

# HINDU-CENTUM

# HINDU-SATAKAM

## One Hundred Frequently Asked Questions and Answers on Hindu Religion (Dharma) (A TREATISE)

*Pundit Deen Bandhu Sharma (Chandora)*  
*Atlanta, GA USA*

Hindu Centum is primarily written for people who are eager to know all about Hindu Dharma (Religion). This is an easy reading text that clarifies the conflicts, the controversies, and the distortions surrounding Hindu Dharma. The book explains the material cause of existence, cosmos, the complex notions and realities of God, soul, Dharma, Yajna, Karma, Yoga, and Moksha in everyday terms.

Hindu Centum, in a very simple way, deals with the basic principles of Vaidic-Hindu- Sanatan Dharma, and the work answers complex questions such as “Who is a Hindu? What are the essential entities for enlightenment”?

New diacritical marks are designed and implemented in this book to provide the correct pronunciation of Sanskrit and Hinduka words, mainly, for the English speakers out side the Indian sub-continent.

Hindu Centum briefly summarizes Hindu spiritual principles that can be experienced by a scientific mind without any dogma or belief. There is no place for “ism” in Hindu Dharma, for these principles can be scientifically tested, realized, and practiced in daily life.

Indeed, Hindu Centum is an important resource and an ideal book for students of Hindu Dharma.

## FOREWORD

‘Dharma’ is a very profound word. Every entity has Dharma, the natural role in the grand scheme of the cosmos. Manava Dharma is that Dharma, the natural role of people, for Hindu Dharma is Manava - Dharma. It is in the best interest of everyone to know his or her Dharma which takes effort.

This work will be very useful to many parents, groups, and organizations who are engaged in the better understanding of Hindu traditions, customs, and philosophy.

### **Professor Bhu Dev Sharma**

President, World Association for Vedic Studies,  
President, Hindu Educational and Religious Society of America, Professor Deptment of Mathematics  
Xavier University, New Orleans, Lousiana, U.S.A.

# PREFACE

Hindu Centum contains one hundred basic questions about the Hindu religion, and the work has specific, as well as, authentic answers for the educated individual who seeks to have a general view of the Hindu religion as known today. The book encompasses Hindu Dharmas' reality, myths, fundamentals, and peripherals.

The questions are well-framed and concise, and the answers are equally instructive and impressive. References of the author are precise and exhaustive, and the "Pronunciation and Transliteration Guide" is phonetically correct.

Hindu-Centum is particularly detailed and scholarly in relation to the scriptures, secondary scriptures, commentaries, Angas-philosophy, and Upanishads. The author provides a comprehensive understanding of the Smritis, ethics, historical epics, and metaphysical considerations that are given in the Hindu religion. Data on the age of the earth and the dawn of history provide an extremely accurate account.

**Romesh**  
International  
Chittorgarh, Rajasthan, India.

**Wadhwa**  
Educationist,

## WORD OF CAUTION

The writer sincerely hopes that this book will be read with an open mind. This book has been written especially to clear all confusions one may have regarding the Hindu religion. The diacritical marks used in this text have been modified to provide clarity of transliteration for the western readers. Diacritical guidelines are offered for details.

The reader should start with question number one and sequentially continue to read through question one hundred. In order to understand the teachings of Vaidic- Hindu-Sanatan Dharma in its pristine form, one should not deviate from this particular sequence, for the reader will grasp the spirit and the basic teachings of Vaidic-Hindu- Sanatan Dharma in this manner.

**-Editorial Board.**

## Comments

Hindu Centum is truly an, in depth, detailed and dedicated treatise explaining the general as well as the specific and scientific aspects of the Vedas. The work provides an interesting and expansive delineation of Vedic Knowledge, which may be understood by individuals holding questions or by individuals seeking information. In essence Hindu Centum presents, not only, an outstanding study, but the author offers the reader a means to self realization.

