# Om Shree Krishnaya Param Brahmane Namah! <br> Om Namo Bhagavathe Vaasudhevaayah! Om Namo Bhagavathe Vaasudhevaayah! <br> Om Namo Bhagavathe Vaasudhevaayah! Om Namo Bhagavathe Vaasudhevaayah! Om Namo Bhagavathe Vaasudhevaayah! Om Namo Bhagavathe Vaasudhevaayah! Om Namo Bhagavathe Vaasudhevaayah! Om Namo Bhagavathe Vaasudhevaayah! Om Namo Bhagavathe Vaasudhevaayah! Om Namo Bhagavathe Vaasudhevaayah! Om Namo Bhagavathe Vaasudhevaayah! Om Namo Bhagavathe Vaasudhevaayah! 

॥ ॐ नमो भगवते वासुदेवाय ॥
Om Namo Bhagavathe Vaasudhevaayah!
श्रीमद्धागवतं
SREEMADH BHAAGAWATHAM MOOLAM (ORIGINAL)

पश्चमस्कन्ध:
PANJCHAMASKANDDHAH (CANTO FIVE)
॥ एकविंशोडध्यायः ॥

## EKAVIMSATHITHAMOADDHYAAYA (CHAPTER TWENTY-ONE)

JyothisChakraSooryaretthaMandala Varnnanam [Aakaasa Bhoogola Vivaranam] (The Orbits or the Marks of Sun's Chariot Wheel and the Movements of Sun [Narration of the Sky and the Glob of Universe])
[In this chapter we can read about the movements of the Sun and its details. The Sun is not stationary according to this concept. \{The Sun is stationary in relation to its planets and satellites. Similarly, the Sun and all other Stars are also orbiting in relation to the whole universe or the MaayaaPrepanjcham.\} The Sun is the most opulent King of all its Planets. We can read the details that under each Zodiac sign what is the length of the daytime and nighttime on the Earth. What are the solstices and what
impacts do they have in the length of time and so forth? We will see the exact time the Sun takes for moving from Dhevaddhaanee to Samyemanee and Samyemanee to Nimlochanee and Nimlochanee to Vibhaavaree and then from Vibhaavaree back to Dhevaddhaanee. This chapter provides the details of the Chariot of Sun and its measures and who are all sitting in his Chariot, etc. Please continue to read for more details...]

श्रीशुक उवाच

## SreeSuka Uvaacha (Sree Suka Brahmarshi Said):

$$
\begin{gathered}
\text { एतावानेव भूवलयस्य सन्निवेशः प्रमाणलक्षणतो } \\
\text { व्याख्यातः ॥१॥ }
\end{gathered}
$$

## 1

Ethaavaaneva Bhoovalayasya samnivesah premaanalekshaNatho vyaakhyaathah

Hey Pareekshith Mahaaraajan! Thus, I have narrated the diameter, the width, area and other dimensions and general characteristics of the universe according to the calculations and estimations of the learned scholars.

> एतेन हि दिवो मण्डलमानं तद्विद उपदिशन्ति
> यथा द्विदलयोर्निष्पावादीनां ते अन्तरेणान्तरिक्षं तदुभयसन्धितम् ॥ २॥

Ethena hi dhivo mandalamaanam thadhvidha upadhisanthi Yetthaa dhvidhelayornnishpaavaadheenaam.

In the opinion of expert astronomers and geographers, if we split the grain of wheat into two portions the upper portion will have the same dimensions as the lower portions also. Similarly, if we know the measures of Bhoogola or the Sphere of Earth we can precisely determine the measures of the Bhuvarloka or Sphere of Heaven also.

# यन्मधयगतो भगवांस्तपतां पतिस्तपन आतपेन त्रिलोकीं प्रतपत्यवभासयत्यात्मभासा स एप उदगयनदक्षिणायनवैषुवतसंज्ञाभिर्मान्यशैछ्यमानाभिर्गतिभिरारोहणावरोहणसमानस्थानेषु यथा सवनमभिपद्यमानो मकरादिषु राशिष्वहोरात्राणि दीर्घह्नस्वसमानानि विधत्ते ॥ ३॥ 

The antharenaanthareeksham thadhubhayasanddhitham. Yenmaddhyagetho Bhagawaamsthapathaampathisthapana aathapena Thrilokeem prethapathyavabhaasayathyaathmabhaasaa sa esha udhagaYana dhekshinaayanavaishuvathasamjnjaabhirmmaandhyasaighryaSamaanaabhirggethibhiraarohanaavarohanasamaanastthaaneshu Yetthaasavanamabhipadhyamaano makaraadhishu raaseeshvahoraathraaNi dheerghahresvasamaanaani viddhaththe.

