## MODEL QUESTION PAPER FOR CERTIFICATE COURSE IN JYOTISHA

## Paper 1

Attempt All questions. Time 2h 30 min

1. Answer in one sentence any 10 questions (each 2 marks)
a. Jyotisha is a part of which section of "Shrutis" in Indian Sanatana Dharma?
b. Write the names of Vedangas
c. Name 4 different systems of Astrology
d. What is the role of Vedangas?
e. Name any 4 branches of Astrology
f. Parasari System of Astrology is categorized into 3 parts. Name Them
g. What is the chronology of Astrology with respect to time period?
h. What is the time period of Aryabhata?
i. What are the three basic categories of karma?
j. What is the basis of Astrology?
k. Aryabhatiya (the work of Aryabhata) consists of how many padas?
2. Tajika system is propounded by whom?
m . Varahimihira lived in what time period?
n. Name any three astrological Siddantas?
o. Name any three contributors of Modern Astrolgy.
3. Match the following ( 10 Marks)

|  | Table A | Table B |
| :--- | :--- | :--- |
| 1 | Prarabda Karma | Bruhat Jataka |
| 2 | Parasari system | Sayana System |
| 3 | Aryabhata | Spiral Milkyway |
| 4 | Varaha Mihira | Study of Weather \& geographical events |
| 5 | Westrn Astrolgy | Kalpa |
| 6 | Our Galaxy | Neelakantha |
| 7 | Medini (Mundane) Astrolgy | Uses Nirayana System |
| 8 | Jaimini | For present birth |
| 9 | Vedanga | Great mathematician |
| 10 | Tajika | Disciple of Vyasa |

3. Write short notes for any three: ( 15 Marks)
a. Qualification of Astrologer;
b. Sanchita karma
c. Fixed Zodiac
d. Uses of Astrology
e. Usage of Jyotisha in Vedic period
4. Select the appropriate choice: Indicate choice number Only in the "Choice" column. Correct answer carry (+)2 marks each and wrong answers (-) $0.50(1 / 2)$ mark. Max 30 marks

|  | Choice |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: |
| 1 | Jyotisha is a part of <br> a. Purana; b. Veda; c. Vedanga |  |  |  |  |  |
| 2 | Vedic period preceeds Puranic period |  |  |  |  |  |


|  | a.Yes; b. No; c. Can't say |  |  |
| :--- | :--- | :--- | :--- |
| 3 | Aryabhata wrote Rig veda <br> a.True; b. False; c. Can't say |  |  |
| 4 | Agami Karma means <br> a.Already accrued; b. Fructified now; c. to be accrued in <br> future |  |  |
| 5 | Samhita, Ganita, Hora are part of <br> a.Western Astrology; b. Parasari system; c. Tajika system |  |  |
| 6 | An Astrologer should be a <br> a.Counseller only; b. Mathematician; c. Both a \& b |  |  |
| 7 | Muntha point is unique to <br> a.Tajika; b. Westrn astrology; Parasari system |  |  |
| 8 | Vyakarana Anga of Vedangas refer to <br> a.Astrology; b. Yajurveda; c. Grammer |  |  |
| 9 | Fruits of actions (good or bad) is compulsory to be <br> experienced according to <br> a.Astrology; b. Indian Constitution; c. Karma theory |  |  |
| 10 | According to Parasara knowledge of Jyotisha is from <br> a.Brahma; b. Jaimini; c. Aryabhata |  |  |
| 11 | Astrolgy was irrelevant in Vedic period <br> a.True; b. False; c. Can't say |  |  |
| 12 | Phala jyotisja is contained in <br> a.Vedas; b. Ganita; c. Hora sastra |  |  |
| 13 | Astrology can be used to predict <br> a.Individual's future; b. National events; c. Both a \& b |  |  |
| 14 | Astrology is not relevant in the present period <br> a.True; b. False; c. Can't say |  |  |
| 15 | Astrology is a methodical understanding of positional effects <br> a.Nakshtras; b. Grahas; c. Both a\& b |  |  |
| 16 | Astronomy means study of <br> a.Extra terrestrial matter; b. Vedas; c. None of a\& b |  |  |
| 17 | Western Astrology is a system of <br> a.Vedas; b. Tajika c. None of a \& b |  |  |
| 18 | An astrologer should be a <br> a.a scholar; b. a politician; c. an engineer |  |  |
| 19 | Jaimini \& tajika systems are propounded by <br> a.Varahimira; b. Parasara; c. None |  |  |
| 20 | 丷............. is one part of Vedas <br> a.Jyotisha; b.Sama veda; c. Aryabhatiya |  |  |
|  |  |  |  |

## PAPER II

Attempt All questions Time 2 h 30 min

1. Answer in one sentence any 10 questions (each 2 marks)
a. What is Galaxy?
b. How many planets are in our Solar system
c. Which are the grahas in Indian Astrology?
d. Name any three persons who have contributed immensely to the study of Astronomy in India.
e. Name the latest mission successfully undertaken by India in Astronomy.
f. What is the name given to precession of Equinoxes in Indian Astrology and what is the angular progression per year?
g. What is the circumference of earth at its center?
h. What is the time taken by Jupiter (Guru) planet to go around the Sun?
i. Which is the heaviest planet in our Solar system?
j. Which is the planet that is closest in size and orbital duration to Earth?
k. Name the houses aspected by Sukra \& Kuja in general according to Indian astrology.
2. Name three aspects in Sayana system?
m . Arrange the following in ascending hierarchical order with regard to size: Planets, Galaxies, Universe, Stars, Satellites.
n. Arrange in descending hierarchical order: Vighati, Rutu, Samvatsara, Mahayuga, Kalpa.
o. Why grahas appear to move in reverse, sometimes?
3. Fill in the Blanks: (one mark each)
a. $\qquad$ is largest time unit described in Indian Astronomy.
b. ............. is not a physical graha
c. Sputa (longitude) of $\qquad$ \& $\qquad$ grahas are relevant to find the eclipse
d. A Maha yuga comprises of yugas.
e. ........... number of group of constellations are recognized for the purpose of Fixed Zodiac.
f. $\qquad$ refers to longitudinal difference between Sayana \& Niraya systems.
g. The intersection point between celestial sphere and Ecliptic is called
h. $\qquad$ graha is 11 times bigger than earth.
i. Earth is inclined at an angle of Degrees to its orbit
j. There are Rutus \& masas in a samvatsara.
4. Write short notes on any three: ( 5 marks each)
a. Solar system
b. Retrograde motion
c. Eclipses.
d. 4 cardinal sayana equinoxes
e. Ecliptic \& Celestial sphere
5. Select the appropriate choice: Indicate choice number Only in the "Choice" column. Correct answer carry (+)2 marks each and wrong answers (-) $0.50(1 / 2)$ mark. Max 30 marks

|  |  | Choice |  |
| :---: | :---: | :---: | :---: |
| 1 | Ecliptic is divided into ............. Rasis a.9; b. 12; c. 360 |  |  |
| 2 | Lunar eclipse occur always on the day of. $\qquad$ <br> a.New moon ; b: half moon; c. Full moon |  |  |
| 3 | Each Maha yuga comprises $\qquad$ . samvatsaras a. 43.20 lac; b. 4.32 lac; c. 1000 |  |  |
| 4 | Retrogression of planets is because <br> a.planets move in reverse; b. earth moving in reverse; <br> c.difference in speed of planets with respect to earth |  |  |
| 5 | Solar eclipse occurs when Sun \& Moon are together a.True; b. False; c. Can't say |  |  |
| 6 | Guru aspects apart from $7^{\text {th }}$ house as per Indian Astrology <br> a. $5 \& 6^{\text {th }} ;$ b. $4 \& 8^{\text {th }} ; c .5 \&{ }^{\text {th }}$ |  |  |
| 7 | As per Sayana, Trine aspect refers to a. $180^{\circ}$; b. $120^{\circ} ;$ c. $90^{\circ}$ |  |  |
| 8 | During Solar eclipse the graha in the middle is a.Earth; <br> b. Sun; <br> c. Moon |  |  |
| 9 | The fifth Star constellation in Fixed zodiac is a.Krittika; b. Dhanishta; c. Mrigasira |  |  |
| 10 | Varahimihira was a great exponent of a.Astronomy; b. Astrology; c. Both |  |  |
| 11 | One of the Trikhandas of Indian Astrology is a.Galaxies; b. Vedas; c. Ganita |  |  |
| 12 | Jataka, Prasna, Muhurta are part of a.Zodiac; b. Hora sastra; c. Nakshatras |  |  |
| 13 | Sun is ......... times bigger than earth $\begin{aligned} & \text { a.10; } \\ & \text { b. 1008; c. } 109\end{aligned}$ $\text { a.10; b. 1008; c. } 109$ |  |  |
| 14 | In Indian Astrology Rahu \& Ketu are always <br> a.Together; b. $180^{\circ}$ apart; c. $90^{\circ}$ apart |  |  |
| 15 | There are only 27 star constellations in the Universe <br> a.True; b. False; c. can't say |  |  |
| 16 | In Sayana system, the Zodiac moves $\qquad$ arc seconds per year <br> a.60.3; b. 40.3; c. 50.3 |  |  |
| 17 | In Indian Astrology, all grahas aspect ........th house a.5; b. 9; c. 7 |  |  |
| 18 | In Indian Astrology Rahu \& Ketu are called as a.Chaya grahas; b. Tara grahas; c. Prakashaka grahas |  |  |
| 19 | In Sayana system, $90^{\circ}$ aspect is called as a.Square; b. Sextile; c. Nonile |  |  |
| 20 | Fixed Zodiac is a great circle concentric to orbit of earth a.True; b. False; c. Can't say |  |  |
|  |  |  |  |