Dr. Barbara Jones Glaze  
Educator, Librarian,  
Dalton, GA, USA

FOREWORD .....	1
PREFACE .....	2
WORD OF CAUTION .....	2
Comments .....	2
Q (1): What is Dharma? .....	4
Q (2): What is Religion? .....	5
Q (3): What is the meaning of the word Hindu? .....	5
Q (4): Who founded Hindu Dharma? .....	6
Q (5): What are the Vedas?.....	6
Q (6): What is the original name of Hindu Dharma?.....	6
Q (7): To whom was the knowledge of the Vedas revealed, or to whom was it first made known? .....	7
Q (8): How were the Vedas passed from generation to generation? .....	7
Q (9): Why did the sages and scholars not write the Vedas?.....	7
Q (10): In what language were the Vedas originally written? .....	7
Q (11): Give one example of the multifaceted richness of Sanskrit. ....	8
Q (12): Are there any other scriptures based on the teachings of the Vedas? .....	8
Q (13): <i>Name the sages: Rishis, to whom the Vedas were first revealed.</i> .....	9
Q (14): What is Vedanta?.....	9
Q (15): What sciences originated from the Vedas? .....	9
Q (16): What is Sankalpa? .....	9
Q (17): How old is Hindu Dharma?.....	9
Q (18): What is the current time according to Hindu Dharma?.....	10
Q (19): What is the day of Brahma? .....	10
Q (20): What is Kalpa? .....	11
Q (21): What are the parameters of time calculations?.....	11
Q (22): How can one calculate or remember these unbelievable numbers?.....	12
Q (23): How much time is left before the present, Sristi, creation of the universe ends, and Pralaya, dissolution begins?.....	13

## Q (1): What is Dharma?

A (1): Dharma is the individual's natural, selfless duty, a responsibility towards self, parents, family, society, community, environment, and humanity. **There is no equivalent English translation for the Ancient Sanskrit word 'Dharma'**. Dharma is pronounced as Dh-r-m.

Dharma is divine in origin and deals with universal natural principles. The connotations are spiritual and metaphysical. Mahabharata (12-31-7) described Dharma as follows:

*"That conduct which sustains, protects, harmonizes all human beings including family, society, nation, nature, and the cosmos".*

While visiting Jakarta, Indonesia, I saw many English sign-boards stating "Dharma-Vanita". I asked a taxi driver the meaning, and the driver replied: "Dharma means to help others, and Vanita means women. It is a sign-board of a government department that deals with helping women, you may call it women's welfare!" Furthermore I asked him: "What is your religion?" He replied "Muslim". According to this Indonesian Muslim taxi driver his religion is Muslim, but, to him, Dharma means the duty to help others.

**An individual who goes out of the way to help others is said to have undertaken Dharma.** Kanad Rishi in Vaisesika Darsan describes Dharma as follows:

*"Dharma is that righteous conduct which elevates a human being to a higher level of interaction; thereby, one attains selflessness and is free from selfishness."*

Dharma is derived from the Sanskrit word 'Dharana,' the root word, Dhr. 'Dharana', means 'to uphold,' or to sustain. One who upholds these destined natural duties is said to have undertaken Dharma. For example, the Dharma of the sun is to shine. The Dharma of the earth is to rotate, and a learned person should guide others in the righteous direction.

The great lawgiver sage, Manu, described ten characteristics of Dharma as follows:

*"The ten characteristics of a person who upholds Dharma are contentment, forgiveness, maintenance of purity, thought, action, emotional, and sensual discipline, iratelessness, truthfulness, abstinence from stealing, acquisition of knowledge, and wisdom."*

The tenth Sikh Guru Sri Govind Singh in Ugradanti Chhake Chhand Vani under the description of "Chandi Ki Var" stated:

*"Sakala jagata me khalsa pantha gaje,  
Jage dharam hindu sakal bhanda bhaje"*

*Chhake Chhanda 39*

"Let Khalsa Pantha be victorious all over the world to awaken Hindu Dharma, so all falsehood or ignorance may be removed."

