

# Astrodienst Ephemeris Tables for the year 2023

tropical geocentric zodiac

contains Sun, Moon, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto, True Node, Moon's Node, Lilith, Chiron

Programming
Dieter Koch and Alois Treindl
based on Swiss Ephemeris
Code D5EPX

JANUARY 2023 00:00 UT

| •    |         |          |                |                |                 |                |               |       |                |                |                |               |               |               | ••••           |      |
|------|---------|----------|----------------|----------------|-----------------|----------------|---------------|-------|----------------|----------------|----------------|---------------|---------------|---------------|----------------|------|
| Day  | Sid.t   | 0        | D              | ğ              | φ               | ď              | 4             | ħ     | )ұ(            | 并              | Р              | S.            | v             | Ç             | ķ              | Day  |
| S 1  | 6 41 33 | 10る17'02 | 3 <b>8</b> 39  | 23°R42         | 27 <b>る</b> 23  | 9°R 4          | 1 <b>Υ</b> 12 | 22≈25 | 15°R 9         | 22 <b>)</b> 52 | 27 <b>云</b> 39 | 11845         | 10812         | 2999 9        | 11 <b>Y</b> 58 | S 1  |
| M 2  | 6 45 30 | 11°18'10 | 16°14          | 23궁 6          | 28°38           | 8 <b>II</b> 55 | 1°19          | 22°31 | 15 <b>8</b> 8  | 22°53          | 27°41          | 11°R45        | 10° 9         | 29°16         | 11°59          | M 2  |
| T 3  | 6 49 26 | 12°19'19 | 28°36          | 22°18          | 29°53           | 8°46           | 1°26          | 22°37 | 15° 7          | 22°54          | 27°43          | 11°44         | 10° 6         | 29°23         | 11°59          | T 3  |
| W 4  | 6 53 23 | 13°20'27 | 10 <b>Ⅱ</b> 48 | 21°20          | 1≈ 8            | 8°39           | 1°34          | 22°43 | 15° 6          | 22°55          | 27°45          | 11°40         | 10° 3         | 29°29         | 12° 0          | W 4  |
| T 5  | 6 57 20 | 14°21'35 | 22°53          | 20°13          | 2°23            | 8°32           | 1°42          | 22°49 | 15° 5          | 22°56          | 27°47          | 11°33         | 10° 0         | 29°36         | 12° 0          | T 5  |
| F 6  | 7 1 16  | 15°22'43 | 4952           | 18°59          | 3°39            | 8°26           | 1°50          | 22°56 | 15° 4          | 22°57          | 27°49          | 11°23         | 9°56          | 29°43         | 12° 1          | F 6  |
| S 7  | 7 5 13  | 16°23'51 | 16°47          | 17°40          | 4°54            | 8°21           | 1°58          | 23° 2 | 15° 3          | 22°59          | 27°51          | 11°11         | 9°53          | 29°49         | 12° 2          | S 7  |
| S 8  | 7 9 9   | 17°24'59 | 28°41          | 16°20          | 6° 9            | 8°17           | 2° 6          | 23° 8 | 15° 2          | 23° 0          | 27°53          | 10°58         | 9°50          | 29°56         | 12° 3          | S 8  |
| M 9  | 7 13 6  | 18°26'06 | 10⋒33          | 15° 0          | 7°24            | 8°14           | 2°14          | 23°15 | 15° 2          | 23° 1          | 27°55          | 10°45         | 9°47          | 0 <b>Ω</b> 3  | 12° 4          | M 9  |
| T 10 | 7 17 2  | 19°27'14 | 22°26          | 13°42          | 8°39            | 8°11           | 2°23          | 23°21 | 15° 1          | 23° 2          | 27°57          | 10°32         | 9°44          | 0°10          | 12° 5          | T 10 |
| W11  | 7 20 59 | 20°28'21 | 4 Mp 2 1       | 12°31          | 9°54            | 8° 9           | 2°32          | 23°28 | 15° 0          | 23° 3          | 27°59          | 10°21         | 9°40          | 0°16          | 12° 6          | W11  |
| T 12 | 7 24 55 | 21°29'29 | 16°21          | 11°26          | 11° 9           | 8° 8           | 2°40          | 23°34 | 15° 0          | 23° 5          | 28° 1          | 10°13         | 9°37          | 0°23          | 12° 7          | T 12 |
| F 13 | 7 28 52 | 22°30'36 | 28°30          | 10°30          | 12°24           | 8°D 8          | 2°49          | 23°41 | 14°59          | 23° 6          | 28° 3          | 10° 8         | 9°34          | 0°30          | 12° 8          | F 13 |
| S 14 | 7 32 49 | 23°31'43 | 10 <b>≏</b> 51 | 9°42           | 13°39           | 8° 8           | 2°58          | 23°47 | 14°59          | 23° 7          | 28° 5          | 10° 5         | 9°31          | 0°36          | 12° 9          | S 14 |
| S 15 | 7 36 45 | 24°32'50 | 23°29          | 9° 5           | 14°54           | 8° 9           | 3°8           | 23°54 | 14°58          | 23° 9          | 28° 7          | 10°D 5        | 9°28          | 0°43          | 12°10          | S 15 |
| M16  | 7 40 42 | 25°33'57 | 6M28           | 8°37           | 16° 9           | 8°11           | 3°17          | 24° 0 | 14°58          | 23°10          | 28° 9          | 10°R 5        | 9°25          | 0°50          | 12°11          | M16  |
| T 17 | 7 44 38 | 26°35'03 | 19°53          | 8°19           | 17°24           | 8°14           | 3°26          | 24° 7 | 14°57          | 23°11          | 28°11          | 10° 4         | 9°21          | 0°57          | 12°13          | T 17 |
| W18  | 7 48 35 | 27°36'10 | 3 <b>∡</b> 747 | 8° 9           | 18°39           | 8°18           | 3°36          | 24°14 | 14°57          | 23°13          | 28°12          | 10° 3         | 9°18          | 1° 3          | 12°14          | W18  |
| T 19 | 7 52 31 | 28°37'17 | 18°10          | 8°D 9          | 19°54           | 8°22           | 3°46          | 24°21 | 14°57          | 23°14          | 28°14          | 9°58          | 9°15          | 1°10          | 12°15          | T 19 |
| F 20 | 7 56 28 | 29°38'23 | 3号 0           | 8°17           | 21° 8           | 8°27           | 3°56          | 24°27 | 14°57          | 23°16          | 28°16          | 9°51          | 9°12          | 1°17          | 12°17          | F 20 |
| S 21 | 8 0 24  | 0≈39'29  | 18°11          | 8°32           | 22°23           | 8°32           | 4° 6          | 24°34 | 14°57          | 23°17          | 28°18          | 9°41          | 9° 9          | 1°24          | 12°18          | S 21 |
| S 22 | 8 4 21  | 1°40'34  | 3≈32           | 8°54           | 23°38           | 8°39           | 4°16          | 24°41 | 14°56          | 23°19          | 28°20          | 9°30          | 9° 6          | 1°30          | 12°20          | S 22 |
| M23  | 8 8 18  | 2°41'38  | 18°53          | 9°22           | 24°53           | 8°46           | 4°26          | 24°48 | 14°D56         | 23°21          | 28°22          | 9°18          | 9° 2          | 1°37          | 12°22          | M23  |
| T 24 | 8 12 14 | 3°42'42  | 4 <b>₩</b> 0   | 9°56           | 26° 8           | 8°53           | 4°36          | 24°55 | 14°56          | 23°22          | 28°24          | 9° 8          | 8°59          | 1°44          | 12°23          | T 24 |
| W25  | 8 16 11 | 4°43'44  | 18°46          | 10°35          | 27°23           | 9° 2           | 4°47          | 25° 2 | 14°57          | 23°24          | 28°26          | 8°59          | 8°56          | 1°50          | 12°25          | W25  |
| T 26 | 8 20 7  | 5°44'46  | 3 <b>℃</b> 3   | 11°19          | 28°37           | 9°10           | 4°57          | 25° 9 | 14°57          | 23°25          | 28°28          | 8°54          | 8°53          | 1°57          | 12°27          | T 26 |
| F 27 | 8 24 4  | 6°45'46  | 16°51          | 12° 7          | 29°52           | 9°20           | 5° 8          | 25°16 | 14°57          | 23°27          | 28°30          | 8°51          | 8°50          | 2° 4          | 12°28          | F 27 |
| S 28 | 8 28 0  | 7°46'45  | 0810           | 12°58          | 1 <b>)</b> 7    | 9°30           | 5°19          | 25°23 | 14°57          | 23°29          | 28°32          | 8°50          | 8°46          | 2°11          | 12°30          | S 28 |
| S 29 | 8 31 57 | 8°47'44  | 13° 3          | 13°54          | 2°21            | 9°41           | 5°30          | 25°30 | 14°57          | 23°31          | 28°34          | 8°50          | 8°43          | 2°17          | 12°32          | S 29 |
| M30  | 8 35 53 | 9°48'41  | 25°35          | 1 <u>4</u> °52 | 3°36            | 9°52           | 5°41          | 25°37 | 14°58          | 23°32          | 28°36          | 8°49          | 8°40          | 2°24          | 12°34          | M30  |
| T 31 | 8 39 50 | 10≈49'37 | 7 <b>Ⅱ</b> 51  | 15 <b>る</b> 53 | 4 <b>) (</b> 51 | 10耳 4          | 5 <b>Ƴ</b> 52 | 25≈44 | 14 <b>8</b> 58 | 23 <b>)</b> 34 | 28 <b>궁</b> 38 | 8 <b>8</b> 47 | 8 <b>8</b> 37 | 2 <b>Ω</b> 31 | 12 <b>Y</b> 36 | T 31 |

| Day  | 0  | D   | ğ  | 9   | ♂   | 4   | ħ  | )Å(  | <del>1</del> f   | Р  | n  | v t   | ķ  |
|--|--|---|--|---|---|---|--|--|--|--|--|---|--|
|  | decl                                     | decl lat  | decl lat   | decl lat de   | el lat  | decl lat  | decl lat   | decl lat   | decl lat   | decl lat   | decl   | decl decl   | decl lat   |
| S 1<br>M 2<br>T 3<br>W 4<br>T 5<br>F 6<br>S 7      | 22 57<br>22 52<br>22 46<br>22 40         | 17 5 0n24<br>21 17 1 29<br>24 31 2 28<br>26 35 3 21<br>27 24 4 3            | 20 17 1<br>20 6 1<br>19 56 1<br>19 48 2<br>19 42 2 | 152 22 s 2 1 s23 24n<br>11 21 48 1 24 24<br>31 21 34 1 25 24<br>50 21 19 1 26 24<br>8 21 3 1 27 24<br>25 20 46 1 28 24<br>40 20 29 1 29 24  | 34 2 49<br>33 2 50<br>32 2 50<br>32 2 50<br>31 2 50   | 0 36 1 17<br>0 33 1 16<br>0 29 1 16<br>0 26 1 16                        | 15 11 1 15<br>15 9 1 15<br>15 7 1 15<br>15 5 1 15<br>15 3 1 15     | 16 2 0 21<br>16 1 0 21<br>16 1 0 21<br>16 1 0 21                           | 3 55 1 11<br>3 54 1 11<br>3 54 1 11<br>3 53 1 11<br>3 53 1 11              | 22 50 2 15<br>22 50 2 15<br>22 49 2 15<br>22 49 2 15<br>22 49 2 15                             | 15 22 1<br>15 21 1<br>15 20 1<br>15 18 1<br>15 15 1          | 14n53 25n16<br>14 52 25 15<br>14 51 25 13<br>14 50 25 12<br>14 49 25 11<br>14 48 25 9<br>14 47 25 8   | 6 21 1 46<br>6 21 1 46<br>6 22 1 45<br>6 22 1 45<br>6 22 1 45              |
| S 8<br>M 9<br>T 10<br>W11<br>T 12<br>F 13          | 22 18<br>22 10                           | 25 14 4 55<br>22 25 5 1<br>18 41 4 55<br>14 11 4 36<br>9 8 4 4<br>3 40 3 21 | 19 34 2 19 33 3 19 34 3 19 36 3 19 40 3            | 53 20 12 1 30 24<br>4 19 53 1 31 24<br>12 19 34 1 32 24<br>18 19 15 1 32 24   | 29 2 50<br>29 2 51<br>29 2 51<br>28 2 50<br>28 2 50<br>28 2 50  | 0 19 1 16<br>0 16 1 15<br>0 12 1 15<br>0 8 1 15<br>0 5 1 15<br>0 1 1 14 | 14 59 1 15<br>14 57 1 15<br>14 54 1 15<br>14 52 1 15               | 16 0 0 21<br>16 0 0 21 | 3 52 1 11<br>3 52 1 11<br>3 51 1 11<br>3 51 1 11<br>3 50 1 11<br>3 49 1 11 | 22 48 2 16<br>22 48 2 16<br>22 47 2 16<br>22 47 2 16<br>22 47 2 16<br>22 47 2 16<br>22 46 2 16 | 15 7 1<br>15 3 1<br>14 59 1<br>14 56 1<br>14 53 1<br>14 51 1 | 14 46 25 7<br>14 45 25 5<br>14 44 25 4<br>14 43 25 3<br>14 42 25 1<br>14 41 25 0<br>14 40 24 59       | 6 22 1 45<br>6 22 1 45<br>6 23 1 44<br>6 23 1 44<br>6 23 1 44<br>6 23 1 44 |
| S 15<br>M16<br>T 17<br>W18<br>T 19<br>F 20<br>S 21 | 20 50<br>20 38<br>20 26<br>20 14         | 13 22 0 19<br>18 32 0s52<br>22 54 2 2<br>26 1 3 7<br>27 25 4 1              | 19 57 3<br>20 4 3<br>20 12 3<br>20 20 2<br>20 28 2 | 18     17     52     1     35     24       13     17     30     1     35     24       7     17     8     1     35     24       0     16     45     1     35     24       52     16     21     1     35     24       43     15     58     1     36     24       34     15     33     1     36     24 | 28 2 50<br>28 2 49<br>28 2 49<br>29 2 49<br>29 2 48   | 0 11 1 14<br>0 15 1 14<br>0 19 1 13<br>0 23 1 13<br>0 27 1 13           | 14 41 1 15<br>14 39 1 15<br>14 37 1 15<br>14 35 1 15<br>14 32 1 15 |  | 3 48 1 11<br>3 47 1 11<br>3 47 1 11<br>3 46 1 11<br>3 45 1 11              | 22 45 2 16<br>22 45 2 16<br>22 45 2 16<br>22 44 2 16<br>22 44 2 17                             | 14 50 1<br>14 50 1<br>14 50 1<br>14 48 1<br>14 46 1          | 14 39 24 57<br>14 38 24 56<br>14 37 24 55<br>14 36 24 53<br>14 35 24 52<br>14 34 24 50<br>14 33 24 49 | 6 24 1 43<br>6 25 1 43<br>6 25 1 43<br>6 25 1 43<br>6 26 1 43              |
| S 22<br>M23<br>T 24<br>W25<br>T 26<br>F 27<br>S 28 | 19 33<br>19 19<br>19 5<br>18 50<br>18 35 | 19 51 4 56<br>14 16 4 33<br>8 0 3 51<br>1 29 2 57<br>4n53 1 53              | 20 53 2<br>21 1 2<br>21 8 1<br>21 15 1<br>21 21 1  | 24 15 9 1 35 24<br>14 14 43 1 35 24<br>4 14 18 1 35 24<br>53 13 52 1 35 24<br>43 13 26 1 34 24<br>32 12 59 1 34 24<br>22 12 32 1 33 24  | 31     2     47       32     2     47       32     2     46       33     2     46       34     2     45 | 0 39 1 12<br>0 44 1 12<br>0 48 1 12<br>0 52 1 12<br>0 57 1 12           | 14 26 1 15<br>14 23 1 15<br>14 21 1 15<br>14 19 1 15<br>14 16 1 15 |  | 3 43 1 11<br>3 43 1 11<br>3 42 1 11<br>3 41 1 11<br>3 41 1 11              | 22 43 2 17<br>22 43 2 17<br>22 43 2 17<br>22 42 2 17<br>22 42 2 17                             | 14 36 1<br>14 32 1<br>14 30 1<br>14 28 1<br>14 27 1          | 14 32 24 48<br>14 31 24 46<br>14 30 24 45<br>14 28 24 43<br>14 27 24 42<br>14 26 24 40<br>14 25 24 39 | 6 27 1 42<br>6 28 1 42<br>6 28 1 42<br>6 29 1 42<br>6 29 1 42              |
| S 29<br>M30<br>T 31                                | 18 4<br>17 47<br>17 s31                  | 20 34 1 27  | 21 35 1  | 12 12 5 1 33 24<br>2 11 37 1 32 24<br>n51 11s 9 1s31 24n  | 2 44  | 1 10 1 11   | 14 9 1 15  | 16 0 0 21<br>16 0 0 21<br>16n 0 0 s21                                      | 3 39 1 10  | 22 41 2 17   | 14 26  | 14 24 24 38<br>14 23 24 36<br>14n22 24n35   | 6 31 1 41  |

