177
Mathematics – A Resounding Contribution from India	179
Intellect and Imagination	
A Designated Space for Intellect	
Indian "Math" and Greek "Mathematica"	
Phonetic and Semantic Similarity in Mathematics	183
Crest of the Peacock – Intellect In Sway	185
Music - A Mix of Maths, Mood and Melody	191
A Song In The Lips	191
Thus Evolved Prose	
Soon Came Poetry	192
Evolution of Music	
Similar Music, Similar Notes	
Do Re Mi – The European Notes	
A Noteworthy Question	
India's Music Tradition	
Saptaswara – Origins in Nature	
An Age Old Structuring	
The Influence of Sama Gana	
Saman to Psalm	
The Profundity in the Indian Notes	
An Undeniable Inference	
The Concluding Note	205
IST – Indian Standard Time / Prime Meridian	
GMT - Greenwich Meridian Time	
Keeping Time With Meridians	
Meridian – The Midday	209
Why Greenwich?	
Past Prime Meridians	
Ujjain – Prime Meridian of The Ancient World	
Maha Kaleshwara Temple – An ancient Observatory?	
Significance of Ujjain	
The Cardinal Points on Earth	
Implications of a Prima Maridian	227

Tracing Ujjain's History	227
Ujjain – The Timekeeper	
Tracing the Timeline for World's Timeline	
The Ancient Date Line	234
Knowledge Share	235
A Joke	236
An Irony	236
Khaki	239
Pyjama	243
Dressing Tips from Tipu	
A Pyjama Wardrobe	
Pyjama Fashion	
Umbrella	247
A Shady Contraption	
Shampoo	251
Rocketry	255
From where, when, how?	
Rocket Force	
The Rocket Centre	
The Rocket Havoc	
A Crashing Defeat	
British Interest	
Father and Son Duo	260
Congreve Rockets	261
Fireworks - Works for Display	264
Tips from Tipu	
Resounding Voices	
Rockets Go Way Back in India	
A Scathing Acknowledgement	269
A Long Trail	270
PART 2 - STARTED IN IN	JDIA
Chess	
A Sindhi Legend	
Arabic Acknowledgement	
The Persian Connect	
Losing Limbs in Chess Than In War	
Chess Travels Further West to Europe	
Chess In a Cipher by Vedanta Desika	
Antiquity of Chess	
Games of War Strategy	
Games of Chance	
The Creation Cost Of Trust	200

Chess Goes to China	292
The Black and White Fact	294
Spread of Chess From India	294
Board Games	297
Pachisi – A Precursor to Ludo	297
Vice from Dice	301
Morals Through Dice	301
Board Games Travel	304
Board Games - Etched in Time	305
Club Sports	307
Snooker	307
Carrom – A Precursor To Snooker And Billiards	308
Cards	313
Shuttlecock – Badminton	321
Polo	323
History of Polo	
Invention of Polo	
1400 BCE - Pana	
34 BCE	326
1210 CE	327
1500s CE	327
Brits take to Polo	
Polo develops Team Spirit	
Polo Pierces A Hole Into Aryan Myth	
Contact Sports	331
Karate	
Jujutsu	
The Roots	
Parent Form Still Alive	
Martial Arts in India	
India's Hand In Martial Arts	338
Stadium	339
Indian Stadia – Rangabhoomi	
Sports Stadia of Dholavira	
Convergence of literature, tradition and archaeology	
Precursor to Greek and Roman stadia	
Sports - A Long Time Entertainer	
Enilogue	2/15