Sikh Guru Sri Govind Singh further stated in Ugradani Saveya Chhake Chhanda (40):

*"Sakala jaga me khalsa pantha gaje,  
Jage dharam Hinduka turk dunde bhaje"*

The use of the word “Hinduka” in the above Chhand by Guru Sri Govind Singh reveals that the word Hinduka was in vogue at that time.

**In essence Dharma means “natural righteous, conducts, and duties that help one to rise higher to become a better person.”**

## **Q (2): What is Religion?**

A (2): Religion is an artificial and human created path which helps one to lead a noble life and bring one closer to God. In English, religion is the closest word that may be substituted for “Dharma”. For ordinary purposes the term Dharma may be interchangeable with religion.

Humans designed “Religion”; whereas, Dharma represents natural principles, duties, and responsibilities.

## **Q (3): What is the meaning of the word Hindu?**

A (3): Actually nobody knows the origin of the word “Hindu”. The word Hindu cannot be found in any ancient Hindu scriptures, for Hindu is a later day derivative with many theories which are stated below:

One group of intellectuals is of the opinion that the word Hindu is derived from two different words; the first word is Himalaya, and the second word is Indu. Himalaya is the highest and largest mountainous range of the world, 5.5 miles high and 150,000 miles long that marks the northern most boundary of India. Indu means an ocean, and the ocean marks the southern most boundary of India. “Hi” from Himàlaya, and “ndu,” from Indu, have given birth to the new word “Hindu”. People living in the land that extends from the Himalayas to the Indian Ocean are called “Hindus”; thus the word Hindu originated indigenously.

Other scholars think the word “Hindu” originated from the word “Sindhu,” as the mis-pronounced word “Hindu,” instead of “Sindhu”. Sindhu is one of the largest rivers of ancient India flowing from the Himalayas to the ocean west of India. Traders, merchants, and travelers had to cross this river in order to go west beyond the boundaries of Bharat, Greater India. Hindu-Kusa, a range of Himalayan mountains, was the boundary of Bharat, Greater India, in ancient times (see map no.1). Travelers usually remember the greatest pleasures, or travelers remember the most difficult obstacles of their journey. The Hindu-Kusa mountain range was the greatest hurdle for the travelers going west to the valleys and cities of Persia, Greece, Middle East, Central Asia, or Europe from the pleasurable and prosperous Sindhu, or Indus valley. The travelers would address the people of the Hindu-Kusa range and the Sindhu-river according to their own language as Hind, Inde, Inde, or Indus. This is how inhabitants of the Hindu-Kusa mountain range and the Sindhu River belt came to be known as Hindu. Similarly, the people of the Caucasus mountain range became known as Caucasians.

The word “Hindu” is found in the Arab Holy Book “LISAN AL ARAB,” which has been published since early 800 A.D.. The word “Hind” means beautiful woman, and, also, one hundred camels; The word “Hinduka” means person from India. Professor Al Batal, department of Arabic language, Emory University, Atlanta, Georgia, U.S.A., translated the mentioned book. A presumption is that in ancient times Arabs probably used to buy beautiful Hindu woman for one hundred camels!

Tenth Sikh Guru Sri Govind Singh, in Dasam Granth, has also used the word “Hinduka”, pertaining to Hindus (see answer 1). During medieval times the word “Hinduka” was in vogue, and the word may have been a prototype of the modern word Hindoo ( Hindu ) as the British would say.

In ancient times the inhabitants of the Hindu-Kusa Mountains and beyond were called Hindus, and in turn the inhabitants gave birth to the Arabic word “Hinduka.” The land beyond the Hindu-Kusa Mountains was called Hindusthan which means land of Hindus. The populace out-side of Hindusthan popularly referred to the religion of the people of Hindusthan as Hindu.