Julian Day Number = 2459945.5, Delta T = 69.18 sec Ecliptic obliquity =  $23^{\circ}26'17$ , Nutation = -0°00'11, out-of-bounds declination in red Ayanamsha: Fagan/Bradley =  $25^{\circ}03'42$ , Lahiri =  $24^{\circ}10'42$ 

FEBRUARY 2023 00:00 UT

| Day  | Sid.t    | 0               | D              | ğ              | φ             | ♂ <sup>™</sup> | 4              | ħ     | )ұ(            | 并               | Р              | V             | v             | Ç             | Ŗ              | Day  |
|------|----------|-----------------|----------------|----------------|---------------|----------------|----------------|-------|----------------|-----------------|----------------|---------------|---------------|---------------|----------------|------|
| W 1  | 8 43 47  | 11≈50'31        | 19 <b>Ⅱ</b> 56 | 16 <b>ප</b> 57 | 6 <b>米</b> 5  | 10 <b>耳</b> 17 | 6 <b>℃</b> 3   | 25≈51 | 14859          | 23 <b>米</b> 36  | 28 <b>궁</b> 40 | 8°R42         | 8 <b>8</b> 34 | 2 <b>Ω</b> 38 | 12 <b>Y</b> 38 | W 1  |
| T 2  | 8 47 43  | 12°51'25        | 1954           | 18° 3          | 7°20          | 10°30          | 6°15           | 25°58 | 14°59          | 23°38           | 28°42          | 8 <b>8</b> 35 | 8°31          | 2°44          | 12°40          | T 2  |
| F 3  | 8 51 40  | 13°52'17        | 13°47          | 19°12          | 8°34          | 10°43          | 6°26           | 26° 5 | 15° 0          | 23°40           | 28°44          | 8°24          | 8°27          | 2°51          | 12°42          | F 3  |
| S 4  | 8 55 36  | 14°53'08        | 25°39          | 20°22          | 9°49          | 10°57          | 6°38           | 26°13 | 15° 0          | 23°41           | 28°46          | 8°11          | 8°24          | 2°58          | 12°45          | S 4  |
| S 5  | 8 59 33  | 15°53'58        | 7 <b>Ω</b> 31  | 21°35          | 11° 3         | 11°12          | 6°49           | 26°20 | 15° 1          | 23°43           | 28°48          | 7°56          | 8°21          | 3° 4          | 12°47          | S 5  |
| M 6  | 9 3 29   | 16°54'46        | 19°25          | 22°49          | 12°18         | 11°27          | 7° 1           | 26°27 | 15° 2          | 23°45           | 28°49          | 7°41          | 8°18          | 3°11          | 12°49          | M 6  |
| T 7  | 9 7 26   | 17°55'34        | 1 <b>m</b> 23  | 24° 4          | 13°32         | 11°43          | 7°13           | 26°34 | 15° 2          | 23°47           | 28°51          | 7°27          | 8°15          | 3°18          | 12°51          | T 7  |
| W 8  | 9 11 22  | 18°56'20        | 13°25          | 25°21          | 14°46         | 11°59          | 7°25           | 26°41 | 15° 3          | 23°49           | 28°53          | 7°15          | 8°12          | 3°25          | 12°54          | W 8  |
| T 9  | 9 15 19  | 19°57'05        | 25°32          | 26°40          | 16° 1         | 12°15          | 7°37           | 26°48 | 15° 4          | 23°51           | 28°55          | 7° 6          | 8° 8          | 3°31          | 12°56          | T 9  |
| F 10 | 9 19 16  | 20°57'49        | 7 <b>≏</b> 48  | 28° 0          | 17°15         | 12°32          | 7°49           | 26°56 | 15° 5          | 23°53           | 28°57          | 7° 0          | 8° 5          | 3°38          | 12°58          | F 10 |
| S 11 | 9 23 12  | 21°58'32        | 20°13          | 29°21          | 18°29         | 12°49          | 8° 1           | 27° 3 | 15° 6          | 23°55           | 28°59          | 6°56          | 8° 2          | 3°45          | 13° 1          | S 11 |
| S 12 | 9 27 9   | 22°59'14        | 2 <b>M</b> 53  | 0≈43           | 19°43         | 13° 7          | 8°13           | 27°10 | 15° 7          | 23°57           | 29° 1          | 6°D55         | 7°59          | 3°51          | 13° 3          | S 12 |
| M13  | 9 31 5   | 23°59'54        | 15°50          | 2° 7           | 20°58         | 13°25          | 8°25           | 27°17 | 15° 8          | 23°59           | 29° 2          | 6°55          | 7°56          | 3°58          | 13° 6          | M13  |
| T 14 | 9 35 2   | 25° 0'34        | 29° 9          | 3°32           | 22°12         | 13°44          | 8°38           | 27°25 | 15° 9          | 24° 1           | 29° 4          | 6°R55         | 7°52          | 4° 5          | 13° 8          | T 14 |
| W15  | 9 38 58  | 26° 1'13        | 12 <b>×</b> 51 | 4°57           | 23°26         | 14° 3          | 8°50           | 27°32 | 15°10          | 24° 3           | 29° 6          | 6°54          | 7°49          | 4°12          | 13°11          | W15  |
| T 16 | 9 42 55  | 27° 1'51        | 27° 0          | 6°24           | 24°40         | 14°22          | 9° 3           | 27°39 | 15°12          | 24° 5           | 29° 8          | 6°51          | 7°46          | 4°18          | 13°14          | T 16 |
| F 17 | 9 46 51  | 28° 2'27        | 11 <b>る</b> 34 | 7°52           | 25°54         | 14°42          | 9°15           | 27°46 | 15°13          | 24° 7           | 29°10          | 6°45          | 7°43          | 4°25          | 13°16          | F 17 |
| S 18 | 9 50 48  | 29° 3'02        | 26°30          | 9°21           | 27° 8         | 15° 2          | 9°28           | 27°54 | 15°14          | 24° 9           | 29°11          | 6°37          | 7°40          | 4°32          | 13°19          | S 18 |
| S 19 | 9 54 45  | 0₩ 3'36         | 11 <b>≈</b> 39 | 10°51          | 28°22         | 15°23          | 9°41           | 28° 1 | 15°16          | 24°11           | 29°13          | 6°27          | 7°37          | 4°39          | 13°22          | S 19 |
| M20  | 9 58 41  | 1° 4'09         | 26°53          | 12°22          | 29°36         | 15°44          | 9°54           | 28° 8 | 15°17          | 24°14           | 29°15          | 6°17          | 7°33          | 4°45          | 13°24          | M20  |
| T 21 | 10 238   | 2° 4'39         | 11 <b>米</b> 59 | 13°53          | 0 <b>Υ</b> 49 | 16° 5          | 10° 7          | 28°15 | 15°18          | 24°16           | 29°17          | 6° 7          | 7°30          | 4°52          | 13°27          | T 21 |
| W22  | 10 6 34  | 3° 5'08         | 26°49          | 15°26          | 2° 3          | 16°27          | 10°20          | 28°23 | 15°20          | 24°18           | 29°18          | 5°59          | 7°27          | 4°59          | 13°30          | W22  |
| T 23 | 10 10 31 | 4° 5'36         | 11 <b>Y</b> 14 | 17° 0          | 3°17          | 16°49          | 10°33          | 28°30 | 15°21          | 24°20           | 29°20          | 5°54          | 7°24          | 5° 5          | 13°33          | T 23 |
| F 24 | 10 14 27 | 5° 6'01         | 25°11          | 18°35          | 4°31          | 17°11          | 10°46          | 28°37 | 15°23          | 24°22           | 29°22          | 5°52          | 7°21          | 5°12          | 13°36          | F 24 |
| S 25 | 10 18 24 | 6° 6'25         | 8 <b>8</b> 39  | 20°10          | 5°44          | 17°33          | 10°59          | 28°44 | 15°25          | 24°24           | 29°23          | 5°D51         | 7°17          | 5°19          | 13°39          | S 25 |
| S 26 | 10 22 20 | 7° 6'47         | 21°39          | 21°47          | 6°58          | 17°56          | 11°12          | 28°52 | 15°26          | 24°27           | 29°25          | 5°52          | 7°14          | 5°26          | 13°42          | S 26 |
| M27  | 10 26 17 | 8° 7'07         | 4 <b>Ⅱ</b> 17  | 23°24          | 8°11          | 18°19          | 11°25          | 28°59 | 15°28          | 24°29           | 29°26          | 5°R53         | 7°11          | 5°32          | 13°45          | M27  |
| T 28 | 10 30 14 | 9 <b>光</b> 7'25 | 16耳35          | 25≈ 3          | 9 <b>Υ</b> 25 | 18 <b>Ⅱ</b> 43 | 11 <b>Y</b> 39 | 29≈ 6 | 15 <b>8</b> 30 | 24 <b>)</b> (31 | 29る28          | 5 <b>8</b> 53 | 7 <b>と</b> 8  | 5 <b>Ω</b> 39 | 13 <b>Y</b> 48 | T 28 |

