## Memoranda for Observers.

[Standard Time of India is adopted in these Memoranda.]
For the month of January 1914.
Sidereal time at 8 p.m.

|  |  |  |  |  | H. | M. | S. |
| :---: | :---: | :---: | :---: | :---: | :---: | ---: | ---: |
| January | 1st | $\ldots$ | $\ldots$ | $\ldots$ | 2 | 42 | 29 |
| ", | $8 t h$ | $\ldots$ | $\ldots$ | $\ldots$ | 3 | 10 | 5 |
| ", | $15 t h$ | $\ldots$ | $\ldots$ | $\ldots$ | 3 | 37 | 41 |
| ", | $22 n d$ | $\ldots$ | $\ldots$ | $\ldots$ | 4 | 5 | 17 |
| ", | $29 t h$ | $\ldots$ | $\ldots$ | $\ldots$ | 4 | 32 | 53 |

From this table the constellations visible during the evenings in December can be ascertained by a reference to a star chart, as the above hours of sidereal time represent the hours of Right Ascension on the meridian.

Phases of the Moon.

| January |  |  |  | H. | M. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | First Quarter | . | ... 6 | 39 |
|  | 12th | Full Moon | ... | ... 10 | 39 |
| " | 19th | Last Quarter |  | :.. ${ }^{6}$ | 0 |
|  | 26th | New Moon |  | 12 |  |

Meteors.
Radiant. Character.
R. A. Dec.

January 2nd—3rd ... $230^{\circ}+53^{\circ}$ Brilliant; swift, long paths.


## The Planets.

Mercury-Is a morning star until the 25th when he is in superior conjunction with the Sun, and then becomes an evening star, but too near to the Sun to be visible.

Venus-Is also a morning star, but is: approaching superior conjunction with the Sun which will occur on the 12th February.

Mars-Is an evening star, in opposition to the Sun on the 5th, this phase having last occurred on November 25th, 1911. Another interesting incident will happen on the evening of the 11th when this planet will be occulted by the Moon. His position on the 15 th will be R.A. $6 \cdot 48$. Dec. $27^{\circ}-1^{\prime} \mathrm{N}$. in the constellation of Gemini.

Jupiter-Is an evening star until the 20th when he will be in conjunction with the Sun in Capricornus. His position on the 15 th is R. A. 20.3. Dec. $20^{\circ}-49^{\prime} \mathrm{S}$.

Saturn-Is also an evening star in Taurus. Position on the 15th R. A. $4 \cdot 42$. Dec. $20^{\circ}-36^{\prime}$ N.

Uranus.-Position on the 15th R. A. 20.37. Dec. $19^{\circ}-8^{\prime} \mathrm{S}$. in Capricornus.

Neptune.-Position on the 15th R. A. 7.54. Dec. $20^{\circ}-21^{\prime}$ N. in Cancer.

A very interesting assemblage of the planets will occur within the constellation of Capricornus, in which the same sets with the new Moon on the 26th. The Sun, Moon, Mercury, Venus, Jupiter and Uranus will all be within $8 \frac{1}{4}$ degrees of longitude, and less than two degrees of latitude, which is much less than the space occupied by the four stars forming the quadrilateral of Canis Major.

For the month of February 1914.
Sidereal time at 8 p.m.

|  |  |  |  |  | H. | M. | S. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| February | $1 s t$ | $\ldots$ | $\ldots$ | $\ldots$ | 4 | 44 | 42 |
| ", | $8 t h$ | $\ldots$ | $\ldots$ | $\ldots$ | 5 | 12 | 18 |
| $"$ | $15 t h$ | $\ldots$ | $\ldots$ | $\ldots$ | 5 | 39 | 54 |
| ", | $22 n d$ | $\ldots$ | $\ldots$ | $\ldots$ | 6 | 7 | 30 |
| $"$ | $28 t h$ | $\ldots$ | $\ldots$ | $\ldots$ | 6 | 30 | 59 |

From this table the constellations visible during the evenings in February can be ascertained by a reference to a Star Chart, as the above hours of sidereal time represent the hours of Right Ascension on the meridian.

## Phases of the Moon.



## Meteors.

Radiant,
R. A. Dec.

February 7th—23rd $\quad . . \quad 75^{\circ}+41^{\circ}$ Slow; bright.
,, 15 th $-20 t h \quad . . .236^{\circ}+11^{\circ}$ Swift; streaks.
," 19th-28th ... $155^{\circ}+14^{\circ}$ Slow.
", 19 th— $26 t h \quad . . \quad 58^{\circ}+72^{\circ}$

## The Planets.

Mercury-Is an evening star throughout the month and will be visible about the middle of the month when he sets about an hour after the Sun. He will be at greatest elongation, 18 degrees East, on the 22nd.

Venus--Is in superior conjunction with the Sun on the 12th, and then becomes an evening star, but too near to the Sun to be visible at any time this month.

Mars-Will be found in the constellation of Gemini. Position on 15th R. A. $6 \cdot 25$. Dec. $26^{\circ} \cdot 52^{\prime} \mathrm{N}$.

Jupiter-Rises in Capricornus about half an hour before the Sun at the beginning, and about two hours before the Sun at the end of the month. Position on 15 th R.A. $20 \cdot 33$. Dec. $19^{\circ}-14^{\prime} \mathrm{S}$.

Saturn-Remains in Taurus. Position on 15th R. A. 4.39. Dec. $20^{\circ}-38^{\prime} \mathrm{N}$.

Uranus in Capricornus. Position on 15th R. A. 20.45. Dec. $18^{\circ}-40^{\prime} \mathrm{S}$.

Neptune in Cancer. Position on 15th R. A. 7.52, Dec. $20^{\circ}-31^{\prime} \mathrm{N}$.

## Notices of the Society.

## Election of Members.

The attention of members is invited to Bye-Law No. 14, regulating the election of persons who desire to join the Society. It is hoped that those who are already members will induce others to join. Forms of application can be had from the Secretary.