The sky between the sphere of earth and heaven is called Anthareeksha. The Anthareeksha joins the top or upper portion of the earth with the bottom or lower portion of heaven. Sun is located in the middle of the region of outer space or Anthareeksha. The Sun is most opulent and the king of all the planets that emanates heat and light such as the Moon. By the influence and power of radiation Sun provides heat and energy to the universe and all the planets within the universe and maintains them always in proper order. It also provides light enabling all the entities of the universe to see and to be seen. While moving towards north, towards south or in the equator, according to the will of Supreme Soul Lord Sri Vaasudheva Sri Maha Vishnu Bhagawaan, it is said to move slowly, swiftly or moderately. According to the movements of the Sun in rising above, going beneath or passing through the equator and correspondingly coming in touch with various signs of the zodiac headed by Makara or Capricorn, days and nights could be short, long or equal to one another. [The distance from Sun and the time each planet takes to orbit Sun determines the length of day and night. And the solstices and distance of the specific region of the planet determines the length of day and night. The portion in the equator should have equal length for day and night.]

## यदा मेषतुलयोर्वर्तते तदाहोरात्राणि

> समानानि भवन्ति यदा वृषभादिषु पश्चसु च राशिषु चरति तदाहान्येव वर्धन्ते ह्नसति च मासि मास्यैकैका घटिका रात्रिषु ॥

## 4

Yedhaa Meshathulayorvvarththathe thadhaahoraathraani samaanaaNi Bhavanthi yedhaa vrishabhaadhishu panjchasu cha raasishu charathi tha-
Dhaahaanyeva vardhddhathe hresathi cha maasi maasyekaikaa Ghatikaa raathrishu.

When the Sun passes through Mesha or Aries [March 21st to April 20 ${ }^{\text {th }}$ ] and Tula or Libra [September 24th to October $23{ }^{\text {rd }}$ ] the duration of day and night are equal. [This is the time period the equator is closest to the Sun.] When it passes through the five signs headed by Vrishabha or Taurus [April 21st to May 21st] until it reaches Karka or Cancer [June 22nd to July $\left.22^{\text {nd }}\right]$ and then it gradually decreases. [Please understand as the planets are moving around the Sun it will not be in the order of the months.]

यदा वृश्चिकादिषु पश्चसु वर्तते तदाहोरात्राणि
विपर्ययाणि भवन्ति ॥ ५॥

## 5

Yedhaa Vrischikaadhishu panjchasu varththathe thadhaahoraathraani Viparyayaani bhavanthi.

Thus, the northern solstice of five zodiac signs starting from Vrischika or Scorpio to Meena or Pisces the night will gradually increase, and day will correspondingly decrease half an hour for every zodiac sign.

> यावद्दक्षिणायनमहानि वर्धन्ते यावदुदगयनं
> रात्र्यः ॥ ६॥

Thrayah.
Until the Sun travels to the south the day grows longer and until the Sun travels to the north the night grows longer.

> एवं नवकोटय एकपश्चाशल्लक्षाणि योजनानां
> मानसोत्तरगिरिपरिवर्तनस्योपदिशन्ति तस्मिन्नैन्द्रीं पुरीं पूर्वस्मान्मेरोर्देवधानीं नाम
> दक्षिणतो याम्यां संयमनीं नाम पश्चाद्वारुणीं
> निम्लोचनीं नाम उत्तरतः सौम्यां विभावरीं नाम
> तासूदयमध्याहनास्तमयनिशीथानीति भूतानां
> प्रवृत्तिनिवृत्तिनिमित्तानि समयविशेषेण मेरोश्चतुर्दिशम् ॥ ७॥

## 7

Evam nava kotaya ekapanjchaasallekshanaani yojanaanaam Maanasoththaragiriparivarththanasyopadhisanthi thasminnalNdhreem pureem poorvvasmaanmerordhdhevaddhaaneem naama dhekshinatho
Yaamyaam Samyemaneem naama paschaadhvaaruneem Nimlochaneem
Naama uththarathah saumyaam vibhaavareem naama thaasoodhayamaddhyaa-
Hnaasthamayaniseetthaaneethi bhoothaanaam prevriththinivriththinimiThthaani samayaviseshena merorschathurdhdhisam.