| Day  | 0      | Ž     | )     | ζ      | 5    | Ç     | 2       | ď     | 7    | 24   | ļ.      | ħ        | l       | )     | f(      | Ä       | ħ     | E      | 2       | n     | Ω     | Ç     | Š    |      |
|------|--------|-------|-------|--------|------|-------|---------|-------|------|------|---------|----------|---------|-------|---------|---------|-------|--------|---------|-------|-------|-------|------|------|
|      | decl   | decl  | lat   | decl   | lat  | decl  | lat     | decl  | lat  | decl | lat     | decl     | lat     | decl  | lat     | decl    | lat   | decl   | lat     | decl  | decl  | decl  | decl | lat  |
| W 1  | 17 s14 | 26n21 | 3n19  | 21 s40 | 0n42 | 10s41 | 1 s 3 1 | 24n40 | 2n43 | 1n19 | 1 s 1 1 | 14s 5    | 1 s 1 5 | 16n 0 | 0s21    | 3 s37   | 1 s10 | 22 s40 | 2s18    | 14n24 | 14n21 | 24n33 | 6n33 | 1n41 |
| T 2  | 16 57  | 27 26 | 4 1   | 21 42  | 0 32 | 10 12 | 1 30    | 24 42 | 2 42 | 1 24 | 1 10    | 14 2     | 1 15    | 16 0  | 0 21    | 3 36    | 1 10  | 22 40  | 2 18    | 14 22 | 14 20 | 24 32 | 6 33 | 1 41 |
| F 3  | 16 40  | 27 15 | 4 33  | 21 42  | 0 22 | 9 44  | 1 29    | 24 43 | 2 42 | 1 29 | 1 10    | 14 0     | 1 15    | 16 0  | 0 21    | 3 36    | 1 10  | 22 40  | 2 18    | 14 18 | 14 19 | 24 30 | 6 34 | 1 41 |
| S 4  | 16 22  | 25 48 | 4 52  | 21 41  | 0 13 | 9 15  | 1 28    | 24 44 | 2 41 | 1 33 | 1 10    | 13 57    | 1 15    | 16 1  | 0 21    | 3 35    | 1 10  | 22 39  | 2 18    | 14 14 | 14 18 | 24 29 | 6 35 | 1 41 |
| S 5  | 16 4   | 23 12 | 4 59  | 21 38  | 0 4  | 8 45  | 1 27    | 24 46 | 2 40 | 1 38 | 1 10    | 13 55    | 1 15    | 16 1  | 0 21    | 3 34    | 1 10  | 22 39  | 2 18    | 14 9  | 14 17 | 24 27 | 6 35 | 1 40 |
| M 6  | 15 46  | 19 38 | 4 53  | 21 35  | 0s 5 | 8 16  | 1 25    | 24 47 | 2 40 | 1 43 | 1 10    | 13 53    | 1 15    | 16 1  | 0 20    | 3 33    | 1 10  | 22 39  | 2 18    | 14 5  | 14 16 | 24 26 | 6 36 | 1 40 |
| T 7  | 15 27  | 15 15 | 4 34  | 21 31  | 0 13 | 7 46  | 1 24    | 24 49 | 2 39 | 1 48 | 1 10    | 13 50    | 1 15    | 16 1  | 0 20    | 3 33    | 1 10  | 22 39  | 2 18    | 14 0  | 14 15 | 24 24 | 6 37 | 1 40 |
| W 8  | 15 9   | 10 15 | 4 3   | 21 25  | 0 22 | 7 16  | 1 23    | 24 51 | 2 39 | 1 53 | 1 9     | 13 48    | 1 15    | 16 2  | 0 20    | 3 32    | 1 10  | 22 38  | 2 18    | 13 56 | 14 14 | 24 22 | 6 38 | 1 40 |
| T 9  | 14 50  | 4 50  | 3 20  | 21 18  | 0 30 | 6 46  | 1 22    | 24 52 | 2 38 | 1 57 | 1 9     | 13 45    | 1 15    | 16 2  | 0 20    | 3 31    | 1 10  | 22 38  | 2 19    | 13 53 | 14 13 | 24 21 | 6 38 | 1 40 |
| F 10 | 14 30  | 0s50  | 2 28  | 21 10  | 0 38 | 6 16  | 1 20    | 24 54 | 2 37 | 2 2  | 1 9     | 13 43    | 1 15    | 16 2  | 0 20    | 3 30    | 1 10  | 22 38  | 2 19    | 13 51 | 14 12 | 24 19 | 6 39 | 1 40 |
| S 11 | 14 11  | 6 33  | 1 27  | 21 1   | 0 45 | 5 46  | 1 19    | 24 55 | 2 37 | 2 7  | 1 9     | 13 40    | 1 15    | 16 2  | 0 20    | 3 29    | 1 10  | 22 37  | 2 19    | 13 50 | 14 11 | 24 18 | 6 40 | 1 40 |
| S 12 | 13 51  | 12 8  | 0 21  | 20 51  | 0 52 | 5 15  | 1 17    | 24 57 | 2 36 | 2 12 | 1 9     | 13 38    | 1 15    | 16 3  | 0 20    | 3 29    | 1 10  | 22 37  | 2 19    | 13 49 | 14 10 | 24 16 | 6 41 | 1 40 |
| M13  | 13 31  | 17 20 | 0 s47 | 20 39  | 0 59 | 4 44  | 1 15    | 24 59 | 2 35 | 2 17 | 1 9     | 13 36    | 1 15    | 16 3  | 0 20    | 3 28    | 1 10  | 22 37  | 2 19    | 13 49 | 14 9  | 24 15 | 6 42 | 1 39 |
| T 14 | 13 11  | 21 50 | 1 55  | 20 26  | 1 6  | 4 13  | 1 14    | 25 0  | 2 35 | 2 22 | 1 9     | 13 33    | 1 15    | 16 3  | 0 20    | 3 27    | 1 10  | 22 37  | 2 19    | 13 49 | 14 8  | 24 13 | 6 43 | 1 39 |
| W15  | 12 51  | 25 17 | 2 58  | 20 12  | 1 12 | 3 43  | 1 12    | 25 2  | 2 34 | 2 27 | 1 8     | 13 31    | 1 15    | 16 4  | 0 20    | 3 26    | 1 10  | 22 36  | 2 19    | 13 49 | 14 7  | 24 12 | 6 44 | 1 39 |
| T 16 | 12 30  | 27 17 | 3 53  | 19 56  | 1 18 | 3 11  | 1 10    | 25 4  | 2 33 | 2 32 | 1 8     | 13 28    | 1 16    | 16 4  | 0 20    | 3 25    | 1 10  | 22 36  | 2 19    | 13 48 | 14 6  | 24 10 | 6 44 | 1 39 |
| F 17 | 12 9   | 27 29 | 4 34  | 19 39  | 1 24 | 2 40  | 1 8     | 25 5  | 2 33 | 2 37 | 1 8     | 13 26    | 1 16    | 16 5  | 0 20    | 3 25    | 1 10  | 22 36  | 2 19    | 13 46 | 14 5  | 24 8  | 6 45 | 1 39 |
| S 18 | 11 48  | 25 43 | 4 58  | 19 21  | 1 30 | 2 9   | 1 6     | 25 7  | 2 32 | 2 43 | 1 8     | 13 23    | 1 16    | 16 5  | 0 20    | 3 24    | 1 10  | 22 36  | 2 20    | 13 43 | 14 4  | 24 7  | 6 46 | 1 39 |
| S 19 | 11 27  | 22 6  | 5 1   | 19 2   | 1 35 | 1 38  | 1 4     | 25 9  | 2 31 | 2 48 | 1 8     | 13 21    | 1 16    | 16 5  | 0 20    | 3 23    | 1 10  | 22 35  | 2 20    | 13 40 | 14 3  | 24 5  | 6 47 | 1 39 |
| M20  | 11 6   | 16 59 | 4 43  | 18 41  | 1 40 | 1 7   | 1 2     | 25 10 | 2 31 | 2 53 | 1 8     | 13 18    | 1 16    | 16 6  | 0 20    | 3 22    | 1 10  | 22 35  | 2 20    | 13 37 | 14 2  | 24 4  | 6 48 | 1 38 |
| T 21 | 10 44  | 10 51 | 4 6   | 18 19  | 1 44 | 0 35  | 1 0     | 25 12 | 2 30 | 2 58 | 1 8     | 13 16    | 1 16    | 16 6  | 0 20    | 3 21    | 1 10  | 22 35  | 2 20    | 13 34 | 14 1  | 24 2  | 6 49 | 1 38 |
| W22  | 10 22  | 4 12  | 3 12  | 17 56  | 1 48 | 0 4   | 0 58    | 25 13 | 2 29 | 3 3  | 1 7     | 13 13    | 1 16    | 16 7  | 0 20    | 3 20    | 1 10  | 22 35  | 2 20    | 13 31 | 14 0  | 24 0  | 6 50 | 1 38 |
| T 23 | 10 0   | 2n30  | 2 7   | 17 31  | 1 52 | 0n28  | 0 55    | 25 15 | 2 29 | 3 9  | 1 7     | 13 11    | 1 16    | 16 7  | 0 20    | 3 19    | 1 10  | 22 34  | 2 20    | 13 29 | 13 59 | 23 59 | 6 51 | 1 38 |
| F 24 | 9 38   | 8 52  | 0 57  | 17 5   | 1 56 | 0 59  | 0 53    | 25 16 | 2 28 | 3 14 | 1 7     | 13 9     | 1 16    | 16 8  | 0 20    | 3 19    | 1 10  | 22 34  | 2 20    | 13 29 | 13 58 | 23 57 | 6 52 | 1 38 |
| S 25 | 9 16   | 14 37 | 0n15  | 16 38  | 1 59 | 1 30  | 0 51    | 25 18 | 2 27 | 3 19 | 1 7     | 13 6     | 1 16    | 16 8  | 0 20    | 3 18    | 1 10  | 22 34  | 2 20    | 13 28 | 13 57 | 23 55 | 6 53 | 1 38 |
| S 26 | 8 54   | 19 31 | 1 23  | 16 10  | 2 1  | 2 2   | 0 48    | 25 19 | 2 27 | 3 24 | 1 7     | 13 4     | 1 16    | 16 9  | 0 20    | 3 17    | 1 10  | 22 34  | 2 21    | 13 29 | 13 56 | 23 54 | 6 54 | 1 38 |
| M27  | 8 32   | 23 23 | 2 26  | 15 40  | 2 4  | 2 33  | 0 46    | 25 21 | 2 26 | 3 30 |         | 13 1     | 1 16    | 16 9  | 0 20    | 3 16    | 1 10  | 22 34  | 2 21    | 13 29 | 13 55 | 23 52 | 6 55 | 1 38 |
| T 28 | 8s 9   | 26n 5 | 3n20  | 15s 9  | 2s 6 | 3n 4  | 0 s43   | 25n22 | 2n25 | 3n35 | 1 s 7   | 12 s 5 9 | 1s16    | 16n10 | 0 s 2 0 | 3 s 1 5 | 1 s10 | 22 s33 | 2 s 2 1 | 13n29 | 13n54 | 23n50 | 6n56 | 1n38 |

Julian Day Number = 2459976.5, Delta T = 69.18 sec Ecliptic obliquity =  $23^{\circ}26'18$ , Nutation = -0°00'09, out-of-bounds declination in red Ayanamsha: Fagan/Bradley =  $25^{\circ}03'46$ , Lahiri =  $24^{\circ}10'46$ 

MARCH 2023 00:00 UT

| Day  | Sid.t    | 0                | D               | ğ              | Q              | ♂             | 4              | ħ             | )∤(            | ¥               | Р              | u             | v             | Ç             | , k            | Day  |
|------|----------|------------------|-----------------|----------------|----------------|---------------|----------------|---------------|----------------|-----------------|----------------|---------------|---------------|---------------|----------------|------|
| W 1  | 10 34 10 | 10 <b>)</b> 7'41 | 28 <b>Ⅱ</b> 40  | 26≈43          | 10 <b>Y</b> 38 | 19 <b>I</b> 7 | 11 <b>Y</b> 52 | 29≈13         | 15 <b>8</b> 32 | 24 <b>)</b> (33 | 29 <b>궁</b> 30 | 5°R50         | 7 <b>岁</b> 5  | 5 <b>Ω</b> 46 | 13 <b>Y</b> 51 | W 1  |
| T 2  | 10 38 7  | 11° 7'54         | 10936           | 28°23          | 11°52          | 19°31         | 12° 6          | 29°20         | 15°34          | 24°35           | 29°31          | 5 <b>8</b> 46 | 7° 2          | 5°53          | 13°54          | T 2  |
| F 3  | 10 42 3  | 12° 8'06         | 22°28           | 0 <b>∀</b> 5   | 13° 5          | 19°55         | 12°19          | 29°28         | 15°36          | 24°38           | 29°33          | 5°40          | 6°58          | 5°59          | 13°57          | F 3  |
| S 4  | 10 46 0  | 13° 8'16         | 4 <b>Ω</b> 19   | 1°48           | 14°18          | 20°19         | 12°33          | 29°35         | 15°38          | 24°40           | 29°34          | 5°31          | 6°55          | 6° 6          | 14° 0          | S 4  |
| S 5  | 10 49 56 | 14° 8'24         | 16°12           | 3°31           | 15°31          | 20°44         | 12°46          | 29°42         | 15°40          | 24°42           | 29°36          | 5°21          | 6°52          | 6°13          | 14° 3          | S 5  |
| M 6  | 10 53 53 | 15° 8'30         | 28°11           | 5°16           | 16°44          | 21° 9         | 13° 0          | 29°49         | 15°42          | 24°44           | 29°37          | 5°11          | 6°49          | 6°19          | 14° 6          | M 6  |
| T 7  | 10 57 49 | 16° 8'34         | 10 <b>m</b> )15 | 7° 2           | 17°58          | 21°35         | 13°14          | 29°56         | 15°44          | 24°47           | 29°39          | 5° 1          | 6°46          | 6°26          | 14°10          | T 7  |
| W 8  | 11 1 46  | 17° 8'36         | 22°27           | 8°49           | 19°10          | 22° 0         | 13°27          | 0 <b>)</b> 3  | 15°46          | 24°49           | 29°40          | 4°53          | 6°43          | 6°33          | 14°13          | W 8  |
| T 9  | 11 5 43  | 18° 8'36         | 4 <b>≙</b> 47   | 10°37          | 20°23          | 22°26         | 13°41          | 0°10          | 15°48          | 24°51           | 29°42          | 4°47          | 6°39          | 6°40          | 14°16          | T 9  |
| F 10 | 11 9 39  | 19° 8'35         | 17°17           | 12°26          | 21°36          | 22°52         | 13°55          | 0°17          | 15°50          | 24°53           | 29°43          | 4°43          | 6°36          | 6°46          | 14°19          | F 10 |
| S 11 | 11 13 36 | 20° 8'31         | 29°57           | 14°17          | 22°49          | 23°18         | 14° 9          | 0°24          | 15°52          | 24°56           | 29°44          | 4°D42         | 6°33          | 6°53          | 14°23          | S 11 |
| S 12 | 11 17 32 | 21° 8'26         | 12 <b>M</b> 50  | 16° 8          | 24° 2          | 23°45         | 14°23          | 0°31          | 15°55          | 24°58           | 29°46          | 4°42          | 6°30          | 7° 0          | 14°26          | S 12 |
| M13  | 11 21 29 | 22° 8'20         | 25°56           | 18° 1          | 25°14          | 24°11         | 14°37          | 0°38          | 15°57          | 25° 0           | 29°47          | 4°43          | 6°27          | 7° 6          | 14°29          | M13  |
| T 14 | 11 25 25 | 23° 8'11         | 9 <b>∡</b> 19   | 19°54          | 26°27          | 24°38         | 14°51          | 0°45          | 15°59          | 25° 2           | 29°49          | 4°45          | 6°23          | 7°13          | 14°32          | T 14 |
| W15  | 11 29 22 | 24° 8'02         | 22°59           | 21°49          | 27°39          | 25° 5         | 15° 5          | 0°52          | 16° 2          | 25° 5           | 29°50          | 4°R45         | 6°20          | 7°20          | 14°36          | W15  |
| T 16 | 11 33 18 | 25° 7'50         | 6 <b>ප</b> 59   | 23°45          | 28°52          | 25°32         | 15°19          | 0°59          | 16° 4          | 25° 7           | 29°51          | 4°45          | 6°17          | 7°27          | 14°39          | T 16 |
| F 17 | 11 37 15 | 26° 7'37         | 21°17           | 25°42          | 0 <b>8</b> 4   | 26° 0         | 15°33          | 1° 6          | 16° 7          | 25° 9           | 29°52          | 4°42          | 6°14          | 7°33          | 14°43          | F 17 |
| S 18 | 11 41 12 | 27° 7'22         | 5 <b>≈</b> 51   | 27°40          | 1°17           | 26°27         | 15°47          | 1°12          | 16° 9          | 25°12           | 29°54          | 4°38          | 6°11          | 7°40          | 14°46          | S 18 |
| S 19 | 11 45 8  | 28° 7'06         | 20°36           | 29°38          | 2°29           | 26°55         | 16° 1          | 1°19          | 16°12          | 25°14           | 29°55          | 4°33          | 6° 8          | 7°47          | 14°49          | S 19 |
| M20  | 11 49 5  | 29° 6'47         | 5 <b>₩</b> 27   | 1 <b>Y</b> 38  | 3°41           | 27°23         | 16°15          | 1°26          | 16°14          | 25°16           | 29°56          | 4°28          | 6° 4          | 7°54          | 14°53          | M20  |
| T 21 | 11 53 1  | 0 <b>℃</b> 6'27  | 20°14           | 3°38           | 4°53           | 27°51         | 16°30          | 1°33          | 16°17          | 25°18           | 29°57          | 4°23          | 6° 1          | 8° 0          | 14°56          | T 21 |
| W22  | 11 56 58 | 1° 6'04          | 4 <b>Υ</b> 49   | 5°38           | 6° 5           | 28°20         | 16°44          | 1°39          | 16°20          | 25°21           | 29°58          | 4°19          | 5°58          | 8° 7          | 15° 0          | W22  |
| T 23 | 12 0 54  | 2° 5'40          | 19° 7           | 7°39           | 7°17           | 28°48         | 16°58          | 1°46          | 16°22          | 25°23           | 29°59          | 4°16          | 5°55          | 8°14          | 15° 3          | T 23 |
| F 24 | 12 4 51  | 3° 5'13          | 3 <b>8</b> 2    | 9°40           | 8°29           | 29°17         | 17°12          | 1°52          | 16°25          | 25°25           | 0≈ 1           | 4°D15         | 5°52          | 8°20          | 15° 7          | F 24 |
| S 25 | 12 8 47  | 4° 4'45          | 16°32           | 11°41          | 9°41           | 29°46         | 17°27          | 1°59          | 16°28          | 25°27           | 0° 2           | 4°16          | 5°49          | 8°27          | 15°10          | S 25 |
| S 26 | 12 12 44 | 5° 4'14          | 29°38           | 13°41          | 10°52          | 09୍ତ15        | 17°41          | 2° 5          | 16°31          | 25°30           | 0° 3           | 4°17          | 5°45          | 8°34          | 15°13          | S 26 |
| M27  | 12 16 41 | 6° 3'41          | 12Ⅲ20           | 15°41          | 12° 4          | 0°44          | 17°55          | 2°12          | 16°33          | 25°32           | 0° 4           | 4°19          | 5°42          | 8°41          | 15°17          | M27  |
| T 28 | 12 20 37 | 7° 3'05          | 24°44           | 17°40          | 13°15          | 1°13          | 18°10          | 2°18          | 16°36          | 25°34           | 0° 5           | 4°20          | 5°39          | 8°47          | 15°20          | T 28 |
| W29  | 12 24 34 | 8° 2'28          | 6952            | 19°38          | 14°27          | 1°43          | 18°24          | 2°25          | 16°39          | 25°36           | 0° 6           | 4°R21         | 5°36          | 8°54          | 15°24          | W29  |
| T 30 | 12 28 30 | 9° 1'48          | 18°51           | 21°33          | 15°38          | 2°12          | 18°38          | 2°31          | 16°42          | 25°39           | 0° 7           | 4°20          | 5°33          | 9° 1          | 15°27          | T 30 |
| F 31 | 12 32 27 | 10 <b>Y</b> 1'06 | 0 <b>Ω</b> 44   | 23 <b>Y</b> 27 | 16 <b>8</b> 49 | 29542         | 18 <b>Y</b> 53 | 2 <b>)</b> 37 | 16 <b>8</b> 45 | 25 <b>)</b> (41 | 0≈ 7           | 4 <b>8</b> 19 | 5 <b>8</b> 29 | 9 <b>N</b> 7  | 15 <b>Y</b> 31 | F 31 |