## PAPER III

Attempt All questions Time 2h 30 min

1. Write a formal Horoscope with Rasi Chart (D1) and Navamsa Chart (D9) and balance Dasa, referring to Panchanga, for a birth on 01st March 2015 at Bangalore at 17:30 hrs (IST).
2. Wrtite 10 charecteristics each for any 3 Rasis 15 marks
3. Plot Exhaltation position indicating highest point in a Kundali (chart) for all 7 Grahas 05 marks
4. Longitude of Sun $3^{S} 20^{\circ} 30^{\prime}$; Longitude of Moon $6^{S} 45^{0} 00^{\prime}$; calculate running Tithi, Nitya Yoga \& karana 10 marks
5. Select the appropriate choice: Indicate choice number Only in the "Choice" column. Correct answer carry ( + )2 marks each and wrong answers ( - ) $0.50(1 / 2)$ mark. Max 30 marks

|  |  | Choice |  |
| :---: | :---: | :---: | :---: |
| 1 | If the difference in long of Moon \& Sun is less than $180^{\circ}$, then the Paksha is <br> a.Krishna paksha; <br> b. Sukla paksha; c. Pitru paksha |  |  |
| 2 | Vara as per panchanga is a period between a.Sunrise to next sun rise; b. Sun rise to Sun set; c. Sun set to next Sun set |  |  |
| 3 | Vishkamba is a <br> a.Karana; b. Samvatsara; c. Nitya yoga |  |  |
| 4 | The number of Samvatsaras in a cycle is a.12; b. 30 ; c. 60 |  |  |
| 5 | Atma karaka graha is <br> a.Sun; b. Moon; c. Mars |  |  |
| 6 | ............... is/are Chara Rasi/s <br> a.Tula; b. Makara c. Both (1) |  |  |
| 7 | Dina nakshatra in Pancanga refers to position of a.Kuja; b. Budha; c. Chandra |  |  |
| 8 | $\qquad$ Is a Sthira Karana <br> a.Garaje; b. Sakuni; c. Vanik |  |  |
| 9 | Each Rasi Comprises .......... Nakshtra padas $\begin{array}{ll}\text { a.12; } & \text { b. } 30 ;\end{array}$ c. 9 |  |  |
| 10 | Tithi can be Calculated by ......... Iongitude of Sun from Moon <br> a.Subtracting; b. Adding; c. Multiplying |  |  |
| 11 | Dhanu Rasi is Uccha kshetra of a.Budha; b. Sukra; c. Neither |  |  |
| 12 | Kuja \& Ravi are karaka for a.Pitta; b. Kapha; c. Vata |  |  |
| 13 | Colour of Mesha rasi is <br> a.Green; b. Red; c. Yellow |  |  |
| 14 | Each Nakshtra is Divided into ....... Padas a.4; b.9; c. 12 |  |  |
| 15 | All Grahas have their svakshetra as Uccvha kshetra <br> a) True always b) True only for Budha c) False always |  |  |
| 16 | From the panchanga you can find ........ of Graha <br> a) Position b) Strength d) karakatva |  |  |
| 17 | Chitta 3 ${ }^{\text {rd }}$ pada falls in .......... Rasi |  |  |


|  | a.Kanya; b. Mithuna; c. Tula |  |  |
| :--- | :--- | :--- | :--- |
| 18 | Between Ravi \& Budha distance will not be more <br> than <br> a.290 $; \quad$ b. $45^{0} ;$ c. $10^{0}$ |  |  |
| 19 | Ravi \& Chandra will never be in the same Rasi <br> a.True; b. False; c.can't say |  |  |
| 20 | Rahu \& Ketu are always in the same longitude <br> a.True; b. False; c.can't say |  |  |
| 21 | Two of the seven Chara karanas Are <br>  <br> Vaidruti |  |  |

## Paper IV

Attempt All questions Time 2 h 30 min
1.Given the following info cast Navamsa Chart 10 marks

| Graha | Lagn <br> a | Ravi | Chandr <br> a | Kuja | Budha | Guru | Sukra | Sani <br> retro | Rahu | Ketu |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Nakshatr <br> a | Asvini <br> -2 | Dhanisht <br> a 2 | Anuradh <br> a 2 | Purvashad <br> ha 4 | Shatabish <br> a 3 | Jyesth <br> a 2 | Purva <br> bhadr <br> a 2 | Ashlesh <br> a 4 | Purvabhad <br> ra 1 | Purva <br> phalgu <br> ni 3 |

2. Write Bhava names like Tanu, Sahaja etc for all Bhavas
3. Write 5 karatwas each for any 5 bhavas
4. From the details of Question 1, Calaculate Dasa, Bhukti and Antara bhuki (vimshottari) remaining at the time of birth (longitude of Moon is $218^{\circ}$ )

10 marks
5. Write short notes on any three

10 marks

## a. Kendra;

b. Upachaya sthana;
c. Tanu Bhava;
d. Different Methods of Bhava kundali erection
6. Select the appropriate choice: Indicate choice number Only in the "Choice" column. Correct answer carry (+)2 marks each and wrong answers (-) 0.50 (1/2) mark.

|  |  | Choice |  |
| :---: | :---: | :---: | :---: |
| 1 | In Bhava Chart as compared to Rasi Chart the grahas Change houses <br> a) Always b) Sometimes c) Never |  |  |
| 2 | The span of Sukra Bhukti in Rahu dasa is: <br> a) $2 \mathrm{Y}-10 \mathrm{M}$; <br> b) $3 \mathrm{Y}-\mathrm{OM}$; <br> c) $4 \mathrm{Y}-\mathrm{OM}$ |  |  |
| 3 | Third Bhava is Known as a) Tanu Bhava b) Matru c) Sahaja |  |  |
| 4 | The first Bhukti in Guru Dasa is a) Sani; b) Rahu; c) Guru |  |  |
| 5 | Bhava Chart in Sripati Paddhati the Kendra Bhavas $(1,4,7,10)$ are always equal to <br> a) $30^{\circ}$ b) $36^{\circ}$ c) $12^{\circ}$ |  |  |
| 6 | Lagna for the same time differs from place to place <br> a) True b) False c) can't say |  |  |
| 7 | If Chandra is in Makara $3^{0} 40^{\prime}$ at time the of Birth, the running dasa is <br> a) Ravi b) Chandra c) Sani |  |  |
| 8 | In Bhava Chart by Sripati Paddhati all houses are equal a) True b) false c) can't say |  |  |
| 9 | Navamsa span is equal to 1 Nakshatra pada <br> a) True b) False c) Can't say |  |  |
| 10 | Navamsa of Ashwini, Sravana \& Puarvasu starts from a.Meshaamsa; b. Tulaamsa; c. Dhanuramsa |  |  |
| 11 | If at Birth Chandra is in Mesha $20^{\circ}-0^{\prime}$, the balance of Dasa is <br> a) Kuja-3Y-6M; <br> b) Sukra-10Y-0M; <br> c) Ketu $3 \mathrm{Y}-6 \mathrm{M}$ |  |  |
| 12 | Navamsa of Swati $3^{\text {rd }}$ pada is plotted in ....... a.Meshamsa; b. Dhanuramsa; c.Kumbhamsa |  |  |
| 13 | Guru is Bhava karaka for <br> a) $5^{\text {th }}$ House b) $2^{\text {nd }}$ House c) Both a \& b |  |  |
| 14 | The span of each Navamsa is ................ $3^{0} 20^{\prime}$ <br> a) Greater than; b) Less than; c) equal to |  |  |
| 15 | Ravi not Bhava karaka for a) $7^{\text {th }}$ House b) $1^{\text {st }}$ House c) $9^{\text {th }}$ house |  |  |
| 16 | In vimshottari Dasa, Dasa period of Sani is a) 16 yrs; b) 17 Yrs; c) 19 yrs |  |  |
| 17 | Bhavas, in an individual chart, indicate |  |  |