Note: \*Kusa means “sacred grass,” as spelled and written, according to “A Sanskrit English Dictionary” written by Sir Monier Monier-Williams.

## **Q (4): Who founded Hindu Dharma?**

A (4): Hindu Dharma was never founded by any prophet, person, guru, or committee. The source of Hindu Dharma is the Vedas.

There is no founder of Hindu Dharma.

## **Q (5): What are the Vedas?**

A (5): The word ‘Veda’ means knowledge. The divine knowledge was revealed at the dawn of civilization. Vaidic knowledge is in the form of four holy books that make the basis of Vaidic -Sanatan Hindu Dharma. The books are Rigveda, Yajurveda, Samaveda, and Atharvaveda. Rigveda contains 10,522 mantras, or hymns; Yajurveda has 1,975; Samaveda has 1,875; whereas, Atharvaveda has 5,977 Mantras, or hymns. There are 20,349 total Mantras, or hymns, in all the four Vedas.

The word Veda is derived from the root “Vid”. “Vid” has five forms, or meanings. In short, all forms may be summarized in saying “by its virtue all people can know, acquire, deliberate, live, and subsist.”

The Vedas are the principal sources of all knowledge and sciences. It may be the coincidence that happens to be Hindus, who by maintaining the scriptural status of Vedas, were able to preserve this treasure of all scientific knowledge for the modern world.

## **Q (6): What is the original name of Hindu Dharma?**

A (6): The teachings of Hindu Dharma are based on the Vedas; therefore, Hindu Dharma is called Vaidica or Vaidika Dharma. Adi Sankaracharya, in his commentaries of the Upanishads and Viveka-Chudamani, has acknowledged this Dharma alone as, Vaidic, or Vedic Dharma (pronounced as “WAY-THE-K DH-RUM”).

The original name of Hindu Dharma is Vedic or Vaidic Dharma.

The teachings deal with natural universal laws that are eternal. ‘Sanatan’ means eternal; therefore, Hindu Dharma is also known as Sanatan Dharma. ‘Sanatān’ is pronounced as S-naa-t-n. Manu gives various definitions of Sanatan Dharma, and one definition is as follows:

Satyam bruyatpriyam bruyanna bruyatsatyamapriyam.  
Priyam cha nanrtam bruyadesa Dharmaa sanatanaa.  
Manu Smriti 4-138

“Speak the truth, speak the truth that is pleasant. Do not speak the truth to manipulate. Do not speak falsely to please or flatter someone. This is the quality of the Sanatan Dharma”.

Vaidic Sanatan Dharma is the authentic name of Hindu Dharma.

## **Q (7): To whom was the knowledge of the Vedas revealed, or to whom was it first made known?**

A (7): Vedas were revealed at the beginning of creation to meditating seers; Rishis, who were in a super conscious state of mind. Yogis, being virtuous and pure, have already experienced the presence of God in their hearts and minds. These Yogis were able to perceive the Vedas. Vedas are Apauruseya which means one that is not made by humans. No one has ever claimed authorship of the Vedas unlike other scriptures. The Vedas are the oldest books of civilizations

Vedas were divinely revealed to meditating pure and virtuous seers, or Rishis

## **Q (8): How were the Vedas passed from generation to generation?**

A (8): The Vedas were passed, by oral transmission, from one generation to the next. Sages and scholars memorized and recited the Vedas in various forms. Each form of recitation was designed to keep the correctness of each Mantra, hymn, so exactness could be achieved on reproduction. The oral transmission from one generation to the next continued unabated; therefore, these Vedas are called “Strutis,” as well.

Vedas were propagated through hearing, remembering, and orally reciting, so the Vedas carry the title of “Strutis”

Only Vaidic hymns are called Mantras, and the hymns of other scriptures are called Slokas. Mantra is that verse whose meaning is to be analyzed repeatedly in the mind; whereas, one realizes the deep seated three-dimensional meanings including the abstract, spiritual, and metaphysical. “In short, Mantra is to be thought over and over, again and again”. Mantra is pronounced as “M-an-tr”.