| Day  | 0   | D   | ğ   | ·   | ď   | 4  | ħ  | )∤(  | ¥  | В  | y s  | ð Č  | o<br>k   |
|--|---|---|---|---|---|--|--|--|--|--|--|--|--|
|  | decl  | decl lat  | decl lat  | decl lat  | decl lat  | decl lat   | decl lat   | decl lat   | decl lat   | decl lat   | decl de  | ecl decl   | decl lat   |
| W 1<br>T 2<br>F 3<br>S 4                           | 7 s46<br>7 23<br>7 1<br>6 38                                | 27 37 4 37<br>26 27 4 57  | 13 28 2   | 7 3n36 0s40<br>9 4 7 0 38<br>9 4 38 0 35<br>0 5 9 0 32                                      | 25 25 2 24<br>25 26 2 23  | 3n40 1s 7<br>3 46 1 6<br>3 51 1 6<br>3 56 1 6                        | 12 54 1 17<br>12 51 1 17   | 16n10 0s20<br>16 11 0 20<br>16 12 0 20<br>16 12 0 20               | 3 13 1 10<br>3 12 1 10   | 22 33 2 21<br>22 33 2 21   |  |  | 6 59 1 37  |
| S 5<br>M 6<br>T 7<br>W 8                           | 6 14<br>5 51<br>5 28<br>5 5                                 | 20 45 5 0<br>16 30 4 42<br>11 35 4 10<br>6 10 3 27              | 12 14 2 10<br>11 35 2 9<br>10 55 2 1<br>10 13 2             | 0 5 39 0 29<br>9 6 10 0 27<br>8 6 41 0 24<br>7 7 11 0 21                                    | 25 28 2 22<br>25 29 2 21<br>25 30 2 20<br>25 31 2 20                            | 4 2 1 6<br>4 7 1 6<br>4 13 1 6<br>4 18 1 6                           | 12 47 1 17<br>12 44 1 17<br>12 42 1 17<br>12 39 1 17                         | 16 13 0 20<br>16 13 0 20<br>16 14 0 20<br>16 15 0 20               | 3 11 1 10<br>3 10 1 10<br>3 9 1 10<br>3 8 1 10                             | 22 32 2 21<br>22 32 2 22<br>22 32 2 22<br>22 32 2 22                             | 13 18 13<br>13 15 13<br>13 12 13<br>13 9 13  | 48 23 42<br>47 23 40<br>46 23 38<br>45 23 37             | 7 2 1 37<br>7 3 1 37<br>7 4 1 37<br>7 5 1 37                               |
| T 9<br>F 10<br>S 11<br>S 12                        | 4 41<br>4 18<br>3 54<br>3 31                                | 0 27 2 34<br>5s21 1 33<br>11 3 0 26<br>16 23 0s44               | 8 47 2 2<br>8 1 1 59  |   | 25 33 2 18  | 4 29 1 6   | 12 35 1 17<br>12 32 1 17   | 16 15 0 20<br>16 16 0 20<br>16 17 0 20<br>16 17 0 20               | 3 6 1 10<br>3 5 1 10   | 22 32 2 22<br>22 31 2 22<br>22 31 2 22<br>22 31 2 22                             | 13 6 13<br>13 5 13   | 44 23 35<br>43 23 33<br>42 23 32<br>41 23 30             | 7 8 1 36<br>7 9 1 36   |
| M13<br>T 14<br>W15<br>T 16<br>F 17<br>S 18         | 3 7<br>2 43<br>2 20<br>1 56<br>1 32                         | 21 4 1 52<br>24 45 2 56<br>27 7 3 52<br>27 50 4 35<br>26 43 5 2 | 6 27 1 57<br>5 39 1 48<br>4 49 1 43<br>3 58 1 33<br>3 6 1 3 | 2 9 41 0 5<br>8 10 10 0 2<br>3 10 39 0n 1<br>7 11 8 0 4<br>1 11 37 0 7                      | 25 35 2 16<br>25 35 2 16<br>25 36 2 15<br>25 36 2 14<br>25 36 2 14              | 4 45 1 5<br>4 51 1 5<br>4 56 1 5<br>5 2 1 5<br>5 7 1 5               | 12 27 1 18<br>12 25 1 18<br>12 23 1 18<br>12 20 1 18<br>12 18 1 18           | 16 18 0 20<br>16 19 0 20<br>16 19 0 20<br>16 20 0 20<br>16 21 0 20 | 3 4 1 10<br>3 3 1 10<br>3 2 1 10<br>3 1 1 10<br>3 0 1 10                   | 22 31 2 23<br>22 30 2 23 | 13 6 13<br>13 6 13<br>13 6 13<br>13 6 13<br>13 5 13  | 40 23 28<br>39 23 26<br>38 23 24<br>37 23 23<br>36 23 21 | 7 11 1 36<br>7 12 1 36<br>7 14 1 36<br>7 15 1 36<br>7 16 1 36              |
| S 19<br>M20<br>T 21<br>W22<br>T 23<br>F 24<br>S 25 | 1 9<br>0 45<br>0 21<br>0n 3<br>0 26<br>0 50<br>1 14<br>1 37 | 19 20 4 58<br>13 39 4 26<br>7 12 3 37<br>0 26 2 34<br>6n14 1 22 | 1 20 1 1<br>0 25 1 10<br>0n30 1<br>1 26 0 5<br>2 22 0 4     | 7 12 33 0 14<br>0 13 1 0 17<br>1 13 28 0 20<br>3 13 55 0 24<br>3 14 22 0 27<br>3 14 49 0 30 | 25 37 2 12<br>25 37 2 12<br>25 36 2 11<br>25 36 2 10<br>25 36 2 10<br>25 35 2 9 | 5 18 1 5<br>5 24 1 5<br>5 29 1 5<br>5 35 1 5<br>5 40 1 5<br>5 46 1 5 | 12 13 1 18<br>12 11 1 18<br>12 9 1 18<br>12 7 1 19<br>12 4 1 19<br>12 2 1 19 | 16 24 0 19<br>16 25 0 19<br>16 25 0 19<br>16 26 0 19               | 2 58 1 10<br>2 57 1 10<br>2 56 1 10<br>2 55 1 10<br>2 55 1 10<br>2 54 1 10 | 22 30 2 24<br>22 30 2 24<br>22 30 2 24<br>22 30 2 24                             | 13 2 13  | 31 23 12<br>30 23 10<br>29 23 8                          | 7 19 1 36<br>7 20 1 36<br>7 21 1 35<br>7 22 1 35<br>7 24 1 35<br>7 25 1 35 |
| S 26<br>M27<br>T 28<br>W29<br>T 30<br>F 31         | 2 1<br>2 24<br>2 48<br>3 11<br>3 35<br>3n58                 | 27 22 4 2<br>27 54 4 39<br>27 6 5 2                             | 6 9 0 2<br>7 5 0n10<br>8 0 0 2<br>8 55 0 33                 | 2 16 6 0 41<br>0 16 31 0 44<br>1 16 56 0 47<br>3 17 20 0 51                                 | 25 33 2 7<br>25 33 2 7<br>25 32 2 6<br>25 31 2 5                                | 6 2 1 4<br>6 8 1 4<br>6 13 1 4<br>6 19 1 4                           | 11 55 1 19<br>11 53 1 19<br>11 51 1 19<br>11 49 1 20                         | 16 29 0 19<br>16 30 0 19   | 2 51 1 10<br>2 50 1 10<br>2 49 1 10<br>2 48 1 10                           | 22 29 2 25<br>22 29 2 25<br>22 29 2 25<br>22 29 2 25                             | 12 57 13<br>12 57 13<br>12 58 13<br>12 58 13<br>12 58 13<br>12 58 13<br>12 13 13 12 13 13 13 13 13 13 13 13 13 13 13 13 13 | 25 23 3<br>24 23 1<br>23 22 59<br>22 22 57               | 7 29 1 35<br>7 30 1 35<br>7 31 1 35<br>7 33 1 35                           |

Julian Day Number = 2460004.5, Delta T = 69.17 sec Ecliptic obliquity =  $23^{\circ}26'18$ , Nutation = -  $0^{\circ}00'09$ , out-of-bounds declination in red Ayanamsha: Fagan/Bradley =  $25^{\circ}03'50$ , Lahiri =  $24^{\circ}10'50$ 