Hey Mahaaraajan! The ancient, learned scholars have determined that the Sun [Actually all the planets of the universe is orbiting the Sun) has to travel a distance of Nine Crore Fifty One Lakhs Yojanaas $(95,100,000)$ [95,100,000 x $8=760,800,000$ miles] in order to cover all the sides of Maanasoththara Mountain in a circle. The city named as Dhevaddhaanee which is possessed by Indhra or Dhevendhra is in the east of Maanasoththara known as Sumeru or Meru Mountain. Similarly, in the south the City of Samyemanee possessed by Yemaraaja, in west the City of Nimlochanee possessed by Varunabhagawaan and in north Vibhaavaree possessed by Chandhrabhagawaan or Moon-god are located. Sunrise, midday, sunset and midnight occur in all those places according to
specific times, thus engaging all the living entities in their various occupational duties and also making them disengage from their duties.

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तत्रत्यानां दिवसमध्यड्गत एव सदाउडदित्यस्तपति
    सव्येनाचलं दक्षिणेन करोति ॥ ८|
```


## 8

Thathrathyaanaam dhivasamaddhyamgetha eva sadhaaaadhithyasthapathi Savyenaachalam dhekshinena karothi.

$$
\begin{aligned}
& \text { यत्रोदेति तस्य ह समानसूत्रनिपाते निम्लोचति } \\
& \text { यत्र क्षचन स्यन्देनाभितपति तस्य हैष समानसूत्र- } \\
& \text { निपाते प्रस्वापयति तत्र गतं न पश्यन्ति ये तं } \\
& \text { समनुपश्येरन् ॥ ९॥ }
\end{aligned}
$$

9
Yethrodhethi thasya
Ha samaanasoothranipaathe nimlochthi yethra kvachana syendheNaabhithapathi thasya haisha samaanasoothranipaathe presvaaPayathi thathragetham na pasyanthi ye tham samanupasyeran.

The Sun always remains directly above the Sumeru Mountain. Therefore, for them it is always like midday as the Sun is very effulgent. Although the Sun moves on the left it makes Bhooloka, Bhuvarloka and Sumeru appear on its right. Whenever the Sun rises in one direction, then exactly at the same time in the opposite directions the Sun will set. When at one place the Sun is hottest at midday exactly at the opposite side of the globe it will be the coolest at midnight. When you can see the beautiful Sun at one place, if you go to the opposite side at the same time, you cannot see the Sun.

> यदा चैन्द्राः पुर्याः प्रचलते पश्चदशघटिकाभिर्याम्यां
> सपादकोटिद्वयं योजनानां सार्धद्वादशलक्षाणि
> साधिकानि चोपयाति ॥?०॥

Yedhaa Chaindhryaah puryaah prechalathe panjchadhesaghatikaabhiRyaaymyaam sapaadhakotidhvayam yojanaanaam saardhddhadhvaadhesaLekshaani saadhikaani chopayaathi

एवं ततो वारुणीं सौम्यामैन्द्रीं च पुनस्तथान्ये च
ग्रहाः सोमादयो नक्षत्रैः सह ज्योतिश्चक्रे सम-
भ्युद्यन्ति सह वा निम्लोचन्ति ॥ १ ? ॥
evam thatho vaaru-
Neem saumyaamalndhreem cha punasthatthaa. Anye cha grehaah Somaadhayo nakshathraih saha jyothiSchakre samabhyudhyanthi saha vaa nimlochanthi.

The Sun travels from Dhevaddhaanee, the abode of Indhra, to Samyemanee, the abode of Yemaraaja, a distance of Two Crore ThirtySeven Lakhs Seventy Fifty Thousand (23,750,000 = 20,000,000 + $2,500,000+1,250,000)$ Yojanaas or Nineteen Crore $(190,000,000)$ Miles in Fifteen (15) Ghatikaas which is equal to Six (6) Hours. Then from the city of Samyemanee the Sun travels to Nimlochanee, the residence of Varuna, and from there to Vibhaavaree, the residence of Moon-god, and then back to Dhevaddhaanee in the same speed. [It is the general rule that when the Sun travels through a particular path that area will have daytime and opposite side will have night time. That means the Sun will be visible for twelve hours $(6+6)$ or daytime will be twelve hours and nighttime also twelve hours.] Just like Sun, the Moon and all other Planets and all other Stars also travels through the same Path or Direction in different speed and time within their own orbits. And when they travel through a particular route, we call they rise there and would be visible in that celestial sphere and at the opposite side we say they set and would be invisible in that celestial sphere.