Recite ‘Om’ prior to any Mantra, this is the basic rule. The purpose is to invoke blessings of God in realization of meanings of Mantra.

## **Q (9): Why did the sages and scholars not write the Vedas?**

A (9): Initially, the Vedas were transmitted orally. Therefore, the Vedas are called Strutis, meaning that which is heard. The Samhita nomenclature was given when the Strutis were written in book format. The Samhitas could be destroyed by flood, or by fire, or by animals, and, also, by humans, so by oral recitation and memorization, the sages and scholars managed to keep the Vedas alive.

When the Vedas were put in written form the Vedas became Samhitas, but only Samhitas are Vedas.

## **Q (10): In what language were the Vedas originally written?**

A (10): The Vedas Samhitas, or Srutis, were originally written in Vedic Sanskrit of which the classical Sanskrit is a revised grammatical form. Vedic Sanskrit places great emphasis on pronunciation, so each

‘Aksara,’ or letter, conveys immense meaning. Therefore, any deviation in enunciation will change the complete meaning. To prevent any distortion each ‘Aksara’ has to be pronounced appropriately. Modern Sanskrit is the mother language of all Indo-European/Indo-Germanic languages according to the American Heritage Dictionary. All the modern languages of India, and the languages of the east, such as, Thai language and Indonesian “Bhasa” also, originated from Sanskrit. Even Zoroastrian’s religious book, Avesta, was written in Old Farsi, a Persian language, which contains Rig Vedic hymns. As time passed, nations rose and fell, and the language of the nation changed as well. Henceforth, the Vedas were, also, written in various scripts, such as Brahmi and Kharosthi. The Brahmi and Kharosthi scripts were in vogue in ancient India and central Asia. Now, being extinct the symbols of the Kharosthi script still represent Om and Svasti, respectively. The language of the Vedas is Vedic Sanskrit.

## **Q (11): Give one example of the multifaceted richness of Sanskrit.**

A (11): Languages describe culture, emotions, and the richness of community interaction. The western philologists have proven that Sanskrit is the mother language of all modern Indo-European languages. The language has innumerable forms of expressions representing a variety of ideas, feelings, and social interactions. The usage of Upsara and Partyaya create innumerable words. According to Robert A. Johnson, Sanskrit has ninety-six terms to express love. The ancient Persian language Parsi, or Iranian, has eighty, Greek has four, and English only one word, love.

Love is expressed in ninety-six different terms in the Sanskrit language.

Ancient Sanskrit inscriptions were found in the Far East, in a village called Vo Canla near the town, “Nha Trang” in the southern part of Vietnam, as mentioned in the book, Hindu Temples of Vietnam, by J. C. Sharma, 1998. The original name of Vietnam in Sanskrit is Champa, Thailand is also addressed as Siam. Far Eastern languages, particularly those of Indonesia, Vietnam, and Thailand, are highly charged with Sanskrit words seemingly as if originating from Sanskrit. In Temples of Champa (Vietnam), 1992, J. C. Sharma reveals the deep impact of ancient Vedic civilization. A ninth century inscription describes the lineage of the Chams, or Vietnamese people, from the great ancient Sanskrit scholar sage Brigu Rishi.

## **Q (12): Are there any other scriptures based on the teachings of the Vedas?**

A (12): Yes. Since the common people cannot understand Vedas easily, the ancient Rishis, or seers, wrote commentaries that consist of other scriptures. These scriptures are guides to better understand the Vedas which are known as the secondary scriptures. The secondary scriptures are as follows: Upanishads, Aranyakas, Sad-Darshan, Manusmriti, Brahmana Granths, Sutras, Ramayana, Mahabharata, Gita, Puranas, Nirukta, Agmas, Tirukkural, and Satyarth Prakasa.