|  | a) All aspects of life; b) Tri doshas; c) None of a \& b |  |  |
| :--- | :--- | :--- | :--- |
| 18 | $5^{\text {th }}$ house from Lagna is <br> a) Sukha bhava; b) Shatru bhava; c) Putra bhava |  |  |
| 19 | In vimshottari Dasa total of all dasa period is equal to <br> a) 108 yrs; b) 100 yrs; c) 120 yrs |  |  |
| 20 | Ravi antara bhukti in Sukra dasa and Sukra bhukti is <br> a) $0 Y-2 \mathrm{M} ; \mathrm{b}) 0 \mathrm{Y}-1 \mathrm{M} ; 0$; -6 M |  |  |
|  |  |  |  |

## 

## 이웅 1

## 

 20 అ๐も












13．ఎరృळ మికిరన శృల ంకూఙుదు？



10 అ๐च

|  | ఎ Шైట్ట్ | బి జెట్ట్ |
| :---: | :---: | :---: |
| 1 |  | బృळతో జృతも |
| 2 | Шరాపరి Шబ్ధృ | సారున Ш゙ద్ధె |
| 3 | ఆరుદ భీ |  |
| 4 | ఎరాఙ మిఃర |  |
| 5 |  | చల |
| 6 | సప్మ గిలార్ల | నిలలచంఠ |
| 7 | జెలదిని（Шుండినా）జిల్యలరై | నిరుయుణ ய్రు్ధి అసుసెర |
| 8 | జ్లెమిని | ఈ జన్మ |
| 9 | むొలదృంగ్ | กణిత రృస్సె，జ్ఱ |
| 10 | उ๖జも |  |
|  |  |  |

 15 అ๐も

2．నిరరుు భひた






|  |  |  |  |
| :---: | :---: | :---: | :---: |
| 16 |  <br>  |  |  |
| 17 |  <br> ఎ）ఎొలడ；బి）తాజిళ；సi）ఎరడృ అల్ల |  |  |
| 18 | జిల్యాలిజయుు ఎనాగిరబబఁకు <br> ఎ）யౌంఱిత； <br> బి）రృజశృరిణి； <br> ～）Јంత్రజ్ణ |  |  |
| 19 | జ్లిమిని జ్రద్ది ంకూరించ నిరృఎజిసితు <br> ఎ）山రాఃంమిఃఃర； <br> బి）తాజిశ； <br> ～）ఎరడృ అల్ల |  |  |
| 20 | $\qquad$山ు విలひద ఒండు భాగ <br>  <br> బి）సెముむొలా； <br>  |  |  |
|  |  |  |  |

## 루웋 2

## 

 20 అ○も
1．గిలాఫ్ర్ ఎండరెలను？







8．$\dot{\text { సై }}$

 యోవబ్యుు？








2．2ృలి జృగ山న్ను భతిఁ ஹృณ 10 అ○も
1.

2. ซృంువిల గ గुळ
3. $\qquad$
4. $\qquad$
5.

6. $\qquad$


8.

 $\qquad$
10．ఒందు స్సంజత్లరపదల్ ขుతుగఆు Шుత్త $\qquad$ ஹూฝีఆళ


1．$\dot{\vec{j}} \mathbf{D} \boldsymbol{\omega}$
2．గुळగ $\omega$ హ
3．กुळణกษช




$\qquad$

|  |  | ఆ०3్వ 기우 |  |
| :---: | :---: | :---: | :---: |
| 1 | భఔひ్రెひస్ను $\qquad$ ．రాలిగళాగి వింగఙిసడది <br> ఎ）9；బి）12； <br> ～） 360 |  |  |
| 2 | びంద్ర గ్రేణథ్రు ంృృఱాగెలృ $\qquad$ దినదందు ఆగుత్తઢి <br> ఎ） <br> అふృఱృ ${ }_{20}$ ； <br> బి）అధદ ఔంద్ర； <br> ～ั）யెణణณిల |  |  |
| 3 | థ్రైతి జుळాయుుగేచు $\qquad$ <br>  <br> ఎ） 43.20 లt్డ； <br> బి） 4.32 లt్ట； <br> ～） 1000 |  |  |
| 4 |  <br>  <br>  |  |  |
| 5 |  ఎ） $\bar{\sim}$ ర；బి）త |  |  |
| 6 |  $\qquad$ <br>  <br> ఎ） 5 ఎుత్తు 6 ； <br> బి） 4 బుత్తు 8 ； <br> ～） 5 ఎుత్తు 9 |  |  |
| 7 |  <br> ఎ） $180^{\circ}$ ； <br> ひิ） $120^{\circ}$ ； <br> ฉ） $90^{\circ}$ |  |  |
| 8 |  <br>  |  |  |
| 9 |  ఎ）శృత్తిశఠా；బి）ఛనిజ్ట్ట్ ；～ั）山ృగలిర |  |  |
| 10 | ఎరాఃిమిఃరను ంృృవుదరల్లి తజ్లను <br>  |  |  |
| 11 | భారతిలంకు జీల్యలతిష్ల్లి త్రిఎండద ఒండు భాగ <br>  |  |  |
| 12 |  <br> ఎ）భఙఙも； <br>  <br>  |  |  |
| 13 |  <br> ఎ） 10 ；బి） 1008 ；～ั） 109 |  |  |



## 리웅 3

## 


 03－2015，ટ્బ్ఞ：బొంగళృరు అ○も 15
 అ○も 15


 అ○も 10




|  |  | ఆO35 <br> 궁 |  |
| :---: | :---: | :---: | :---: |
| 1 |  <br>  |  |  |
| 2 | 戸్ひాంగడంతి，ఎారతిండరి ఈ అ山ధియు <br>  <br>  <br>  |  |  |
| 3 | ఎిひ్జ్రంబబు ఒందు <br> ఎ）चరణ； <br> బి）ప్సంత్సర； <br> ～）నిత్ల |  |  |
| 4 | ఒండు ఆహతఁడల్లి స్పంఎత్సరగళ ప్సంఖ్యి <br> ఎ） 12 ；బి） 30 ；̊） 60 |  |  |
| 5 | ఆత్య శృరも గ్రెळేపు <br> ఎ）えંอయひを； <br> బి）జండ్ర； <br> ～）चృజ |  |  |
| 6 | జేర రాలి యృృవుడు <br> ఎ）తులా；బి）ఐుచర；～ْ）ఎరడృ |  |  |
| 7 |  ఎ）చుజ；బి）బుభ；～̊）ఔండ్ర |  |  |
| 8 | స్థిర చరణ ంృూపుడు <br> ఎ）గరజే； <br> బి）తపుని； <br> ～）むణిซో |  |  |
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| 10 |  $\qquad$ చండుః్ఱియుబిలశు <br> ఎ）ซళిడు； <br> బి）శృృఱ； <br> ～ั）กుణ゚～ |  |  |
| 11 |  <br> ఎ）బుథ；బి）తుప్ర；～～）ఎరడృ అల్ల |  |  |



## 루웋 4

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# KARNATAKA SANSKRIT UNIVERSITY- BENGALURU 

## SYLLABUS FOR CERTIFICATE COURSE IN JYOTISHYA

Re revised Date : 24/05/2014

# Paper - I General Astrology, Chronlogy and Karma Theory 100 Marks (75 Theory + 25 Home Assignment) 

Part-A, General Astrology:

1. Introduction to Astrology(Hindu Jyothishya system)-

Astrology is a knowledge propounded by Rishis of Yore who found that the planetary motion, with respect to earth as centre, bring about a change in every aspect in everything that exists in-and-on the Earth. This knowledge, considered as a Divine knowledge, has never faded off or forgotten till this day. It has stood strong since the time of lagadha Muni during Tretayuga, and has been developing since then to find its application for various other purposes such as checking the individual traits of a person before employing him in a job, to assess the mental attitude to suggest remedies to psychic patients, to decide the course of education or the business best suited to the native, etc..