APRIL 2023 00:00 UT

| Day  | Sid.t    | 0                | D              | ğ              | φ               | ð     | 4             | ħ             | )ұ(            | ¥                | Р    | v            | S             | Ç              | ę,             | Day  |
|------|----------|------------------|----------------|----------------|-----------------|-------|---------------|---------------|----------------|------------------|------|--------------|---------------|----------------|----------------|------|
| S 1  | 12 36 23 | 11 <b>°</b> 0'21 | 12 <b>N</b> 36 | 25 <b>Y</b> 18 | 188 1           | 39912 | 19 <b>Ƴ</b> 7 | 2 <b>)</b> 44 | 16 <b>8</b> 48 | 25 <b>)</b> 43   | 0≈ 8 | 4°R16        | 5 <b>8</b> 26 | 9Ω14           | 15 <b>Y</b> 35 | S 1  |
| S 2  | 12 40 20 | 11°59'34         | 24°31          | 27° 6          | 19°12           | 3°42  | 19°22         | 2°50          | 16°51          | 25°45            | 0° 9 | 4813         | 5°23          | 9°21           | 15°38          | S 2  |
| M 3  | 12 44 16 | 12°58'45         | 6 <b>m</b> 33  | 28°51          | 20°22           | 4°12  | 19°36         | 2°56          | 16°54          | 25°48            | 0°10 | 4° 9         | 5°20          | 9°28           | 15°42          | M 3  |
| T 4  | 12 48 13 | 13°57'54         | 18°45          | 0 <b>8</b> 32  | 21°33           | 4°42  | 19°51         | 3° 2          | 16°57          | 25°50            | 0°11 | 4° 6         | 5°17          | 9°34           | 15°45          | T 4  |
| W 5  | 12 52 9  | 14°57'00         | 1 <b>♀</b> 7   | 2° 9           | 22°44           | 5°13  | 20° 5         | 3° 8          | 17° 0          | 25°52            | 0°12 | 4° 3         | 5°14          | 9°41           | 15°49          | W 5  |
| T 6  | 12 56 6  | 15°56'04         | 13°42          | 3°41           | 23°55           | 5°43  | 20°19         | 3°14          | 17° 3          | 25°54            | 0°12 | 4° 1         | 5°10          | 9°48           | 15°52          | T 6  |
| F 7  | 13 0 3   | 16°55'07         | 26°30          | 5° 9           | 25° 5           | 6°14  | 20°34         | 3°20          | 17° 6          | 25°56            | 0°13 | 4° 0         | 5° 7          | 9°55           | 15°56          | F 7  |
| S 8  | 13 3 59  | 17°54'07         | 9M32           | 6°32           | 26°16           | 6°45  | 20°48         | 3°26          | 17° 9          | 25°58            | 0°14 | 4°D 0        | 5° 4          | 10° 1          | 15°59          | S 8  |
| S 9  | 13 7 56  | 18°53'06         | 22°46          | 7°49           | 27°26           | 7°16  | 21° 3         | 3°32          | 17°12          | 26° 1            | 0°14 | 4° 1         | 5° 1          | 10° 8          | 16° 3          | S 9  |
| M10  | 13 11 52 | 19°52'02         | 6 <b>₹</b> 14  | 9° 1           | 28°36           | 7°47  | 21°17         | 3°37          | 17°15          | 26° 3            | 0°15 | 4° 2         | 4°58          | 10°15          | 16° 6          | M10  |
| T 11 | 13 15 49 | 20°50'57         | 19°53          | 10° 8          | 29°46           | 8°18  | 21°32         | 3°43          | 17°19          | 26° 5            | 0°16 | 4° 3         | 4°54          | 10°21          | 16°10          | T 11 |
| W12  | 13 19 45 | 21°49'51         | 3 <b>⋜</b> 44  | 11° 8          | 0耳56            | 8°49  | 21°46         | 3°49          | 17°22          | 26° 7            | 0°16 | 4° 4         | 4°51          | 10°28          | 16°13          | W12  |
| T 13 | 13 23 42 | 22°48'42         | 17°46          | 12° 3          | 2° 6            | 9°20  | 22° 1         | 3°54          | 17°25          | 26° 9            | 0°17 | 4°R 4        | 4°48          | 10°35          | 16°17          | T 13 |
| F 14 | 13 27 38 | 23°47'32         | 1≈57           | 12°51          | 3°16            | 9°52  | 22°15         | 4° 0          | 17°28          | 26°11            | 0°17 | 4° 4         | 4°45          | 10°42          | 16°20          | F 14 |
| S 15 | 13 31 35 | 24°46'20         | 16°16          | 13°34          | 4°25            | 10°23 | 22°30         | 4° 5          | 17°32          | 26°13            | 0°18 | 4° 4         | 4°42          | 10°48          | 16°24          | S 15 |
| S 16 | 13 35 32 | 25°45'06         | 0 <b>)</b> €38 | 14°10          | 5°35            | 10°55 | 22°44         | 4°11          | 17°35          | 26°15            | 0°18 | 4° 3         | 4°39          | 10°55          | 16°27          | S 16 |
| M17  | 13 39 28 | 26°43'51         | 15° 0          | 14°40          | 6°44            | 11°26 | 22°59         | 4°16          | 17°38          | 26°17            | 0°19 | 4° 2         | 4°35          | 11° 2          | 16°31          | M17  |
| T 18 | 13 43 25 | 27°42'34         | 29°19          | 15° 3          | 7°53            | 11°58 | 23°13         | 4°22          | 17°41          | 26°19            | 0°19 | 4° 1         | 4°32          | 11° 9          | 16°34          | T 18 |
| W19  | 13 47 21 | 28°41'15         | 13 <b>Y</b> 29 | 15°21          | 9° 2            | 12°30 | 23°28         | 4°27          | 17°45          | 26°21            | 0°20 | 4° 1         | 4°29          | 11°15          | 16°38          | W19  |
| T 20 | 13 51 18 | 29°39'54         | 27°25          | 15°32          | 10°11           | 13° 2 | 23°42         | 4°32          | 17°48          | 26°23            | 0°20 | 4°D 1        | 4°26          | 11°22          | 16°41          | T 20 |
| F 21 | 13 55 14 | 0 <b>8</b> 38'31 | 118 5          | 15°R37         | 11°20           | 13°34 | 23°57         | 4°37          | 17°51          | 26°25            | 0°20 | 4° 1         | 4°23          | 11°29          | 16°45          | F 21 |
| S 22 | 13 59 11 | 1°37'07          | 24°26          | 15°36          | 12°29           | 14° 6 | 24°11         | 4°42          | 17°55          | 26°27            | 0°20 | 4° 1         | 4°20          | 11°35          | 16°48          | S 22 |
| S 23 | 14 3 7   | 2°35'40          | 7 <b>Ⅲ</b> 27  | 15°30          | 13°37           | 14°39 | 24°25         | 4°47          | 17°58          | 26°29            | 0°21 | 4° 1         | 4°16          | 11°42          | 16°52          | S 23 |
| M24  | 14 7 4   | 3°34'11          | 20°10          | 15°18          | 14°46           | 15°11 | 24°40         | 4°52          | 18° 2          | 26°31            | 0°21 | 4°R 1        | 4°13          | 11°49          | 16°55          | M24  |
| T 25 | 14 11 1  | 4°32'41          | 2935           | 15° 0          | 15°54           | 15°43 | 24°54         | 4°57          | 18° 5          | 26°33            | 0°21 | 4° 1         | 4°10          | 11°56          | 16°58          | T 25 |
| W26  | 14 14 57 | 5°31'08          | 14°46          | 14°39          | 17° 2           | 16°16 | 25° 8         | 5° 2          | 18° 8          | 26°35            | 0°21 | 4° 1         | 4° 7          | 12° 2          | 17° 2          | W26  |
| T 27 | 14 18 54 | 6°29'33          | 26°46          | 14°13          | 18°10           | 16°49 | 25°23         | 5° 6          | 18°12          | 26°37            | 0°22 | 4° 1         | 4° 4          | 12° 9          | 17° 5          | T 27 |
| F 28 | 14 22 50 | 7°27'56          | 8 <b>Ω</b> 41  | 13°43          | 19°18           | 17°21 | 25°37         | 5°11          | 18°15          | 26°38            | 0°22 | 4°D 1        | 4° 0          | 12°16          | 17° 9          | F 28 |
| S 29 | 14 26 47 | 8°26'17          | 20°34          | 13°10          | 20°26           | 17°54 | 25°51         | 5°15          | 18°19          | 26°40            | 0°22 | 4° 1         | 3°57          | 12°22          | 17°12          | S 29 |
| S 30 | 14 30 43 | 9824'35          | 2 Mp 30        | 12835          | 21 <b>II</b> 33 | 18927 | 26 <b>Y</b> 6 | 5 <b>∺</b> 20 | 18822          | 26 <b>) (</b> 42 | 0≈22 | 4 <b>8</b> 1 | 3 <b>8</b> 54 | 12\$\Omega29\$ | 17 <b>Y</b> 15 | S 30 |

| Day  | 0  | D  |   | ğ  | 5  | ç   | 2  | ď  | 1  | 2   | +                                      | ħ   | l.   | )į   | γ(   | 4  | (  | Е  |  | n  | Ω  | ţ   | ķ   |
|--|--|--|---|--|--|---|--|--|--|---|--|---|--|--|--|--|--|--|--|--|--|---|---|
|  | decl   | decl la  | t   | decl   | lat  | decl  | lat  | decl                                     | lat  | decl  | lat                                    | decl                                      | lat  | decl   | lat  | decl   | lat  | decl   | lat  | decl   | decl   | decl  | decl lat  |
| S 1  | 4n21   | 21n59  | 5n10  | 10n40  | 0n57   | 18n 7   | 0n58   | 25n28                                    | 2n 4   | 6n30  | 1 s 4                                  | 11 s45                                    | 1 s20  | 16n33  | 0s19   | 2 s47  | 1 s10  | 22 s29   | 2 s25  | 12n57  | 13n20  | 22n53   | 7n35 1n35   |
| S 2<br>M 3<br>T 4<br>W 5<br>T 6<br>F 7<br>S 8              | 4 44<br>5 8<br>5 31<br>5 53<br>6 16<br>6 39<br>7 1 | 13 13<br>7 53<br>2 11<br>3 s43<br>9 35           | 4 25<br>3 44<br>2 51<br>1 50<br>0 41        | 11 30<br>12 19<br>13 5<br>13 49<br>14 31<br>15 10<br>15 47 | 1 43<br>1 53<br>2 3                          |   | 1 1<br>1 4<br>1 8<br>1 11<br>1 14<br>1 18<br>1 21  | 25 25<br>25 23<br>25 22<br>25 20         | 2 3<br>2 3<br>2 2<br>2 2<br>2 1<br>2 0<br>2 0        | 6 35<br>6 41<br>6 46<br>6 52<br>6 57<br>7 3<br>7 8  | 1 4<br>1 4<br>1 4<br>1 4<br>1 4<br>1 4 | 11 38<br>11 36<br>11 34<br>11 32          | 1 20<br>1 20<br>1 20<br>1 21<br>1 21         |  | 0 19<br>0 19<br>0 19<br>0 19<br>0 19         | 2 46<br>2 45<br>2 44<br>2 43<br>2 42<br>2 42<br>2 41         | 1 10<br>1 10<br>1 10<br>1 10<br>1 10         | 22 29<br>22 29<br>22 29<br>22 29<br>22 29<br>22 29<br>22 29<br>22 29 | 2 25<br>2 26<br>2 26<br>2 26<br>2 26<br>2 26<br>2 26<br>2 26 | 12 54<br>12 53<br>12 52<br>12 52<br>12 51          | 13 18<br>13 17<br>13 16<br>13 15<br>13 14          | 22 51<br>22 50<br>22 48<br>22 46<br>22 44<br>22 42<br>22 42   | 7 36 1 34<br>7 38 1 34<br>7 39 1 34<br>7 40 1 34<br>7 42 1 34<br>7 43 1 34<br>7 44 1 34 |
| S 9<br>M10<br>T 11<br>W12<br>T 13<br>F 14<br>S 15          | 7 24<br>7 46<br>8 8<br>8 30<br>8 52<br>9 14        | 20 6<br>24 7<br>26 50<br>27 56<br>27 16<br>24 51 | 1 42<br>2 49<br>3 47<br>4 33<br>5 4<br>5 16 | 16 21<br>16 52<br>17 20<br>17 46<br>18 8<br>18 27<br>18 43 | 2 22<br>2 30<br>2 37<br>2 44<br>2 49<br>2 54 | 20 57<br>21 16<br>21 34<br>21 52<br>22 10<br>22 27<br>22 43         | 1 24<br>1 27<br>1 31<br>1 34<br>1 37<br>1 40       | 25 13<br>25 11<br>25 8<br>25 6<br>25 3   | 1 59<br>1 58<br>1 58<br>1 57<br>1 57<br>1 56<br>1 55 | 7 14<br>7 19<br>7 24<br>7 30<br>7 35<br>7 41        | 1 4<br>1 4<br>1 4<br>1 4<br>1 4        | 11 28<br>11 26<br>11 24<br>11 22<br>11 21 | 1 21<br>1 21<br>1 21<br>1 22<br>1 22<br>1 22 | 16 40  | 0 19<br>0 19<br>0 19<br>0 19<br>0 19<br>0 19 | 2 40<br>2 39<br>2 38<br>2 37<br>2 37<br>2 36<br>2 35         | 1 10<br>1 11<br>1 11<br>1 11<br>1 11<br>1 11 | 22 29<br>22 29<br>22 29<br>22 29<br>22 29<br>22 29                   | 2 27<br>2 27<br>2 27<br>2 27<br>2 27                         | 12 51<br>12 52<br>12 52<br>12 52<br>12 53<br>12 53 | 13 12<br>13 11<br>13 9<br>13 8<br>13 7<br>13 6     | 22 38<br>22 36<br>22 34<br>3 22 32<br>22 30                   | 7 45 1 34<br>7 47 1 34<br>7 48 1 34<br>7 49 1 34<br>7 51 1 34<br>7 52 1 34<br>7 53 1 34 |
| S 16<br>M17<br>T 18<br>W19<br>T 20<br>F 21<br>S 22         | 10 18<br>10 40<br>11 0<br>11 21<br>11 42           | 9 35<br>3 2<br>3n37<br>9 59<br>15 46             | 3 59<br>3 1<br>1 51<br>0 36<br>0n39         | 18 56<br>19 6<br>19 13<br>19 16<br>19 17<br>19 14<br>19 9  | 3 0<br>3 0<br>2 58<br>2 55<br>2 51           | 22 58<br>23 13<br>23 28<br>23 42<br>23 55<br>24 8<br>24 20          | 1 46<br>1 49<br>1 52<br>1 55<br>1 58<br>2 1<br>2 3 | 24 47<br>24 44<br>24 40<br>24 36         | 1 55<br>1 54<br>1 54<br>1 53<br>1 52<br>1 52<br>1 51 | 7 57<br>8 2   | 1 4<br>1 4<br>1 4<br>1 4<br>1 4        | 11 11<br>11 10<br>11 8<br>11 6            | 1 22<br>1 22<br>1 23<br>1 23<br>1 23         | 16 46<br>16 47<br>16 48<br>16 49<br>16 50<br>16 51<br>16 52          | 0 19<br>0 19<br>0 19<br>0 19<br>0 19         | 2 34<br>2 33<br>2 33<br>2 32<br>2 31<br>2 30<br>2 30         | 1 11<br>1 11<br>1 11<br>1 11<br>1 11         |  |  | 12 52<br>12 52<br>12 51<br>12 51<br>12 51          | 13 3<br>13 2<br>13 1<br>13 0<br>12 59              | 22 24<br>22 22<br>22 20<br>22 18<br>22 16<br>22 14<br>3 22 12 | 7 55 1 34<br>7 56 1 34<br>7 57 1 34<br>7 58 1 33<br>8 0 1 33<br>8 1 1 33<br>8 2 1 33    |
| S 23<br>M24<br>T 25<br>W26<br>T 27<br>F 28<br>S 29<br>S 30 | 12 42<br>13 2<br>13 22<br>13 41<br>14 0<br>14 19   | 26 53 27 55 27 35 25 56 23 10 19 26              | 4 30<br>4 59<br>5 14<br>5 16<br>5 4         | 19 0<br>18 49<br>18 34<br>18 18<br>17 58<br>17 36<br>17 13 | 2 30<br>2 20<br>2 9<br>1 57<br>1 44<br>1 30  | 24 31<br>24 42<br>24 52<br>25 1<br>25 10<br>25 18<br>25 26<br>25n33 | 2 6<br>2 9<br>2 11<br>2 14<br>2 16<br>2 18<br>2 21 | 24 24<br>24 19<br>24 15<br>24 10<br>24 5 | 1 51<br>1 50<br>1 49<br>1 49<br>1 48<br>1 48<br>1 47 | 8 29<br>8 34<br>8 39<br>8 44<br>8 50<br>8 55<br>9 0 | 1 4<br>1 4                             | 11 1<br>11 0<br>10 58<br>10 57            | 1 24<br>1 24<br>1 24<br>1 24<br>1 24<br>1 24 | 16 53<br>16 54<br>16 55<br>16 56<br>16 57<br>16 58<br>16 59<br>17n 0 | 0 19<br>0 19<br>0 19<br>0 19<br>0 19<br>0 19 | 2 29<br>2 28<br>2 27<br>2 27<br>2 26<br>2 25<br>2 25<br>2 25 | 1 11<br>1 11                                 | 22 30<br>22 30   | 2 29<br>2 30<br>2 30   | 12 51<br>12 51<br>12 51<br>12 51<br>12 51<br>12 51 | 12 56<br>12 54<br>12 53<br>12 52<br>12 51<br>12 50 | 5 22 8<br>5 22 6<br>6 22 4<br>2 22 2                          | 8 5 1 33<br>8 6 1 33<br>8 7 1 33<br>8 9 1 33<br>8 10 1 33<br>8 11 1 33                  |