> एवं मुहूर्तेन चतुस्त्रिंशल्लक्षयोजनान्यष्टशताधिकानि सौरो रथस्त्र्यीमयोऽसौचतसृषु परिवर्तते पुरीषु ॥ ? २॥

> Evam muhoorththena chathusthrimsallekshayojanaanyshtasathaaddhiKaani Sauro retthasthreyeemayoasau chathasrishu parivarththathe Pureeshu.

Thus, the chariot of Sun-god knows as Threyeemaya or the one which is worshipped by the three words [Om Bhoor Bhuvasvah] travel at a speed of Thirty-Four Lakhs Eight Hundred $(3,400,800)$ Yojanaas [27,206,400 Miles] in One (1) Muhoorththa. [One Muhoorththa is Forty-Eight Minutes.]

> यस्यैकं चक्रं द्वादशारं षण्नेमि त्रिणाभि संवत्सरात्मकं
> समामनन्ति तस्याक्षो मेरोर्मूर्धनि कृतो मानसोत्तरे कृतेतरभागो यत्र प्रोतं रविरथचक्रंतैलयन्त्रचक्रवद्रम् मानसोत्तरगिरौ परिभ्रमति ॥ ?३॥

## 13

Yesyaikam chakram dhvaadhesaaram shannemi thrinaabhi samvaThsaraathmakam samaamananthi thasyaaksho Merormmoordhddhani kritho Maanasoththare Krithetharabhaago yethra protham Reviretthachakram Thailayenthrachakravadh bhremanmaanasoththaragirau paribhremathi.

The chariot of Sun-god has only one wheel and it is called Samvathsaram or Year. The twelve spokes on the wheel represent the twelve Months of the year. The six rims are considered to be the six Seasons. The hub of the wheel has three sections, and these hub-sections represent Chaathurmmasya or Four-Month time periods of the year. One side of the axle carrying the wheel rests upon the summit of Sumeru Mountain and the other on Maanasoththara Mountain. Affixed to the outer end of the axle, the wheel continuously rotates on the Maanasoththara Mountain like the wheel of Thaila-Yenthra or an Oil-Pressing machine.

> तस्मिन्नक्षे कृतमूलो द्वितीयोऽक्षस्तुर्यमानेन सम्मितस्तैलयन्त्राक्षवद्ध्रुवे कृतोपरिभागः ॥ १४॥

Thasminnakshe krithamoolo dhvitheeyoakshasthuryamaanena saMmithasthailayenthraakshavath Ddhruve krithoparibhaagah.

Just as in the case of an Oil-Pressing machine the first axle is attached to the second axle, which is one-fourth as long. The upper end of the second axle is connected to Ddhruvaloka by a rope of wind. [That means it is an invisible rope. The principle is that everything is connected to everything else by air or by space. What an amazing concept!]

> रथनीडस्तु षट्तिंशल्लक्षयोजनायतस्तत्तुरीयभाग-
> विशालस्तावान् रविरथयुगो यत्र हयाश्छन्दो
> नामानः सप्तारुणयोजिता वहन्ति देवमादित्यम् ॥ १५॥

Retthaneedasthu shatthrimsallekshayojanaayathasthaththureeya bhaagaVisaalasthaavaan Reviretthayugo yethra hayaascchandhonaaMaanah sapthaarunayojithaa vahanthi dhevamaadhithyam.

Hey Mahaaraajan! The length of the carriage of Sun-god Chariot is ThirtySix Lakhs $(3,600,000)$ Yojanaas $[28,800,000$ Miles] and the width is OneFourth of the length which is Nine Lakhs $(900,000)$ Yojanaas $[7,200,000$ Miles]. The horses of the chariot are named as Gayathri and other Vedhic Manthra syllables. The horses are harnessed or tied by Arunadheva or Arunabhagawaan to a yoke which is also Nine Lakhs Yojanaas wide. This chariot continuously carries the Sun-god. [Arunadheva or Aruna is the chariot driver. He is the son of Kasyapa Prejaapathi and Vinitha. He is the elder brother of Geruda-Bhagawaan.]

> पुरस्तात्सवितुररुणः पश्चाच्च नियुक्तः सौत्ये
> कर्मणि किलास्ते ॥ ? ॥॥

PurasthaathsavithurArunah paschaachcha niyukthah sauthye karmmaNi kilaasthe.