Astrology is a tool to define what is likely to happen in future, not limiting to a man alone, but to foresee happenings to the entire world, such as foreseeing occurrence of famine period, excess rain, flood-fury, epidemics, eruption of volcanoes, landslides / earth quakes, war, government efficacies. All these can be predicted with the knowledge of Thrikandas, 1) Ganitha- 2) Samhita-3) Hora.

Astrology is based on Astronomy. Knowledge about a) Tithis, a measure of distance in radiance between Sun and Moon; b) Nakshatra 27 stars among trillions of stars c) Occurrence of seasons such as summer, rainy, winter etc of a year based on the position of Sun with respect to Earth; d) The time of Sunrise and Sunset, for every day e) Duration of day and night and accurate time measurement f) Distance of planets with reference to position of earth; g) The period of axial rotation and of Orbital motion of planets; h) The points of intersection of the path of Sun and the Moon called Rahu and Ketu , i) Exact time of occurrence of eclipse on a full Moon day or on a new Moon day; are all astronomical factors, calculation of which were
done and established in the Pancha Siddhantas are all the works of our Rishis, which was done when no telescopes or observatories existed..

The 7 Planets In Vedic Astrology, Sun, Moon, Mars, Mercury, Jupiter, Venus, Saturn, their motion around the Earth as centre and the two nodal points as Grahas, called Rahu and Ketu.are considered important for prediction Astrology practiced in other countries do not given importance to Rahu-Ketu whereas, planets Uranus, Neptune, Pluto, are given importance which do not find a importance in Vedic astrology.

Astrology was well known to Barateeyas and was being practiced in Tretayuga, proof of which lies in the great epics, Raamyana and Mahaabhaarata. In that, the muhurtha of Sri Rama's Pattabhishekam (Crowing-ceremony) was fixed on an auspicious Tithi by Mahashi Vasistha. During Dwaparayuga, the great war of Mahabhaarata started on the day fixed by Sahadeva of the Pandavas, when he was approached by Duryudhana of Kauravas to fix muhurtha in favour of Kauravas winning the war.

Since then, application of knowledge of Astrology has been in use for everything and for determining the time for every event in the life of a man, such as for, plowing the land, sowing the seeds, harvesting the yield, selling-buying of goods, for sinking a well or constructing a water tank, for building house, in matchmaking, for marriage, and for the rest of the Shodasa samskaras, Thus, astrology has become a guide for day to day activities of everyone.

## Definition,

Astrology is one of the Vedangas, is a knowledge of futurology concerned with everything on-and-in this earth, and is based upon the knowledge of astronomy concerned with 12 Zodiac signs, 27 constellations, and 7 planets plus 2 nodal planets.

## Branches of Astrology,

Agriculture Astrology, Aarogya Jyotisha (Medical astrology), Horare Astrology, Medini Jyotisha, Muhurtha (Election Astrology), Prashna Shaastra, Parihaara Maarga (Remedial astrology), Nadi astrology Varshaphala (Tajika),

## systems of Astrology(Parasara, Jaimini, Thajak systems; Vedas \& Vedangas)

Vedas \& Vedangas: Veda means knowledge which is composed of hymns in Sanskrit.. It is supposed to have been disseminated by Lord Brahma, so, is said to be 'Apourusheya', meaning it is not of human origin. The chanting of hymns are listened to
and learnt, so, it is called SHRUTI.. The learner of Vedic knowledge has to have an explicit knowledge of Vedangas, as a prologue, which consists of 6 different kinds of basic knowledge. They are Shiksha, Vyakarana, Chandassu, Nirukta, Kalpa, Jyotisha (Astrology). Jyotisha is said to be the CHAKSHUS (Eyes ) of Veda, for, it helps to determine an APPROPRIATE TIME (Muhurtha) to practice and perform Vedic-rites/ rituals. 'Vedic-Astrology' is a name thus derived, in the recent past, to distinguish the knowledge originated by Hindus, from that of the Astrology practiced by other religions..

## Rishi Parashara

Sage parashara is the grandson of Sage Vasistha who is the son of Lord Brahma (Brahma Maanasa Putra). .Sage Vasistha was taught Astrology by Lord Brahma. His son Shakti Muni died when his son Parashara was a child.. So, Parashara was brought up by his grandfather. The principle of astrology pioneered by Rishi Parashara is a monumental work and is popular among seekers and practitioners of Astrology. Sage Parashara is said to have lived around 3100 years (BC), he is said to have been born in Panhala Fort, in Kolhapur District, in Maharastra. A cave in this fort is said to be where Sage Parasara lived.

## Sage Jaimini

Sage Parashara is the father of Vyasa Muni. Vyasamuni's disciple is Sage Jaimini. He developed his own principles of astrology, based on the principles of Parashara. Jaimini, theory is slightly different in principles to that of Parashara. It .containes 936 sutras called Upadesa Sutras. The Sutraas are arranged in four chapters, Karakamsa, Arudha, Upapada and Navamsa. It has several distinct and unique features of its own. Karakamsa chapter covers Longevity, Diseases, Profession, Progeny and Spouse, Arudha Chapter covers Longevity, Nature and cause of death Upapada and navamsa chapters covers pre-natal epoch. The principle of prediction is distinctly different to Sage Parashari principles. It pertains to Kaarakatwa of Grahas, Bhaadhaka Bhaavas, Aspect of Rashi over other Rashi, The dasha Bhukti system, considering Bhaava and Raashi as same..(So, the erection of Bhaava chart does not go with Jaimini.) Where ever it deviates it is not found to be in conflict with the Parashari ideals.

## Tajika

Tajika, also called annual horoscope, is a system propounded by Kesava and Neelakantha, in the year 1587 It is a branch of astrology which is concerned with prediction for any desired YEAR, in one's life. The varshaphal is read in combination
with the birth chart to assess the future for the desired year. .
The longitude of sun at the time of birth is the basic data for Tajika, For the year needing prediction, the day and time of Sun attaining the same longitude as was at the time of birth is found and a horoscope for that time is cast based on Chitrapaksha Ayanamsa.. The horoscope thus cast is holds valid for the year prediction is desired for. Then, on the annual horoscope Muntha is located for that year. and prediction is made for the year. . Apart from the lagna of this annual horoscope a new point called Muntha.is marked on the annual horoscope. The Muntha is a sensitive point from Lagna, very important for prediction purposes. On the day of birth, Lagna and Muntha points merge at the same points. For every year of completion, the Muntha point moves forward by one Rashi (30Degrees). (Thus, this Muntha point in the annual horoscope indicates the year for which the prediction is sought).

If Muntha in the annual horoscope is located at 9th, the 10th or the 11th house from lagna of the annual horoscope, very good results are to be predicted. Favourable results are to be predicted if it is at $1,2,3$ or the $5^{\text {th }}$, while, it is bad when Muntha is located at ,4,6,7,8,or 12 . Mutha aspected by malefic plantes or conjoined with, particularly Ketu spells very bad results. The Muntha-lord is the lord of the sign occupied by Muntha, if posited in the 4th, the 6th, the 7th, the 8th or the 12th.from lagna of the annual horosope it gives bad results

Like the sensitive point Muntha, the Tajika system expounds nearly fifty special sensitive points called Sahams, This apart Tajika system has its own set of sixteen yogas . These yogas are to be read in combination of the Dasha system of Varshaphal / Tajika system. The Dash system is the same as that of Vimshottari but proportionately reduced to suit 1year of life.(360days). .

Tajika is also called Varshaphal. Tajika Neelakanthi is a treatise on the predictive part of Hindu astrology. On the basis of many earlier works of Samar Singh and others. Neelakantha, son of Ananta Deva completed this work. Neelakantha also wrote Prasna Tantra, a treatise on Horary astrology based on the Tajika Sastra..
one of the three Dashas, the Mudda, the Yogini or the Patyayini, are applied to assess the time of any event. this system whose results along with that of the dashas are to be read with those assigned to the.