Some ancient Rishis, or seers, took portions of the Vedas that deal with the metaphysical, the spiritual sciences, and philosophical matters, and the seers wrote books to explain them in great detail. These are known as the Upanishads and the Aranyakas. Similarly, the Brahmana Granths and the Sutras are commentaries that deal with rituals and ceremonies. All these secondary scriptures are summarized in the seventh chapter, “Glimpses of Hindu religion”.

One must remember that only Samhitas, or Srutis, are called Vedas. Some sometimes erroneously call the Upanishads, Aranyakas, and Brahmanas the Vedas. The Vedas are the supreme authentic authority. Secondary scripture contents are to be accepted if they concur with the Vedas, and the contents are to be

rejected if they do not concur with the Vedas. Since these secondary scriptures were not memorized, distortion in order to please rulers, invaders, or modify personal whims, is possible.

Vedas are the primary scriptures. Only Samhitas or Srutis are called Vedas

### **Q (13): Name the sages: Rishis, to whom the Vedas were first revealed.**

*A (13): Agni Rishi - RigVeda, Vayu Rishi - Yajurveda, Aditya Rishi - Samaveda, and Angira Rishi - Atharvaveda.*

### **Q (14): What is Vedanta?**

A (14): The knowledge of Brahman, or the Supreme being, is called Vedanta. The Vedas contain many branches of knowledge dealing with different subjects, and the section dealing with the knowledge of God, or Brahman, is called Vedanta. Vedanta is so called; because, Vedanta is last in the series of the Upanishads which marks the final goals of the Vedas including “the knowledge about the self and God”.

### **Q (15): What sciences originated from the Vedas?**

A (15): All physical sciences are called “Apara,” and all spiritual and metaphysical sciences are called “Para.” All these sciences originated from the Vedas. The ancient Vaidic sages and scholars understood astronomy, mathematics, physics, chemistry, geology, metallurgy, engineering, philosophy, and medicine.

Apara, or all spiritual sciences, and Para, or all physical sciences, originated from Vedas.

### **Q (16): What is Sankalpa?**

A (16): Sankalpa is the initial part of any ceremony that deals with the march of time, the beginning of creation, and up to the present moment of the ceremony. Sankalpa includes the current positions of constellations, planets, and geographic locations. Sankalpa describes the purpose behind the ceremony, the executors, and the hosts. The events and the conductors of the ceremony are identified in the initial part of the recitation, so the exact time, up to the second, the exact location, and the hosts can be traced for authenticity which is the unique ancient Vaidic way of oral record keeping. Through recitation these records are passed from generation to generation; therefore, Sankalpa is also known as “Desakala Sankirtana.”

Sankalpa is an authentic, unique, and ancient Vaidic way of oral record keeping.

### **Q (17): How old is Hindu Dharma?**

A (17): Hindu Dharma is the oldest religion in the world, and the first religion of human beings which appeared on the earth 1.9 billion years ago! Modern science also supports the existence of life for this period. The late Carl Sagan, astrophysicist, professor of astronomy and space sciences, Cornell University, and recipient of the Pulitzer Prize, calculated that the sun of our solar system is five billion years old; whereas, the earth is 4.5 billion years old. Therefore, one should not be startled if Hindus say the current civilization is 1.9 billion years old!

## Q (18): What is the current time according to Hindu Dharma?

A (18): According to the calculations of the great lawgiver, Manu, 1,960,853,101 years have passed since the current creation 'Sristi' started, as calculated up to 1999 A.D.. One cycle of creation, Srihti, contains fourteen Manvantaras. The current Manvantara is the seventh Manvantara called Vaivasvata-Manu. One Manvantara has 71 cycles of Chaturyuga. One cycle of Chaturyuga contains four Yugas: The first one is called Satayuga, the second is called Tretayuga, the third is Dwaparyuga, and the fourth is Kaliyuga. The numbers of years in each Yuga is as follows:

Satayuga	1,728,000
Tretayuga	1,298,000
Dwaparayuga	864,000
Kaliyuga	432,000

All of these four combined Yugas are called one Chaturyuga.