Julian Day Number = 2460035.5, Delta T = 69.16 sec Ecliptic obliquity =  $23^{\circ}26'19$ , Nutation = -  $0^{\circ}00'10$ , out-of-bounds declination in red Ayanamsha: Fagan/Bradley =  $25^{\circ}03'54$ , Lahiri =  $24^{\circ}10'55$ 

MAY 2023 00:00 UT

| Day  | Sid.t    | 0                | D               | ğ      | φ               | ð             | 4              | ħ              | )Å(           | ¥               | Р     | R             | v             | Ç              | Š,             | Day  |
|------|----------|------------------|-----------------|--------|-----------------|---------------|----------------|----------------|---------------|-----------------|-------|---------------|---------------|----------------|----------------|------|
| M 1  | 14 34 40 | 10822'52         | 14 <b>m</b> /34 | 11°R57 | 22 <b>II</b> 40 | 1995 0        | 26 <b>Y</b> 20 | 5 <b>)</b> (24 | 18826         | 26 <b>)</b> (44 | 0≈22  | 4 <b>8</b> 2  | 3 <b>8</b> 51 | 12 <b>Ω</b> 36 | 17 <b>Y</b> 19 | M 1  |
| T 2  | 14 38 36 | 11°21'07         | 26°49           | 11819  | 23°48           | 19°33         | 26°34          | 5°29           | 18°29         | 26°46           | 0°R22 | 4° 2          | 3°48          | 12°43          | 17°22          | T 2  |
| W 3  | 14 42 33 | 12°19'19         | 9 <b>₾</b> 19   | 10°40  | 24°55           | 20° 6         | 26°48          | 5°33           | 18°32         | 26°47           | 0°22  | 4° 3          | 3°45          | 12°49          | 17°25          | W 3  |
| T 4  | 14 46 30 | 13°17'30         | 22° 6           | 10° 2  | 26° 1           | 20°39         | 27° 2          | 5°37           | 18°36         | 26°49           | 0°22  | 4° 4          | 3°41          | 12°56          | 17°28          | T 4  |
| F 5  | 14 50 26 | 14°15'39         | 5 <b>M</b> 12   | 9°24   | 27° 8           | 21°12         | 27°17          | 5°41           | 18°39         | 26°51           | 0°22  | 4°R 4         | 3°38          | 13° 3          | 17°32          | F 5  |
| S 6  | 14 54 23 | 15°13'46         | 18°35           | 8°48   | 28°14           | 21°45         | 27°31          | 5°45           | 18°43         | 26°52           | 0°22  | 4° 4          | 3°35          | 13°10          | 17°35          | S 6  |
| S 7  | 14 58 19 | 16°11'52         | 2 <b>₹</b> 16   | 8°14   | 29°20           | 22°19         | 27°45          | 5°49           | 18°46         | 26°54           | 0°21  | 4° 3          | 3°32          | 13°16          | 17°38          | S 7  |
| M 8  | 15 2 16  | 17° 9'56         | 1 <u>6</u> °10  | 7°43   | 0ණ26            | 22°52         | 27°59          | 5°53           | 18°50         | 26°56           | 0°21  | 4° 1          | 3°29          | 13°23          | 17°41          | M 8  |
| T 9  | 15 6 12  | 18° 7'59         | 0 <b>궁</b> 16   | 7°15   | 1°32            | 23°26         | 28°13          | 5°57           | 18°53         | 26°57           | 0°21  | 4° 0          | 3°26          | 13°30          | 17°44          | T 9  |
| W10  | 15 10 9  | 19° 6'00         | 14°29           | 6°50   | 2°38            | 23°59         | 28°27          | 6° 0           | 18°57         | 26°59           | 0°21  | 3°58          | 3°22          | 13°36          | 17°48          | W10  |
| T 11 | 15 14 5  | 20° 4'00         | 28°45           | 6°30   | 3°43            | 24°33         | 28°41          | 6° 4           | 19° 0         | 27° 0           | 0°21  | 3°56          | 3°19          | 13°43          | 17°51          | T 11 |
| F 12 | 15 18 2  | 21° 1'58         | 13≈ 2           | 6°13   | 4°48            | 25° 6         | 28°55          | 6° 7           | 19° 4         | 27° 2           | 0°20  | 3°56          | 3°16          | 13°50          | 17°54          | F 12 |
| S 13 | 15 21 59 | 21°59'55         | 27°15           | 6° 1   | 5°53            | 25°40         | 29° 9          | 6°11           | 19° 7         | 27° 3           | 0°20  | 3°D55         | 3°13          | 13°57          | 17°57          | S 13 |
| S 14 | 15 25 55 | 22°57'51         | 11 <b>米</b> 23  | 5°54   | 6°58            | 26°14         | 29°23          | 6°14           | 19°11         | 27° 5           | 0°20  | 3°56          | 3°10          | 14° 3          | 18° 0          | S 14 |
| M15  | 15 29 52 | 23°55'46         | 25°24           | 5°D51  | 8° 2            | 26°48         | 29°36          | 6°17           | 19°14         | 27° 6           | 0°19  | 3°57          | 3° 6          | 14°10          | 18° 3          | M15  |
| T 16 | 15 33 48 | 24°53'39         | 9 <b>Υ</b> 16   | 5°53   | 9° 6            | 27°22         | 29°50          | 6°21           | 19°18         | 27° 8           | 0°19  | 3°59          | 3° 3          | 14°17          | 18° 6          | T 16 |
| W17  | 15 37 45 | 25°51'31         | 22°58           | 5°59   | 10°10           | 27°56         | 0 <b>8</b> 4   | 6°24           | 19°21         | 27° 9           | 0°19  | 4° 0          | 3° 0          | 14°23          | 18° 9          | W17  |
| T 18 | 15 41 41 | 26°49'22         | 6 <b>8</b> 28   | 6°10   | 11°14           | 28°30         | 0°17           | 6°27           | 19°25         | 27°11           | 0°18  | 4°R 0         | 2°57          | 14°30          | 18°12          | T 18 |
| F 19 | 15 45 38 | 27°47'12         | 19°45           | 6°25   | 12°17           | 29° 4         | 0°31           | 6°30           | 19°28         | 27°12           | 0°18  | 3°59          | 2°54          | 14°37          | 18°15          | F 19 |
| S 20 | 15 49 34 | 28°45'00         | 2∏49            | 6°45   | 13°21           | 29°38         | 0°45           | 6°32           | 19°31         | 27°13           | 0°17  | 3°57          | 2°51          | 14°44          | 18°17          | S 20 |
| S 21 | 15 53 31 | 29°42'47         | 15°37           | 7° 9   | 14°24           | 0Ω12          | 0°58           | 6°35           | 19°35         | 27°14           | 0°17  | 3°54          | 2°47          | 14°50          | 18°20          | S 21 |
| M22  | 15 57 28 | 0 <b>Ⅱ</b> 40'32 | 28°12           | 7°38   | 15°26           | 0°46          | 1°12           | 6°38           | 19°38         | 27°16           | 0°16  | 3°50          | 2°44          | 14°57          | 18°23          | M22  |
| T 23 | 16 1 24  | 1°38'16          | 10933           | 8°10   | 16°28           | 1°21          | 1°25           | 6°40           | 19°42         | 27°17           | 0°16  | 3°45          | 2°41          | 15° 4          | 18°26          | T 23 |
| W24  | 16 5 21  | 2°35'59          | 22°42           | 8°47   | 17°31           | 1°55          | 1°39           | 6°43           | 19°45         | 27°18           | 0°15  | 3°41          | 2°38          | 15°10          | 18°29          | W24  |
| T 25 | 16 9 17  | 3°33'40          | 4Ω42            | 9°27   | 18°32           | 2°29          | 1°52           | 6°45           | 19°49         | 27°19           | 0°14  | 3°37          | 2°35          | 15°17          | 18°31          | T 25 |
| F 26 | 16 13 14 | 4°31'19          | 16°36           | 10°11  | 19°34           | 3° 4          | 2° 5           | 6°47           | 19°52         | 27°21           | 0°14  | 3°34          | 2°32          | 15°24          | 18°34          | F 26 |
| S 27 | 16 17 10 | 5°28'57          | 28°28           | 10°59  | 20°35           | 3°38          | 2°18           | 6°49           | 19°55         | 27°22           | 0°13  | 3°33          | 2°28          | 15°31          | 18°37          | S 27 |
| S 28 | 16 21 7  | 6°26'34          | 10 <b>m</b> 24  | 11°50  | 21°35           | 4°13          | 2°32           | 6°52           | 19°59         | 27°23           | 0°12  | 3°D32         | 2°25          | 15°37          | 18°39          | S 28 |
| M29  | 16 25 4  | 7°24'09          | 22°27           | 12°45  | 22°36           | 4°48          | 2°45           | 6°53           | 20° 2         | 27°24           | 0°12  | 3°33          | 2°22          | 15°44          | 18°42          | M29  |
| T 30 | 16 29 0  | 8°21'42          | 4 <b>Ω</b> 42   | 13°43  | 23°36           | 5°22          | 2°58           | 6°55           | 20° 5         | 27°25           | 0°11  | 3°35          | 2°19          | 15°51          | 18°44          | T 30 |
| W31  | 16 32 57 | 9∏19'14          | 17 <b>≏</b> 15  | 14845  | 24935           | 5 <b>Ω</b> 57 | 3 <b>8</b> 11  | 6 <b>¥</b> 57  | 20 <b>8</b> 9 | 27 <b>米</b> 26  | 0≈10  | 3 <b>8</b> 37 | 2816          | 15 <b>Ω</b> 58 | 18 <b>Ƴ</b> 47 | W31  |