Note by Ramu: The certificate course aspects the student to learn about the basics of astrology such as learning the origin, the 7 planets, astronomical data, learn casting prediction of horoscope, and not in the beginning of learning.
2. The Qualification and qualities of an Astrologer - Characteristics, Responsiblities \& Duties of Counsellor / Consultant/Astrologer
An astrologer should have complete knowledge about astrology. He shall have full knowledge of Panchasiddanta ('PANCHASIDDAANTA KOVIDAHA:- Soorya -Brahma-Vasistha-Lomasha-Paulasha Siddhaantas ), Shall have through knowledge of "Ganita Shastra', as applicable to astrology. He should lead a simple, honest, pious, orthodoxy and ritualistic life .He should have knowledge of the views of many other Daivajnas and about the dictums of astrology. He shall have a very high degree of ability to assess the needs of the querier. Astrologer has to be a learned in Mantras and have the knowledge of propitiation of the Gods and Grahas. He should be a keen observer. Astrologer shall have the talent of counseling and to sooth the mental agitation of the querier. He shall provide remedies for the problems foreseen. He shall not threaten the querier with dire consequences to be faced for not fulfilling or for not following the directions provided to him as remedies. Astrloger should not mention about time of death, he shall not demand remuneration from the querier but, accept whatever is given by the querier, for the services availed by him..

## Part B- Chronology of Astrology And Karma theory

## 1. Chronology of Astrology

## a. Vedic period

Vedic period has no known beginning of time. It .is said in Vedas that Maha Vishnu taught Veda to Brahma the God of four faces. God Brahma is said to be chanting, always, the four Vedas; Rig-Yajur-Sama-Atharva through each of his four faces. Jyothisha (Astrology) being one of the branches of Veda, it was existing then. It is also said in Veda that, one of the Manasaputra of Brahma is sage Vasistha who was taught Jyotisha by God Brahma. Lagadha Muni who is said to have lived during Krutiyuga (SatyaYuga) had the knowledge of Jyotisha. It may be assumed that the application of Jyotisha then was limited to prognostic purposes and not for the purposes as it is existing now.
b. Puranic period

During Puranic period it is probable that knowledge of Jyotisha was being used for determining the time of ritualistic events such as Aswamedha Yaaga, Putra Kaamesthiyaaga, Raajasooya Yaaga, Devayajna, Pitruyajna, and other yaagas .and yajnas. It is evident from the great epics Ramayana -Mahabhaarata- Sreemad Bhaagavata- and many more puranic epics that Jyothisha was applied to determine the Muhurtha for several events such as for Marriage, Crowning ceremony, for beginning warfare, and happy events such as upanayanam, and other shodasha Samskaaraas.

## c. Parasara period

Parasara Period is assessed to be about 3100BC. When Parashari was a child he lost his father Shakti Muni and was brought up by his grandfather Vasitha Muni and learnt Jyotisha from him. Sage Parashara while on travel happen to meet Satyavati (Matsagandhi), who sailed him to cross the river, fathered a child through her, who later was known as Sage Vyasa, who wrote Mahabhaarata.

It is clear that the period of Parasara was intense with the knowledge of Jyotisha, for, it is said that Parashara had many disciples to learn the knowledge and that it is assumed that the principles of Parashara, in the textual form, was brought out by his disciples. There is no mention about any contemporary in the field of astrology.during that time.

## d. Aryabhatta period

Aryabhata is said to have been born in 476 CE, in 'Asmaka' country located in the region between the Narmada and Godavari rivers in central India. . He went to Kusumapura, later called Pataliputra, the modern Patna, for advanced studies and lived there for some time. There, he was positioned as head of an institution, as Kulapa at Kusumapura, university. It is speculated that Aryabhata might have been the head of the Nalanda university also, being a great mathematician-astronomers.

When he was 23 years, (at 499 CE), he composed Aryabhatiya and the Aryasiddhanta Aryabhatiya covers arithmetic, algebra, plane trigonometry, and spherical trigonometry. It also contains continued fractions, quadratic equations, sums-of-power series, and a table of sines and several treatises on mathematics and astronomy.

Knowledge of zero was implicit in Aryabhata's place-value system as a place holder for the powers of ten with null coefficients
,He used letters of the alphabet to denote numbers, expressing quantities, such as the table of sines in a mnemonic form

Aryabhata worked on the approximation for pi $(\pi)$, and may have come to the conclusion that $\pi$ is irrational

Aryabhatiya a compendium of mathematics and astronomy, was extensively referred to in the Indian mathematical literature and has survived to modern times.

There are 108 verses and 13 introductory verses, and is divided into four pādas or chapters: in the text Aryabhatiya

1. Gitikapada: (13 verses): large units of time-kalpa, manvantra, and yuga-which present a cosmology different from earlier texts such as Lagadha's Vedanga Jyotisha (c. 1st century BCE). There is also a table of sines (iya), given in a single verse. The duration of the planetary revolutions during a mahayuga is given as 4.32 million years.
2. Ganitapada (33 verses): covering mensuration (kṣetra vyāvahāra), arithmetic and geometric progressions, gnomon / shadows (shanku-chhAyA), simple, quadratic, simultaneous, and indeterminate equations
3. Kalakriyapada ( 25 verses): different units of time and a method for determining the positions of planets for a given day, calculations concerning the intercalary month (adhikamAsa), kShaya-tithis, and a seven-day week with names for the days of week.
4. Golapada (50 verses): Geometric / trigonometric aspects of the celestial sphere, features of the ecliptic, celestial equator, node, shape of the earth, cause of day and night, rising of zodiacal signs on horizon, etc. In addition, some versions cite a few colophons (means certain details about the publications such as address of the printer, name of the author etc) added at the end, extolling the virtues of the work, etc.

Knowledge of zero was implicit in Aryabhata's place-value system as a place holder for the powers of ten with null coefficients
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Arya-siddhanta, is a lost work on astronomical computations. Arya-siddhanta appears to be based on the older Surya Siddhanta and uses the midnight-day reckoning, as opposed to sunrise in Aryabhatiya Aryabhata's system of astronomy was called the audAyaka system, in which days are reckoned from uday, dawn at lanka or "equator". Some of his later writings on astronomy, which apparently proposed a
second model (or ardha-rAtrikA, midnight) are lost but can be partly reconstructed from the discussion in Brahmagupta's khanDakhAdyaka. In some texts, he seems to ascribe the apparent motions of the heavens to the Earth's rotation. He may have believed that the planet's orbits as elliptical rather than circular

Aryabhata correctly insisted that the earth rotates about its axis daily, and that the apparent movement of the stars is a relative motion caused by the rotation of the earth,

Aryabhata described a geocentric model of the solar system, in which the Sun and Moon are each carried by epicycles. They in turn revolve around the Earth. In this model, which is also found in the Paitāmahasiddhānta (c. CE 425), the motions of the planets are each governed by two epicycles, a smaller manda (slow) and a larger śīghra (fast). The order of the planets in terms of distance from earth is taken as: the Moon, Mercury, Venus, the Sun, Mars, Jupiter, Saturn, and the asterisms.

## e. Modern period

Astrology in the medieval period was probably applied to a limited extent, as the scientific era had not yet set in. 'Modern Period', supposed to be after $16^{\text {th }}$ century, surged forward with a scientific, logical, analytical approach for finding newer ways to life through industrializing and improving existing practices in agricultural, animal husbandry, fisheries, artisan profession, trade, medicine, education etc.. This led to application of logics of astrology to newer vistas. The need to provide satisfactory assessment for the challenges advanced through scientific approaches, such as artificial insemination, forming, poultries, fisheries, cesarean births, etc did bring a new focus in the application of the principles of astrology. Particularly, as regards to the education of the past, it split into finer branches to have an in-depth study and specialization. The quest to learn from the astrologer, about the course of education to choose from among many, grew in number. The principles of astrology had to be fine tuned for the modern needs and therefore newer ways of application of the principles had to be defined in greater detail. Famous astrologers of the modern period came to explain these through publishing their views under titles such as Professional astrology, Medical astrology, Agriculture Astrology, etc. Many modern astrologers did support in this regard. To name a few well known astrologers among many hundreds of astrologers of the modern times are Bhasin, S.N, Basavaiah Shastry, Dr.Gowri Shankar Kapoor, Joglekar, N.K, Kabyadi Srinivasa charya, Kelkar,M.N., Dr. Krishna Kumar S., Dr.Raman.B.V, Rao, K.N. Shastry, P.S, Sheshadri Iyer, Sripathi, Sumeet Chugh, Dr..Vasn,T.S, Venkatesha, and many more.