The present creation, Sristi, is in the twenty-eighth cycle of Chaturyuga, and the creation has already completed Satayuga, Tretayuga, Dwaparyuga, and 5,100 years of Kaliyuga, as calculated up to March, 1999, A.D.. According to calculations, the present Kaliyuga started the year 5,101 on March 18, 1999, A.D.; therefore, the Kaliyuga Era entered the fifty-second century on this date.

The Hindu system of reckoning dates begins with the first month called Chaitra. Each month is divided into two halves depending on the phases of the moon. The first half of the month is called Krsna-Paksha and the later half is called Sukla-Paksha. Krsna means black, so during Krsna-Paksha there is gradual decreasing phase of moon that ends in complete absence of the moon-light on the fifteenth day, Amavasya. The Purnima means the full moon; whereas, the last day of the Sukla-Paksha, or the fifteenth day of Sukla Paksha, is called Purnima, or Purnamaasi, meaning full moon.

In the Hindu calendar, the first day of each half of the month either of Krsna-Paksha, or Sukla-Paksha, is called Partipada, or Ekama, or Pudva. The second day is called Dvitiya, and the third day is called Tritiya and so-forth until the fifteenth day arrives which is designated by special names as described earlier. Varsa-Partipada means the first day of the New Year. The twelve months that comprise one year of the Hindu calendar are out lined below:

Chaitra, Vaishakha, Jyestha, Ashada, Sravana, Bhadrpada, Asvina, Kartika, Margashira, Pausa, and Phalgun. Generally, these months correspond to the Gregorian calendar depicted as follow:

March, April, May, June, July, August, September, October, November, December, January, and February.

The total of 1,960,853,101 years have passed since the current creation 'Sristi' started, which was calculated up to 1999 A.D.

## Q (19): What is the day of Brahma?

A (19): One thousand Chaturyugi cycles make one day of Brahma. Also, the same number of cycles represent one night of Brahma. The expansion, or creation of the universe, is a day of Brahma, and the

contraction of the universe, dissolution, or sleepiness of Brahma is night, Pralaya. The universe expands for billions of years and then condenses. Afterwards, the universe expands again to make way for another creation, Sristi, and the cycle continues indefinitely.

In 1929, Edwin Hubble proved this Vedic formula to be accurate. Albert Einstein was even skeptical, but Hubble proved him to be incorrect. Of course, this information was stated in the Vedas before the birth of Hubble.

## Q (20): What is Kalpa?

A (20): Kalpa is the name given to the time span necessary to create the universe. Four billion, three hundred, twenty million, 4,320,000,000 years make one Kalpa according to the ancient astronomical Vaidic calculations of “Surya Siddhanta”.

The time between the initial condensation to the final conflagration of a world system is called Kalpa. Siddhartha Gautam, an Indian sage in the sixth century B.C., became known as Buddha. He pictured Kalpa beautifully by saying: “Imagine a mountain of the hardest rock, much larger and higher than the highest peaks of the Himalayas. Now, suppose a person from Varanasi, Kasi, travels to this mountain once every one hundred years to touch it with the sheerest silk gauze, and, then, the time it would take to wear the entire mountain away would be about the length of a Kalpa.” One should not think the Kalpa period is utopia.

In the long range of creation, one hundred years of human life span is merely the blinking of an eye. Scientifically, the radiation rods, used in nuclear reactors, continue to radiate for 700,000 years. According to the geological time scale, the Precambrian Period existed 600,000,000 years ago. Carl Sagan, whose work is respected by N.A.S.A (National Aeronautics and Space Administration), gave serious consideration to the research of Kalpa (see the answer #17)

## Q (21): What are the parameters of time calculations?

A (21) According to Hindu thought, time travels in gigantic cycles. Time starts with the onset of creation, Sristi, and time stops with the end of creation, but, at the same time, dissolution, Pralaya, begins. It is like a circle, for a circle has no beginning or end! In the life of a person, however, the time of birth to the time of death is only a relative time span. In this respect, time is in linear form making a straight line.