| Day  | 0                                | D  | ğ  | Q   | ď   |   | 4  | ħ   |                                      | )ֈֈ   | (  | <del>¥</del>  | Р  | រា  | Ω   | Ç   | ę,  |
|--|----------------------------------|--|--|---|---|---|--|---|--------------------------------------|---|--|---|--|---|---|---|---|
|  | decl                             | decl lat   | decl la  | at decl la  | t decl l  | at de   | cl lat   | decl l                                    | at                                   | decl  | lat  | decl lat  | decl lat   | decl  | decl                                      | decl                                      | decl lat  |
| M 1<br>T 2<br>W 3                                  | 14n56<br>15 14<br>15 32          | _  | 15 53  | 0 42 25 45 2  | 2 27 23 45  | 1n46 9n<br>1 45 9<br>1 45 9   | 15 1 4   | 10 49                                     | 1 s25<br>1 25<br>1 25                | 17 2  | 0s19<br>0 19<br>0 19                                 | 2 23 1 11   | 22 31 2 30   | 12n52<br>12 52<br>12 52                                     | 12 47                                     | 21 52                                     | 8n14 1n33<br>8 15 1 33<br>8 16 1 33   |
| T 4<br>F 5<br>S 6                                  |                                  |  | 14 28  | 0s10 25 57 2  | 2 33 23 28  | 1 44 9<br>1 44 9<br>1 43 9  | 31 1 4   | 10 45                                     | -                                    | 17 3<br>17 4<br>17 5  | 0 19<br>0 19<br>0 19                                 | 2 21 1 11   | 22 31 2 31   | 12 52<br>12 52<br>12 52                                     | 12 44                                     | 21 46                                     | 8 17 1 33<br>8 19 1 33<br>8 20 1 33   |
| S 7<br>M 8<br>T 9<br>W10<br>T 11<br>F 12<br>S 13   | 16 58<br>17 14<br>17 30<br>17 45 | 26 14 3 32<br>27 49 4 23<br>27 35 4 57<br>25 32 5 14<br>21 52 5 11 | 13 7<br>12 43<br>12 20<br>12 0<br>11 41            | 1 1 26 4 2<br>1 17 26 5 2<br>1 33 26 5 2<br>1 47 26 5 2<br>2 1 26 4 2       | 2 38 23 10<br>2 39 23 4<br>2 40 22 58<br>2 42 22 51<br>2 43 22 45 | 1 42 9<br>1 42 9<br>1 41 9<br>1 41 9<br>1 40 10<br>1 40 10<br>1 39 10     | 46 1 4<br>51 1 4<br>56 1 4<br>1 1 4<br>5 1 4   | 10 41<br>10 40<br>10 39<br>10 38<br>10 37 | 1 26<br>1 27<br>1 27<br>1 27         | 17 7<br>17 8  | 0 19<br>0 19<br>0 19<br>0 19<br>0 19<br>0 19<br>0 19 | 2 19 1 11<br>2 18 1 11<br>2 18 1 11<br>2 17 1 12<br>2 16 1 12 | 22 32 2 31<br>22 32 2 31<br>22 32 2 31<br>22 32 2 31<br>22 33 2 32<br>22 33 2 32 | 12 52<br>12 52<br>12 51<br>12 50<br>12 50<br>12 50<br>12 50 | 12 40<br>12 39<br>12 38<br>12 37<br>12 36 | 21 39<br>21 37<br>21 35<br>21 33<br>21 31 | 8 21 1 33<br>8 22 1 33<br>8 23 1 33<br>8 25 1 33<br>8 26 1 33<br>8 27 1 33<br>8 28 1 33 |
| S 14<br>M15<br>T 16<br>W17<br>T 18<br>F 19<br>S 20 | 18 45<br>18 59<br>19 13<br>19 27 | 4 50 3 17<br>1n39 2 12<br>8 0 1 0<br>13 53 0n14<br>19 3 1 26       | 11 0 1<br>10 51 1<br>10 44 1<br>10 40 1<br>10 38 1 | 2 37 25 57 2<br>2 48 25 53 2<br>2 57 25 49 2<br>3 5 25 44 2<br>3 12 25 39 2 | 2 46 22 24<br>2 46 22 17<br>2 47 22 9<br>2 47 22 2<br>2 48 21 54  | 1 38 10<br>1 38 10<br>1 37 10<br>1 37 10<br>1 36 10<br>1 36 10<br>1 35 10 | 20 1 4<br>25 1 4<br>29 1 4<br>34 1 4<br>39 1 4 | 10 33<br>10 32<br>10 31<br>10 30          | 1 28<br>1 28<br>1 28<br>1 28<br>1 28 | 17 15<br>17 16  | 0 19<br>0 19<br>0 19<br>0 19<br>0 19<br>0 19<br>0 19 | 2 15 1 12<br>2 14 1 12<br>2 14 1 12<br>2 13 1 12<br>2 13 1 12 | 22 34 2 32<br>22 34 2 32<br>22 34 2 33<br>22 34 2 33<br>22 35 2 33               | 12 50<br>12 50<br>12 51<br>12 51<br>12 51<br>12 51<br>12 50 | 12 33<br>12 32<br>12 31<br>12 30<br>12 29 | 21 24<br>21 22<br>21 20<br>21 18<br>21 16 | 8 29 1 33<br>8 30 1 33<br>8 31 1 33<br>8 33 1 33<br>8 34 1 33<br>8 35 1 33<br>8 36 1 33 |
|  | 20 17<br>20 29<br>20 41<br>20 52 | 27 40 4 14<br>27 48 4 47<br>26 34 5 7<br>24 8 5 12<br>20 42 5 4    | 10 47 1 10 54 1 11 3 1 11 15 1 11 28 1             | 3 27 25 19 2<br>3 31 25 12 2<br>3 33 25 3 2<br>3 35 24 55 2<br>3 35 24 45 2 | 2 48 21 31<br>2 48 21 23<br>2 47 21 14<br>2 47 21 6<br>2 46 20 57 | 1 34 10<br>1 34 10<br>1 33 10<br>1 33 11<br>1 32 11<br>1 32 11<br>1 31 11 | 53 1 4<br>58 1 5<br>2 1 5<br>7 1 5<br>11 1 5   | 10 27<br>10 27<br>10 26<br>10 25<br>10 25 | 1 29<br>1 29<br>1 29<br>1 30<br>1 30 | 17 20<br>17 21<br>17 22<br>17 22<br>17 23<br>17 24<br>17 25 | 0 19<br>0 19<br>0 19<br>0 19<br>0 19<br>0 19<br>0 19 | 2 11 1 12<br>2 11 1 12<br>2 10 1 12<br>2 10 1 12<br>2 10 1 12 | 22 35 2 33<br>22 36 2 34<br>22 36 2 34<br>22 36 2 34<br>22 36 2 34               | 12 49<br>12 48<br>12 46<br>12 45<br>12 43<br>12 42<br>12 42 | 12 25<br>12 24<br>12 23<br>12 22<br>12 21 | 21 9<br>21 7<br>21 5<br>21 3<br>21 0      | 8 37 1 33<br>8 38 1 32<br>8 39 1 32<br>8 40 1 32<br>8 41 1 32<br>8 42 1 32<br>8 43 1 32 |
| M29<br>T 30  | 21 23<br>21 33<br>21 42<br>21n51 | 6 9 3 26<br>0 26 2 31  | 12 17<br>12 37                                     | 3 32 24 14 2<br>3 30 24 3 2   | 2 44 20 31<br>2 42 20 22  | 1 31 11<br>1 30 11<br>1 29 11<br>1n29 11n                                 | 24 1 5<br>29 1 5                               | 10 23                                     | 1 31<br>1 31                         | 17 26<br>17 27<br>17 28<br>17n29                            | 0 19<br>0 19<br>0 19<br>0 s19                        | 2 8 1 12<br>2 8 1 12  | 22 37 2 34<br>22 38 2 35   | 12 42<br>12 42<br>12 43<br>12n43                            | 12 18<br>12 17                            | 20 54<br>20 51                            | 8 44 1 32<br>8 45 1 32<br>8 46 1 32<br>8n47 1n32  |

Julian Day Number = 2460065.5, Delta T = 69.15 sec Ecliptic obliquity =  $23^{\circ}26'18$ , Nutation = -  $0^{\circ}00'10$ , out-of-bounds declination in red Ayanamsha: Fagan/Bradley =  $25^{\circ}03'58$ , Lahiri =  $24^{\circ}10'59$ 

JUNE 2023 00:00 UT

| Day  | Sid.t    | 0                 | D              | ğ              | φ             | ð              | 4             | ħ             | )∤(   | 卉                | В              | n             | v             | Ç              | , k            | Day  |
|------|----------|-------------------|----------------|----------------|---------------|----------------|---------------|---------------|-------|------------------|----------------|---------------|---------------|----------------|----------------|------|
| T 1  | 16 36 53 | 10 <b>Ⅱ</b> 16'45 | OM 8           | 15 <b>8</b> 49 | 25935         | 6 <b>Ω</b> 32  | 3 <b>8</b> 24 | 6 <b>¥</b> 59 | 20812 | 27 <b>) (</b> 27 | 0°R 9          | 3°R37         | 2812          | 16 <b>Ω</b> 4  | 18 <b>Y</b> 49 | T 1  |
| F 2  | 16 40 50 | 11°14'15          | 13°24          | 16°57          | 26°33         | 7° 7           | 3°37          | 7° 0          | 20°15 | 27°28            | 0≈ 9           | 3 <b>8</b> 37 | 2° 9          | 16°11          | 18°52          | F 2  |
| S 3  | 16 44 46 | 12°11'43          | 27° 4          | 18° 8          | 27°32         | 7°41           | 3°49          | 7° 2          | 20°19 | 27°29            | 0° 8           | 3°35          | 2° 6          | 16°18          | 18°54          | S 3  |
| S 4  | 16 48 43 | 13° 9'11          | 11 <b>~</b> 7  | 19°21          | 28°30         | 8°16           | 4° 2          | 7° 3          | 20°22 | 27°30            | 0° 7           | 3°31          | 2° 3          | 16°24          | 18°57          | S 4  |
| M 5  | 16 52 39 | 14° 6'38          | 25°27          | 20°38          | 29°27         | 8°51           | 4°15          | 7° 5          | 20°25 | 27°30            | 0° 6           | 3°26          | 2° 0          | 16°31          | 18°59          | M 5  |
| T 6  | 16 56 36 | 15° 4'03          | 10ට 1          | 21°58          | 0 <b>Ω</b> 24 | 9°26           | 4°27          | 7° 6          | 20°28 | 27°31            | 0° 5           | 3°20          | 1°57          | 16°38          | 19° 1          | T 6  |
| W 7  | 17 0 33  | 16° 1'28          | 24°41          | 23°20          | 1°21          | 10° 1          | 4°40          | 7° 7          | 20°32 | 27°32            | 0° 4           | 3°14          | 1°53          | 16°45          | 19° 4          | W 7  |
| T 8  | 17 4 29  | 16°58'52          | 9≈20           | 24°46          | 2°17          | 10°36          | 4°53          | 7°8           | 20°35 | 27°33            | 0° 3           | 3° 8          | 1°50          | 16°51          | 19° 6          | T 8  |
| F 9  | 17 8 26  | 17°56'16          | 23°52          | 26°14          | 3°13          | 11°12          | 5° 5          | 7° 9          | 20°38 | 27°33            | 0° 2           | 3° 4          | 1°47          | 16°58          | 19°8           | F 9  |
| S 10 | 17 12 22 | 18°53'38          | 8 <b>∺</b> 12  | 27°45          | 4° 8          | 11°47          | 5°17          | 7°10          | 20°41 | 27°34            | 0° 1           | 3° 2          | 1°44          | 17° 5          | 19°10          | S 10 |
| S 11 | 17 16 19 | 19°51'01          | 22°17          | 29°18          | 5° 2          | 12°22          | 5°30          | 7°10          | 20°44 | 27°35            | 0° 0           | 3°D 2         | 1°41          | 17°11          | 19°12          | S 11 |
| M12  | 17 20 15 | 20°48'22          | 6 <b>℃</b> 7   | 0耳55           | 5°56          | 12°57          | 5°42          | 7°11          | 20°47 | 27°35            | 29 <b>궁</b> 59 | 3° 2          | 1°38          | 17°18          | 19°14          | M12  |
| T 13 | 17 24 12 | 21°45'44          | 19°41          | 2°34           | 6°50          | 13°33          | 5°54          | 7°12          | 20°51 | 27°36            | 29°58          | 3° 3          | 1°34          | 17°25          | 19°16          | T 13 |
| W14  | 17 28 8  | 22°43'05          | 3 <b>8</b> 2   | 4°16           | 7°43          | 14° 8          | 6° 6          | 7°12          | 20°54 | 27°37            | 29°57          | 3°R 4         | 1°31          | 17°32          | 19°18          | W14  |
| T 15 | 17 32 5  | 23°40'25          | 16° 9          | 6° 1           | 8°35          | 14°43          | 6°18          | 7°12          | 20°57 | 27°37            | 29°56          | 3° 3          | 1°28          | 17°38          | 19°20          | T 15 |
| F 16 | 17 36 2  | 24°37'45          | 29° 4          | 7°48           | 9°26          | 15°19          | 6°30          | 7°12          | 21° 0 | 27°38            | 29°55          | 3° 0          | 1°25          | 17°45          | 19°22          | F 16 |
| S 17 | 17 39 58 | 25°35'05          | 11 <b>Ⅱ</b> 47 | 9°38           | 10°17         | 15°54          | 6°41          | 7°13          | 21° 3 | 27°38            | 29°54          | 2°55          | 1°22          | 17°52          | 19°24          | S 17 |
| S 18 | 17 43 55 | 26°32'24          | 24°20          | 11°30          | 11° 8         | 16°30          | 6°53          | 7°R13         | 21° 6 | 27°39            | 29°53          | 2°48          | 1°18          | 17°58          | 19°26          | S 18 |
| M19  | 17 47 51 | 27°29'42          | 69542          | 13°25          | 11°57         | 17° 5          | 7° 5          | 7°13          | 21° 9 | 27°39            | 29°52          | 2°38          | 1°15          | 18° 5          | 19°27          | M19  |
| T 20 | 17 51 48 | 28°27'00          | 18°54          | 15°22          | 12°46         | 17°41          | 7°16          | 7°12          | 21°12 | 27°39            | 29°51          | 2°28          | 1°12          | 18°12          | 19°29          | T 20 |
| W21  | 17 55 44 | 29°24'17          | 0 <b>Ω</b> 58  | 17°22          | 13°34         | 18°17          | 7°28          | 7°12          | 21°15 | 27°40            | 29°49          | 2°18          | 1° 9          | 18°19          | 19°31          | W21  |
| T 22 | 17 59 41 | 0921'34           | 12°55          | 19°24          | 14°22         | 18°53          | 7°39          | 7°12          | 21°18 | 27°40            | 29°48          | 2° 8          | 1° 6          | 18°25          | 19°32          | T 22 |
| F 23 | 18 3 37  | 1°18'50           | 24°47          | 21°27          | 15° 8         | 19°28          | 7°50          | 7°11          | 21°20 | 27°40            | 29°47          | 2° 1          | 1° 3          | 18°32          | 19°34          | F 23 |
| S 24 | 18 7 34  | 2°16'05           | 6 <b>m</b> 37  | 23°33          | 15°54         | 20° 4          | 8° 2          | 7°11          | 21°23 | 27°40            | 29°46          | 1°55          | 0°59          | 18°39          | 19°35          | S 24 |
| S 25 | 18 11 31 | 3°13'20           | 18°31          | 25°40          | 16°39         | 20°40          | 8°13          | 7°10          | 21°26 | 27°41            | 29°45          | 1°52          | 0°56          | 18°46          | 19°37          | S 25 |
| M26  | 18 15 27 | 4°10'34           | 0 <b>ჲ</b> 32  | 27°48          | 17°22         | 21°16          | 8°24          | 7° 9          | 21°29 | 27°41            | 29°43          | 1°D51         | 0°53          | 18°52          | 19°38          | M26  |
| T 27 | 18 19 24 | 5° 7'47           | 12°45          | 29°58          | 18° 5         | 21°52          | 8°34          | 7° 8          | 21°32 | 27°41            | 29°42          | 1°51          | 0°50          | 18°59          | 19°40          | T 27 |
| W28  | 18 23 20 | 6° 5'00           | 25°15          | 295 8          | 18°47         | 22°28          | 8°45          | 7° 7          | 21°34 | 27°41            | 29°41          | 1°R52         | 0°47          | 19° 6          | 19°41          | W28  |
| T 29 | 18 27 17 | 7° 2'13           | 8 <b>M</b> 8   | 4°19           | 19°28         | 23° 4          | 8°56          | 7° 6          | 21°37 | 27°41            | 29°40          | 1°52          | 0°44          | 19°12          | 19°42          | T 29 |
| F 30 | 18 31 13 | 7959'25           | 21 <b>M</b> 27 | 6930           | 20 <b>N</b> 8 | 23 <b>Ω</b> 40 | 9 <b>8</b> 6  | 7 <b>∺</b> 5  | 21840 | 27 <b>)</b> (41  | 29 <b>궁</b> 38 | 1850          | 0 <b>8</b> 40 | 19 <b>Ω</b> 19 | 19 <b>Ƴ</b> 43 | F 30 |