## Karma Theory

Hidu Astrology, also known as VEDIC ASTROLOGY is based on Karma Theory. Karma or the deeds that have been performed in the past JANMA (Principle of reincarnation) by the native brings about a good or bad life in the present, which can be read from the horoscope. The Karma is distinguished in three variance. 1)Past Deeds (Sancita Karma), 2) Present deeds (Prarabdha Karma) and 3) Future Deeds (Aagaami karma). It is said that if the Karma performed in the past are good the present life is bound to be good. So also the converse is true. Similar is the principle of Karma theory for the future birth. In sum and substance good deeds results in good rebirth or janma, ( the fore going explanations are not for the student appearing for the exam as the explanations given are not acceptable as an answer. My own views differ very much with this theory of Karma. For, no one is able to establish or prove as to what deeds were done by the native to have the kind of life, presently. The theory is a very smooth and easy way for an astrologer to escape, pointing to the past karma, when his prediction fail. The happening in the future birth could be predicted safely as the astrologer predictions cannot be contested./ verifiable.

## Paper - II Sayana and Nirayana Method \& Astrology relevant to Astronomy 100 Marks ( 75 Theory + 25 Home Assignment)

## Part A- Fixed Zodiac movable Zodiac, Progressed Sayana, Sayana aspect, square trion, nirayana aspects - all planet aspects and special aspects for Jupiter, Saturn and Mars

## Fixed Zodiac and Movable Zodiac

The Zodiac does not move. It is fixed. Because the earth, inclined at about 23.4 degrees to sun and orbit around Sun, induce an effect of relative motion in the zodiac. So, the word 'Moving Zodiac' is in vogue.

## Progressed Sayana

As the earth orbits, while rotating on its own axis, a third dimension rotation, called oscillation / wobbling also occurs. The effect of this oscillation / wobbling is that, the plane of equator tilts by about 50.3 arc seconds in a year, progressively westward. Otherwise, it means that, the relative movement of the Zodiac appears to be moving westwards. In turn, the equator of the earth which was in alignment with Mesha, once-
up-on-a-time, (I.E. 285 CE) appears to be shifting back word that is, towards Meena, progressively, with reference to a date. After some years, the earth tilts further some more degrees and later the process reverses. That is, many years later the equator aligns with Mesha rashi, as was earlier (In AD 285). It continues to tilt further towards Vrushabha for some years at the same rate and reverses process takes place to reach Mesha again. Thus, one complete cycle of the oscillation/ wobbling takes place in 28,000 years.. This is also called PRESESSION OF EQUINOXES

Western astrologers recon the alignment of equator with Raashi (sign) and measure the longitude of the planets, with reference to the point of rashi, the equator is aligned with. Since the alignment of equator shifts, the Zodiac appears to be moving, and, the longitudinal position of plants are measured every time (year) with a new alignment position. This is called the Progressive / Moving Zodiac. .

## Sayana aspect, square trion ,

The Western Astrology propounds, aspect rule for planets which is different to Vedic Astrology The aspects are sometimes called Ptolemaic aspects since they were defined and used by Ptolemy in the 1st Century, AD. These aspects are

1) The conjunction (approx. $\left.0-10^{\circ}\right)$; 2) sextile $\left(60^{\circ}\right)$;; 3) square $\left(90^{\circ}\right) ;$ 4) trine $\left(120^{\circ}\right)$;,
2) opposition $\left(180^{\circ}\right)$;. 6) Semi Sextile $\left(30^{\circ}\right)$; 7) Semi Square $\left(45^{\circ}\right)$; 8) Quintile $\left(72^{\circ}\right)$;
3) Quincunic $\left(150^{\circ}\right)$; 10) $1^{\text {st }}$ Nonile $\left(40^{\circ}\right)$; 11) $2^{\text {nd }}$ Nonile $\left(80^{\circ}\right)$; 12) $4^{\text {th }}$ Nonile $\left(160^{\circ}\right)$

## Fixed Zodiac,

In Vedic Astrology it is always construed that Zodiac is fixed. The oscillation / wobbling of Earth is a condition which is cyclic in nature, to repeat once in 28,000 years. The change in the wobbling measure is about 50.3 arc seconds gives raise to variance of Ayanaamsha, (the name given for the measure of tilt / wobbling). The value of this shift is separately notified as 'AYANAAMSHA' for every year, progressively. So, the longitude of planets are always reckoned from Mesha, in Vedic Astrology. This procedure of measuring longitude of planets always from 'MESHA' is called Fixed Zodiac, because Zodiac is fixed and from this fixed reference point, position of planets are always reckoned with..

To convert the longitude of planets to western value, the value of Ayanaamsha of Vedic astrology has to be added and the reverse process helps in converting the western values to Vedic Astrology Value.

## Saturn and Mars

In Nirayana system all the 7 planets cast Full-aspect on $7^{\text {th }}$, ( $180^{\circ}$ aspect). Apart from this general aspect, there are special Full-aspects of Mars, Jupiter and Saturn. . Fullaspects of Mars $=4^{\text {th }}$ aspect ( $=90^{\circ}$ aspect) and $8^{\text {th }}$ aspect $\left(=210^{\circ}\right.$ aspect); Full-aspect of Jupiter $=5^{\text {th }}$ aspect $\left(=120^{\circ}\right.$ aspect) and $9^{\text {th }}$ aspect ( $=240^{\circ}$ aspect) ; Full-aspect of Saturn $=3^{\text {rd }}$ aspect $\left(=60^{\circ}\right.$ aspect) and $10^{\text {th }}$ aspect $\left(=270^{\circ}\right.$ aspect). Other than the three planets having full aspect, as detailed, rest of the planets have also have some aspect on various other points. No aspect is cast by any planet upto 30 degrees forward from its point of location or backward upto the point of 60 degrees. Every planet cast its aspect forward to its position on the following points $60 \mathrm{Deg}=25 \%, 90 \mathrm{Deg}=50 \%$, $120 \mathrm{Deg}=37.5 \%$, 150Deg=0\%, 180Deg=100\%, 300Deg = 0\%. For in-between positions the value is derived pro-rata basis.

## Part B-1. Astronomy relevant to Astrology:

Astronomy is the base of Astrology, Concept \& Definition of Astronomy, Introduction to Astronomy and modern trends in Astronomy; Birth of Universe (Big Band Theory);Galaxies, Milky Way, Stars (Constellations);Astronomical Definitions; Historical Development of Astronomy in India and West and its differences; Earth, Sky and Solar Systems; Time Concept; Retrograde Movement of Planets; Eclipses

## Astronomy is the base of Astrology:-

The knowledge of astrology has stemmed from the knowledge of astronomy, confined to the ever-moving planets in the space, in the solar system, whose path is clearly defined. The knowledge about 27 constellations, from among many trillions of stars which lie in the path of the moving planets, are clear. The knowledge about fundamentals of sustenance of everything on-and-in the earth, energized by cosmic energy, is well known. Any change in the quality of this cosmic energy affecting the earth (in and on the earth) has been observed, particularly whenever eclipse occurred. Such a kind of eclipse, occurring to any constellation among the 27, caused by the movement of planets, is clearly known to cause disturbance to the quality of cosmic energy which reach the Earth, The main source of energy for life is cosmic energy. Disturbance to this energy causes disturbance to life, or if no energy reaches the earth, no life exists on earth. Astronomy is related to the bodies in the cosmos and its study,
including studying its energy such as gravitational force, electromagnetic energy etc.. Without the knowledge of astronomy knowledge of astrology become useless, and cannot sustain.

## Concept \& Definition of Astronomy

Concept :- The solar system is not the only one system in the universe. There are many trillions of such systems and its existence must have a purpose is the concept of Astronomy.