This linear human life span of time is minuscule, like a drop of water in the seven seas, when compared to the gigantic time circles. Nonetheless, this linear time is accepted as standard in the western world. Below are some parameters, units of time, for these gigantic time circles (see figure).

### Units of Time

Largest measure of time: Kalpa	4.32 billion years
Smallest measure of time: Paramanu	60,750th of a second
Other measure of time: Krati	34,000th of second
Truti	300th of a second
Nimesa	16/75th of a second
Vipal.	2/5th of a second

Ksan	1 second
Pal	24 seconds
Minute	60 seconds
Ghadi	24 minutes
Hora	Hour (60 minutes)
Divasa	Day (24 hours)
Saptaha	7 days (week)
Masa	four weeks (month)
Varsa	twelve Months (Year)
Satabda	One hundred Years (Century)
Sahasrabda	One thousand Years (Millennium)
Deva yuga	12,000 years
Chaturyuga	Sata+Treta+ Dwapara+Kaliyuga
Chaturyuga/Mahayuga	4,322,000 years
71 Chaturyuga	Manvantara
14 Manvantara	Creation, Sristi
Sristi	One day of Brahma = 1,000 Chaturyuga
Pralaya	One night of Brahma = 1,000 Chaturyuga

The ancient Vaidic sage, Maitreya, gave the table of time units as follows:

One Anu equals	2 Paramàçu
One Trasarenu	3 Anu
One Truti	3 Trasarenu
One Vedha	100 Trutis
One Lava	3 Vedha
One Nimesa	3 Lavas
One Kastha	15 Nimesa
One Kala	30 Kasta
One Muhurta	30 Kalas
One day and night (24 hours)	30 Muhurtas

Therefore, Paramanu is the smallest unit of time which equals to 60750th of a second. The above time parameters are still used in Vedic Astronomy, Jyotis.

## Q (22): How can one calculate or remember these unbelievable numbers?

A (22): Ancient Vaidic sages and seers knew the Universe contracts and then expands continuously. Astronomy and the other sciences were the part of life as taught by the Vedas. Sayanacharya, in his

commentary on Rgveda, 1/50/40, describes the velocity of light, sun light travels 2202 Yojanas\* in a half Nimeia, for example 8/75 second (S. R. N. Murthy). Yojana\* is defined in the table as follows:

One Yojana	Four Krosa
One Krosa	2000 Danda
One Danda	Two Yards
1760 yards	One Mile

One Yojana equals approximately nine miles, and light travels 2202 Yojana in half a Nimesa (8/75 second). Therefore, the speed of light equals 187,670 miles per second. The modern speed of light is 186,281.7 miles per second. In 1887, Michelson and Morley conducted experiments and determined that the velocity of light is 186,281.7 miles per second. Modern science has calculated a light year as the distance light travels in a year which is 5,874,579,691,000 miles, but who can remember that? In the ancient Vaidic system of education called Gurukul, a Guru, or a resident teacher, taught students the tricks of memorizing the mathematical tables and other calculations. This author was also exposed to such institutions, called Pathsal, where one had to memorize multiplication and other tables including fractions up to the table of one hundred.

## **Q (23): How much time is left before the present, Sristi, creation of the universe ends, and Pralaya, dissolution begins?**

A (23): Relax, do not worry, for the end is not near. As calculated earlier, there are 2,333,226,900 years left before the current creation, Sristi, ends.

Physics professor Stephen Hawking at Cambridge University, Cambridge, England, calculated the life of the sun as ten billion years, after which the sun will swell up and engulf the earth. Therefore, one should not be surprised at these figures, for Vaidic calculations also talk of numbers in billions.