Though Arunadheva, the chariot driver, sits in the front of the chariot and controls the horses and drives the chariot he is looking backwards towards the Sun-god. That means Arunadheva and Sooryabhagawaan are looking for face to face. The Sun-god engages in duty by making Aruna drive the chariot looking backwards. [See if he looks forward Aruna cannot stand the brilliance of the Sun-rays. That is why he is looking backward. Also, Aruna does not wish to sit backwards to Sun and therefore he sits face to face with Sun.]

> तथा वालिखिल्या ऋषयोङ्गुष्ठपर्वमात्राः षप्टिसहस्राणि पुरतः सूर्यं सूक्तवाकाय नियुक्ताः संस्तुवन्ति ॥ १७॥

## 17

> Thatthaa Vaalakhilyaa Rishayoanushttaparvvamaathraah shashtiSahasraani purathah Sooryam Sookthavaakaaya niyukthaah samsthuVanthi.

There are sixty thousand saintly persons named Vaalakhilya or Vaalakhilyaas or Baalakhilyaas, who are each the size of a thumb, are sitting in front of the Sun-god in the chariot. They worship their preceptor Sooryabhagawaan with eloquent prayers of glorification. [Please read the story of Hanuman approaching Sooryabhagawaan to accept him as a disciple and the denial by Sun saying that Baalakhilyaas, the noblest of the scholarly and saintly Brahmins, would not welcome a Vaanara to sit with them and learn. This story is explained in an article "Hanuman" under "Relevance and Significance of Ramayanam Recital".]

> तथान्ये च ऋषयो गन्धर्वाप्सरसो नागा ग्रामण्यो
> यातुधाना देवा इत्येकैकशो गणाः सप्तचतुर्दश
> मासि मासि भगवन्तं सूर्यमात्मानं नानानामानं पृथङ्नानानामानः पृथक्कर्मभिर्द्वन्द्वश उपासते ॥ १८॥

Thatthaanye cha Rishayo GenddharvvaApsaraso Naagaa GraamaNyo Yaathuddhaanaa Dhevaa ithyekaikaso genaah saptha chathuRdhdhesa maasi maasi Bhagawantham Sooryamaathmaanam naanaanaamaanam

Similarly, there are another fourteen disciples from the groups of Rishees, Genddharvvaas, Apsaraas, Naagaas, Yekshaas, Rekshaas or Asuraas and Dhevaas who are divided into groups of two, assume different names every month and continuously perform different ritualistic ceremonies and devotional services to worship the Supreme God Lord Sri Vaasudheva Sri Maha Vishnu Bhagawaan in the form of Sooryabhagawaan who holds very many different names.

$$
\begin{aligned}
& \text { लक्षोत्तरं सार्धनवकोटियोजनपरिमण्डलं } \\
& \text { भूवलयस्य क्षणेन सगव्यूत्युत्तरं द्विसहस्तयोजनानि } \\
& \text { स भुङ्क्ते ॥ १९॥ }
\end{aligned}
$$

## 19

Lekshoththaram saardhddhanavakotiyojanaparimandalam bhoovaLayasya kshenena sagavyooththaram dhvisahasrayojanaani Sa bhungkthe.

Hey Pareekshith Mahaaraajan! It has been precisely calculated by the learned scholars that: The Sun travels in his orbit a total distance of Nine Crore Fifty-One Lakhs $(95,100,000)$ Yojanaas or Seventy-Six Crore Eight Lakhs $(760,800,000)$ Miles to cover the Bhoo-Mandala or the Universe at a speed of Two Thousand $(2,000)$ Yojanaas or Sixteen Thousand $(16,000)$ Miles per moment.

इति श्रीमद्भागवते महापुराणे पारमहंस्यां संहितायां
पश्चमस्कन्धे ज्योतिश्चक्रसूर्यरथमण्डलवर्णनं नमैकविंशोऽध्यायः ॥ २१॥

Ithi Sreemat Bhaagawathe Mahaa Puraane Paaramahamsyaam Samhithaayaam
Panjchamaskanddhe JyothisChakraSooryaretthaMandala Varnnanam [Aakaasa Bhoogola Vivaranam] NaamaikaVimsathiThamoAddhyaayah

Thus, we conclude the Twenty First Chapter Named as The Orbits or the Marks of Sun's Chariot Wheel and the Movements of Sun [Narration of the Sky and the Glob of Universe] Of the Fifth Canto of the Most Divine and the

Supreme Most and the Greatest Mythology Known as Sreemad Bhagawatham.

Om Shree Krishnaya Param Brahmane Namah! Om Namo Bhagavathe Vaasudhevaayah! Om Namo Bhagavathe Vaasudhevaayah! Om Namo Bhagavathe Vaasudhevaayah!