Definition of Astronomy:- The scientific study of the universe, especially of the motions, positions, sizes, composition, the physics, chemistry, evolution and behavior of astronomical objects such as stars, galaxies, planets, moons, and nebulae. These objects are studied and interpreted, from the radiation they emit, from the supernovae explosions, gamma ray bursts, and cosmic microwave background radiation of such objects. that originate outside the atmosphere of Earth.

## Modern trends in Astronomy;

The age of meditating to learn about the astronomy is bygone with the sages. . The trend to fly to the planets has been since 1957, when the soviet Union sent the first satellite 'Sputnik', to space, and since then the number of space missions have exceeded by HUNDREDS to collect the data of various space bodies from the site of landing and outside of landed site. Many of the findings of the modern space technology have been falling in line with what Astrology says about planets. Astrology says Mars is a watery planet (Vrischika is watery sign) Mars Mission has revealed that water is found on Mars. Vrishika raashi is described as 'Randhra Raashi' and 'Gupta Raashi' 'Red in Colour' mars mission reveals that there are six deep holes, called 'Sister Holes' in Mars, each is about 1.5 KM diameter and the depth of which is not measurable as it is very deep, and the planet is red in colour. Astrology says Moon is a watery sign. Yes says Moon- Mission- results. Astrology says Venus is sour. The mission to Venus reveal that the atmosphere of venus is made of sulpur-di-oxide. Astrology says that Saturn is an airy planet. .Space mission to Saturrn reveal the atmosphere of Saturn is methane gas..

It is science revelation that gains the value, while the sayings of Sages do not merit any importance.. It is a good trend set in space mission to explore the data of each of the planet and the data so collected can be used to verify astrological dictums.

Regarding the orbital-time of planets it is gratifying to note is that, the difference is
miniscule between the astronomical data propounded by Rishis with that of the data compiled through modern equipment. It is equally admirable that man (Neil Armstrong) made the greatest leap to land on Moon on July 29,1969 with the advancement of modern space technology.

Astronomy is now popularly known as SPACE SCIENCE. It is heartening to note that our country is one of the explorers of Space Science and Technology, recognized as one of the largest Government Space Science establishments, under. Department of Space, Government of India, Established in 1969.

The first satellite, Aryabhata, was launched on 19 April in 1975
Rohini satellite was placed in orbit by an Indian-made launch vehicle, in 1980.
the Polar Satellite Launch Vehicle (PSLV) for launching satellites into polar orbits and the Geosynchronous Satellite Launch Vehicle (GSLV) for placing satellites into geostationary orbits. These rockets have launched numerous communications satellites and earth observation satellite

Chandrayaan-1, India sent its first mission to the Moon on 22 October in 2008.
ISRO launched its Mars Orbiter Mission on 5 Nov 2013, currently en route to Mars.
ISRO aunched five foreign satellites by the PSLV in June 2014.

## Birth of Universe (Big Band Theory);

The 1929 discovery by Edwin Hubble that the Universe is in fact expanding at enormous speed was revolutionary. Hubble noted that galaxies outside our own Milky Way were all moving away from us, each at a speed proportional to its distance from us. He quickly realized what this meant that there must have been an instant in time (now known to be about 14 billion years ago) when the entire Universe was contained in a single point in space. The Universe must have been born in this single violent event which came to be known as the "Big Bang."

## Galaxies,

Our Solar system is located in one of the four spirals of the 4 Spiral- Galaxy, at a distance of about 24,000 Light years away from the center of the Galaxy. The galaxy is of the size 100,000 light-years in dia and 10,000 light-years in thickness.
( Extra Information:- A galaxy is a massive, gravitationally bound system consisting of stars, stellar remnants, an interstellar medium of gas and dust, and dark matter, an important but poorly understood component. The word galaxy is derived from
the Greek galaxias (yana乡ías), literally "milky", a reference to the Milky Way. Examples of galaxies range from dwarfs with as few as ten million $\left(10^{7}\right)$ stars to giants with one hundred trillion $\left(10^{14}\right)$ stars, each orbiting their galaxy's own center of mass.

Galaxies contain varying numbers of planets, star systems, star cluster sand types of interstellar clouds. In between these objects is a sparse interstellar medium of gas, dust, and cosmic rays. Super-massive black holes reside at the center of most galaxies. They are thought to be the primary driver of active galactic nuclei found at the core of some galaxies. The Milky Way galaxy is known to harbor at least one such object.

There are probably more than 170 billion galaxies in the observable universe. Most are 1,000 to 100,000 parsecs in diameter and usually separated by distances on the order of millions of parsecs (or megaparsecs). Intergalactic space (the space between galaxies) is filled with a tenuous gas of an average density less than one atom per cubic meter)

## Milky Way:-

The Milky Way is a gravitationally bound collection of roughly a hundred billion stars. Our Sun is one of these stars and is located at about 27,000 light years (or 8000 parsecs) from the center of our the Milky Way

The Milky Way is a barred spiral galaxy some 100,000-120,000 light-years in diameter, which contains 100-400 billion stars. It may contain at least as many planets as well. The Solar System is located within the disk, about 27,000 light-years away from the Galactic Center, on the inner edge of one of the spiral-shaped concentrations of gas and dust called the Orion Arm. The stars in the inner $\approx 10,000$ light-years form abulge and one or more bars that radiate from the bulge. The very center is marked by an intense radio source, named Sagittarius $A^{*}$, which is likely to be a supermassive black hole.

Stars and gases at a wide range of distances from the Galactic Center orbit at approximately 220 kilometers per second. The constant rotation speed contradicts the laws of Keplerian dynamics and suggests that much of the mass of the Milky Way does not emit or absorb electromagnetic radiation. This mass has been given the name "dark matter". The rotational period is about 240 million years at the position of the Sun. The Milky Way as a whole is moving at a velocity of approximately 600 km per second with respect to extragalactic frames of reference. The oldest known star in the Milky Way is at least 13.82 billion years old and thus must have formed shortly after the Big Bang.

Surrounded by several smaller satellite galaxies, the Milky Way is part of the Local Group of galaxies, which forms a subcomponent of the Virgo Supercluster, which again forms a subcomponent of the Laniakeasupercluster.

Reference http://en.wikipedia.org/wiki/Milky_Way

## Stars (Constellations);

Constellation is a group of stars identified by the name of one of the prominent stars within it. In astrology, Star and Constellation are synonyms. The stars / Constellation are visible from Earth, that forms a distinctive pattern and has a name linked to its shape. They are Aswini-Bharani-Kritika-Rohini-Mrugashira-Aarufdra-Punarvasu-Pushyami-Aslesha-Mukha-Pubba-Uttara-Hastha-Chitta-Swaati-Vishaakha-Anooraadha-Jyestha-Moola-Poorvaashaada-Uttaraashaada-Sravana-Dhanistha-Shatabhisha-Porvaabhaadra-Uttaraabhaadra-and, Revati. These are the 27 Stars / Constellations considered in astrology.

## Astronomical Definitions;

Definition of astronomy: Astronomy is the study of the sun, moon, stars, planets, comets, gas, galaxies, gas-dust and other non-Earthly bodies and phenomena. NASA defines astronomy as "the study of stars, planets and space." Astronomy and astrology were historically associated, but astrology is not a science and is no longer recognized as having anything to do with astronomy.

## Historical Development of Astronomy in India and West and its differences;

Historically, astronomy has focused on observations of heavenly bodies. It is a close cousin to astrophysics. Succinctly put, astrophysics involves the study of the physics of astronomy and concentrates on the behavior, properties, and motion of objects out there. However, modern astronomy includes many elements of the motions and characteristics of these bodies, and the two terms are often used interchangeably today. The study of astronomy by west can be traced back to a few hundreds of years,

The exploration of planets has been since 1957, when the Soviet Union sent the first satellite Sputnik to space and, since then the number of space missions have exceeded by HUNDREDS to collect the data of various space bodies from the site of landing and outside of landed site. Curious and Astounding data and pictures collected of the site
has substantiated many hypothesis to be true and has added impetus to explore more. Astronomy in India has been considered as an important knowledge since time immemorial, based on which Astrology was propounded. But the study of astronomy was confined to Sages of the yore. Due to technology of printing was unknown in those days, reproduction of hard copy of the knowledge was not possible. However, the knowledge disseminated through memorizing the hymns composed of information about the findings of Rishis, and that was the only method by which the knowledge could remain as in original, without any change in its verse. The progressive generation could therefore be able to learn what was taught by Sages, without any distortion to the basic knowledge, and it is being taught / practiced even now, as was found to be then.

Astronomy is now popularly known as SPACE SCIENCE. It is heartening to note that our country is one of the explorers of Space Science and Technology, recognized as one of the largest Government Space Science establishments, under. Department of Space, Government of India, Established in 1969.

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ISRO launched its Mars Orbiter Mission on 5 Nov 2013, currently en route to Mars.
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## Earth, and Solar Systems;

Solar System
Solar System consists of the Sun, and its orbiting planets (including Earth), along with numerous moons, asteroids, comet material, rocks, and dust. Our Sun is just one star among the hundreds of billions of stars in our Milky Way Galaxy.

## Earth

In Astrology Earth is hypothetically assumed to be stationery and that all the planets
revolve around it. The position / longitude of planets are measured from the point of Aris as Zero,
(Extra Lesson:-- Earth is the fifth-largest planet in the solar system .Scientists believe Earth and its Moon formed around about 4.5 billion years ago.. Its diameter is about 8,000 miles. And Earth is the third-closest planet to the sun. Its average distance from the sun is about 93 million miles. Only Mercury and Venus are closer. Earth is the only planet known to have large amounts of liquid water. Liquid water is essential for life. Earth is the only planet where life is known to exist)

## Sky

The sky (or celestial dome) is everything that lies a certain distance above the surface of the Earth, including the atmosphere and outer space. In the field of astronomy, the sky is also called the celestial sphere. This is an imaginary dome where the sun, stars, planets, and the moon are seen to be traveling. The celestial sphere is conventionally divided into regions called constellations. Usually, the term sky is used from the point of view of the Earth's surface; however, the exact meaning of the term can vary.

## Time Concept

In India the concept of time is a measure counted from the time of sunrise to the next sun rise, called as a day. This as the basis, Sages have defined the time of birth of this universe as equal to 2 (for day + Night measured separately) X 365.25 days (= one earth year) $\mathrm{X} 43,20,000$ ( Sum of Chaturyugas = one mahayuga) $\times 1000$ (mahayugas) $=$ KALPA $=$ One brahma Day consisting of one day and one night $X 365$ days $X 100$ (years of life of Brahma = life of universe). The whole period is broken in to smaller units of time called 1) KALPA ( 14 X of 2) 2) MANVANTARA / MANU (=311.04 trillion years 71 X of 3) 3) MAHA YUGA, (43,20,000X of 4) 4) VARSHA (2X of 5), 5) AAYANA, (3X of 6) 6) RUTU (2X of 7), 7) MAASA (2X Of 8), 8) PAKSHA (15X of 9), 9) VAARA (7X of 10), 10) DINA (24X Of 11), 11) HORA (2 $1 / 2 \mathrm{X}$ OF 12), 12) MUHURTHA (2X OF 13) 13) GHATI / DANDA,15X OF 14) 14) LAGHU,(15x OF15) 15) KAASTHA, (5X OF 16) 16) KAHANA, (3X OF 17) 17) NIMESHA,(3X OF 18) 18) LAVA, (3X OF 19) 19) VEDHA,(100 X OF 20) 20) TRUTI, (3X OF 21) 21) TRASARENU (3 X OF 22), 22) ANU, (2X OF 23) 23) PARAMAANU = 26. 3 Micro Seconds of Modern Time Measurement.

## Retrograde Movement of Planets;

There is no revere movement of planets. Planets do keep moving in one direction only.

It is an apparent motion of planet. Whenever a fast moving planet happen to pass by the same longitude of a slow moving planet, it appears as though the slow moving planet is going in a reverse direction in comparison with the fast moving planet Among the 7planets considered in Astrology Ravi and Chandra have no retrograde motion.

## Eclipses

Eclipses are two kinds. 1) When the moon happen to transit between the Sun and Earth, the people on earth cannot see the part of the sun. Otherwise it is said that the shadow of the moon fall on the earth. This is called solar eclipse. This happens on new Moon day only. 2) When Earth Transit between the Sun and the Moon the earth prevents the sunrays falling on the moon,. It is otherwise said that the Shadow of the earth falls on the Moon. This event is called Lunar Eclipse. This happens on a Full Moon day only. These two events happen, individually, whenever the transit of Sun and the Moon happen to transit over Rahu and Ketu location, either in conjunction or in opposition to each other.

## Paper-III : Panchanga and Casting of Horoscope 100 Marks (75 Theory + 25 Home Assignment)

Part A - Panchanga System I : Definition of Panchanga, uses of Panchanga, Reading of Panchanga

Five elements of panchanga- Thithi, Vara, Nakshatra,Yoga and Karana, and its importance.

## : Definition of Panchanga

Panchanga means 5 different astronomical calculations. It, is a periodical publication of Indian calendar (generally once in a year), which notifies 5 different astronomical calculations considered for each day of the year (Tithi-Vaara-Nakshatra-Yoga-Karna). and the position of 7 planets and 2 nodal planets, at the time of sunrise for a place. Panchanga is the Sanskrit word equivalent to ephemeris it also includes various astronomical events of planets, such as time of combust-retrogression-shreegrochaplanets setting and raising time, occurrence of eclipses, and provides information about date of Hindu festivals. The panchanga is composed based on one of the Siddhantas (Surya or Pitamaha (Brahma) or Aryabhateeya or Vasistha or Lomasha-or Paulasha or Vaakya or generally based on one of the sidddantas. It also includes notifying variances as per other sidddantas)

Uses of Panchaaga. Panchanga has become a reference book for everyday needs. Panchanga publicizes the particulars of Sunrise-sunset times, Tithi-Vaara-Nakshatra-Yoga-Karna-vishaghati-Amrutaghati-shoonyatithi- time of ingress of planets into new position-which are astrologically very important information.
(Extra Notes:- Hindus culture incorporates various rituals / festivals / sacred days, such as AEkadashi-Amavasysya- eclipseday- adhyayana- andhyayana- Tarpana DinaPradosha Dina- Adhika Masa- Kshyamaasa etc, to be observed during the year. These information are published for the information of everyone). .

Reading of panchanga: It involves good knowledge about understanding the symbols / abbreviations / location of desired information / standard methods followed by the publisher of panchaga. Panchanga desigh Generally, for example, 'MALE" (Rain) Nakshatra means the position of Sun in the asterism; Nakshatra means the position of Moon in the asterism,. Generally the movement of planets are indicated by the first letter of the name of the planet, printed on the left border of Panchanga, at the place in line with the tithi of its transit day. The time of closure (the end time of thithi-vaara -nakshatra- Yoga-Karna are indicated against each of them, while the ingress time (time of start) of movement of planets into new location is indicated. Similar indication apply to Amruta / Visha ghati, The start time of various AVASTAS of planets are indicated. Vakri / dagdha / astha / Udaya. Most of the panchangas give time in Ghatis (=24 minutes) which are to be converted to standard time for easy understanding..

## Part B - Panchanga System II

## Casting of Horoscope Casting of horoscope using panchangas (Suttur Shri Shivaratheeshwara Panchanga /Onti Koppal Panchanga /Panchanga by Shri Niranjana Babu etc.). Characteristics sof Rashis \& Planets. Debilitation \& Exaltation in Rashis/placements/aspects. Stira, Chara \& dwiswabhava. Descriptive of Zodiac sign \& its characteristics. c

## Casting of horoscope using panchangas

description Characteristics of Rashis \& Planets. is given as the

Debilitation \& Exaltation in Rashies/placements/Aspects
material is
Stira, Chara \& dwiswabhava.
any
Descriptive of Zodiac sign \& its characteristics. book

Paper IV Dasha \& Dasha Bhukti 100 Marks (75 Theory + 25 Home Assignment)

Part A - Navamsha Calculation, Dasha C alculation, Bhukti \& Anther Bhukti Calculation No description is provided as the material is available in any standard Book on astrology

Part B - Bhava Parichaya/what is Bhava Kundali, why we erect Bhava Kundali chart, what are names of Bhavas, what are the major contents of Bhavas? 2. Kendras \& Trikonas No description is provided as the material is available in any standard Book on astrology

Paper - V: Sanskrit for beginners/Learners,
(a) Sanskrit stories etc., (Reader I \& II) etc., 100 Marks (75 Theory + 25 Home Assignment)