| Day  | 0  | D   | ζ   | 2  | φ   | ♂   | 1                                    | 2  | +                               | ŧ   | l                                    | )   | ţ(                                   | <del>\</del>                              |                                      | Р  |   | n   | v                                      | Ç  | ď   | ;  |
|--|--|---|---|--|---|---|--------------------------------------|--|---------------------------------|---|--------------------------------------|---|--------------------------------------|---|--------------------------------------|--|---|---|--|--|---|--|
|  | decl   | decl lat  | decl  | lat o  | decl lat  | decl l                                    | lat                                  | decl   | lat                             | decl  | lat                                  | decl  | lat                                  | decl lat                                  | t                                    | decl   | lat   | decl                                      | decl                                   | decl   | decl  | lat  |
| T 1<br>F 2<br>S 3                                  | 21n59<br>22 7<br>22 15                             | 16 42 0s5   |   | 3 18 23  | 26 2 38   | 19 55                                     | 1 28                                 | 11n38<br>11 42<br>11 46                            | 1 5                             | 10 s22<br>10 21<br>10 21                                    | 1 31                                 | 17n30<br>17 31<br>17 31                                     | 0 19                                 | 2 7 1                                     | 1 12                                 | 22 s38<br>22 39<br>22 39                                     | 2 35  | 12 43                                     | 12n14<br>12 13<br>12 12                |  | 8n48<br>8 49<br>8 50                              | 1n32<br>1 32<br>1 32                                 |
| S 4<br>M 5<br>T 6<br>W 7<br>T 8                    | 22 36<br>22 42                                     | 27 25 4<br>27 46 4 4<br>26 11 5                             | 9 14 33<br>4 15 0<br>4 15 27<br>5 15 55<br>7 16 23                        | 3 1 22<br>2 54 22<br>2 47 22<br>2 39 22            | 2 45 2 32<br>2 30 2 30<br>2 15 2 27<br>2 0 2 25               | 19 26<br>19 16<br>19 6<br>18 56           | 1 26<br>1 26<br>1 25<br>1 24         | 11 59<br>12 3<br>12 7                              | 1 5<br>1 5<br>1 6<br>1 6<br>1 6 | 10 20<br>10 20  | 1 32<br>1 32<br>1 33<br>1 33         | 17 32<br>17 33<br>17 34<br>17 35<br>17 36                   | 0 19<br>0 19<br>0 19<br>0 19         | 2 6 1<br>2 6 1<br>2 6 1                   | 1 13                                 | 22 40<br>22 40<br>22 40                                      | 2 35<br>2 36<br>2 36                          | 12 40                                     | 12 10<br>12 9<br>12 8                  | 20 40<br>20 38<br>20 36<br>20 33<br>20 31          | 8 51<br>8 52<br>8 52<br>8 53<br>8 54              | 1 32<br>1 32<br>1 32<br>1 32<br>1 32                 |
| F 9<br>S 10  | 22 58  | 12 24 4 1   | 9 16 52<br>3 17 21  | 2 21 21  | 28 2 19   | 18 35                                     | 1 23                                 | 12 11<br>12 15                                     | 1 6                             | 10 19<br>10 19  | 1 33                                 | 17 37<br>17 37  | 0 19                                 | 2 5 1                                     | 1 13                                 | 22 41<br>22 41   | 2 36  | 12 32<br>12 31                            | 12 5                                   | 20 29<br>20 26                                     | 8 55<br>8 56                                      | 1 32<br>1 32   |
| S 11<br>M12<br>T 13<br>W14<br>T 15<br>F 16<br>S 17 | 23 17<br>23 20                                     | 0n17 2 2 2 6 36 1 1 12 31 0 17 47 1n1 22 9 2 1              | 2 17 51<br>0 18 21<br>1 18 50<br>0 19 20<br>0 19 49<br>5 20 17<br>2 20 45 | 1 52 20<br>1 42 20<br>1 31 20<br>1 20 19           | 0 55 2 12<br>0 38 2 9<br>0 21 2 5<br>0 3 2 1<br>0 46 1 57     | 18 14<br>18 4<br>17 53<br>17 42<br>17 31  | 1 22<br>1 22<br>1 21<br>1 21<br>1 20 |  | 1 6<br>1 6<br>1 6<br>1 6<br>1 6 | 10 19<br>10 19<br>10 19                                     | 1 34<br>1 34<br>1 34<br>1 34<br>1 35 | 17 38<br>17 39<br>17 40<br>17 41<br>17 42<br>17 42<br>17 43 | 0 19<br>0 19<br>0 19<br>0 19<br>0 19 | 2 4 1<br>2 4 1<br>2 4 1<br>2 4 1<br>2 4 1 | 1 13<br>1 13<br>1 13<br>1 13<br>1 13 | 22 42<br>22 42<br>22 42<br>22 43<br>22 43<br>22 43<br>22 44  | 2 36<br>2 37<br>2 37<br>2 37<br>2 37          | 12 32<br>12 31                            | 12 2<br>12 1<br>12 0<br>11 59<br>11 58 |  | 8 57<br>8 57<br>8 58<br>8 59<br>9 0<br>9 0<br>9 1 | 1 32<br>1 32<br>1 32<br>1 32<br>1 32<br>1 32<br>1 32 |
| S 18<br>M19<br>T 20<br>W21<br>T 22<br>F 23<br>S 24 | 23 26<br>23 26<br>23 26                            | 27 50 4 3<br>26 59 4 5<br>24 53 5<br>21 43 4 5<br>17 40 4 4 | 9 21 12<br>4 21 38<br>6 22 3<br>4 22 27<br>9 22 48<br>1 23 8<br>1 23 26   | 0 47 18<br>0 35 18<br>0 24 18<br>0 12 17<br>0 1 17 | 3 51 1 43<br>3 32 1 38<br>3 14 1 32<br>7 55 1 27<br>7 35 1 21 | 16 58<br>16 46<br>16 35<br>16 23<br>16 11 | 1 18<br>1 18<br>1 17<br>1 17<br>1 16 |  | 1 7<br>1 7<br>1 7<br>1 7<br>1 7 | 10 20<br>10 20<br>10 20<br>10 21<br>10 21<br>10 21<br>10 22 | 1 35<br>1 35<br>1 36<br>1 36<br>1 36 | 17 44<br>17 45<br>17 45<br>17 46<br>17 47<br>17 48<br>17 48 | 0 19<br>0 19<br>0 19<br>0 19<br>0 19 | 2 3 1<br>2 3 1<br>2 3 1<br>2 3 1<br>2 3 1 | 1 13 1<br>1 13 1<br>1 13 1<br>1 13 1 | 22 44<br>22 45<br>22 45<br>22 45<br>22 46<br>22 46<br>22 46  | 2 37<br>2 38<br>2 38<br>2 38                  | 12 23<br>12 20<br>12 16<br>12 13<br>12 10 | 11 50                                  | 20 5<br>20 3                                       | 9 2<br>9 2<br>9 3<br>9 4<br>9 4<br>9 5<br>9 5     | 1 32<br>1 32<br>1 32<br>1 32<br>1 33<br>1 33<br>1 33 |
| S 25<br>M26<br>T 27<br>W28<br>T 29<br>F 30         | 23 24<br>23 22<br>23 20<br>23 18<br>23 15<br>23n12 | 2 13 2 3<br>3 s 30 1 4<br>9 14 0 3<br>14 45 0 s 3           | 0 23 42<br>9 23 56<br>0 24 7<br>5 24 15<br>3 24 21<br>2 24n24             | 0 41 16<br>0 50 15<br>0 59 15                      | 5 37 1 3<br>5 18 0 56<br>5 58 0 49<br>5 39 0 42               | 15 35<br>15 23<br>15 11<br>14 59          | 1 15<br>1 14<br>1 14<br>1 13         | 13 11<br>13 14<br>13 17<br>13 21<br>13 24<br>13n27 | 1 8                             | 10 23   | 1 37<br>1 37<br>1 37<br>1 37         | 17 49<br>17 50<br>17 51<br>17 51<br>17 52<br>17n53          | 0 19<br>0 19<br>0 19<br>0 19         | 2 3 1<br>2 3 1<br>2 3 1<br>2 3 1          | 1 14<br>1 14<br>1 14<br>1 14         | 22 47<br>22 47<br>22 48<br>22 48<br>22 48<br>22 48<br>22 s49 | 2 38<br>2 38<br>2 38<br>2 39<br>2 39<br>2 s39 | 12 7<br>12 7<br>12 7<br>12 7              | 11 46<br>11 45<br>11 44                | 19 51<br>19 49<br>19 46<br>19 44<br>19 42<br>19n39 | 9 6<br>9 7<br>9 7<br>9 8<br>9 8<br>9n 9           | 1 33<br>1 33<br>1 33<br>1 33<br>1 33<br>1 n33        |

Julian Day Number = 2460096.5, Delta T = 69.15 sec Ecliptic obliquity =  $23^{\circ}26'18$ , Nutation = -  $0^{\circ}00'10$ , out-of-bounds declination in red Ayanamsha: Fagan/Bradley =  $25^{\circ}04'03$ , Lahiri =  $24^{\circ}11'03$ 

JULY 2023 00:00 UT

| Day  | Sid.t    | 0                  | D              | Ϋ́             | φ                   | ♂ <sup>™</sup>  | 4              | ħ              | )ф(            | 并               | Р              | ß              | v              | Ç              | Ŗ              | Day  |
|------|----------|--------------------|----------------|----------------|---------------------|-----------------|----------------|----------------|----------------|-----------------|----------------|----------------|----------------|----------------|----------------|------|
| S 1  | 18 35 10 | 8956'36            | 5 <b>₹</b> 14  | 8 <b>9</b> 41  | 20 <b>Ω</b> 47      | 24 <b>Ω</b> 16  | 9 <b>8</b> 17  | 7°R 4          | 21842          | 27°R41          | 29°R37         | 1°R46          | 0 <b>8</b> 37  | 19 <b>Ω</b> 26 | 19 <b>Y</b> 45 | S 1  |
| S 2  | 18 39 6  | 9°53'48            | 19°28          | 10°52          | 21°24               | 24°52           | 9°27           | 7 <b>∺</b> 3   | 21°45          | 27 <b>)</b> (41 | 29 <b>궁</b> 36 | 1840           | 0°34           | 19°33          | 19°46          | S 2  |
| M 3  | 18 43 3  | 10°50'59           | 4පි 6          | 13° 2          | 22° 0               | 25°28           | 9°38           | 7° 1           | 21°47          | 27°41           | 29°34          | 1°32           | 0°31           | 19°39          | 19°47          | M 3  |
| T 4  | 18 47 0  | 11°48'10           | 19° 1          | 15°11          | 22°36               | 26° 4           | 9°48           | 7° 0           | 21°50          | 27°41           | 29°33          | 1°22           | 0°28           | 19°46          | 19°48          | T 4  |
| W 5  | 18 50 56 | 12°45'21           | 4≈ 5           | 17°19          | 23° 9               | 26°41           | 9°58           | 6°58           | 21°52          | 27°41           | 29°32          | 1°12           | 0°24           | 19°53          | 19°49          | W 5  |
| T 6  | 18 54 53 | 13°42'32           | 19° 7          | 19°26          | 23°42               | 27°17           | 10° 8          | 6°56           | 21°55          | 27°41           | 29°30          | 1° 3           | 0°21           | 19°59          | 19°50          | T 6  |
| F 7  | 18 58 49 | 14°39'43           | 3 <b>∺</b> 58  | 21°32          | 24°13               | 27°53           | 10°17          | 6°55           | 21°57          | 27°41           | 29°29          | 0°56           | 0°18           | 20° 6          | 19°51          | F 7  |
| S 8  | 19 2 46  | 15°36'54           | 18°32          | 23°36          | 24°42               | 28°29           | 10°27          | 6°53           | 22° 0          | 27°40           | 29°28          | 0°51           | 0°15           | 20°13          | 19°51          | S 8  |
| S 9  | 19 6 42  | 16°34'06           | 2 <b>Y</b> 45  | 25°39          | 25°11               | 29° 6           | 10°37          | 6°51           | 22° 2          | 27°40           | 29°26          | 0°49           | 0°12           | 20°20          | 19°52          | S 9  |
| M10  | 19 10 39 | 17°31'18           | 16°34          | 27°40          | 25°37               | 29°42           | 10°46          | 6°49           | 22° 4          | 27°40           | 29°25          | 0°D48          | 0° 9           | 20°26          | 19°53          | M10  |
| T 11 | 19 14 36 | 18°28'31           | 0 <b>8</b> 2   | 29°39          | 26° 2               | 0 <b>m</b> /19  | 10°56          | 6°46           | 22° 7          | 27°40           | 29°23          | 0°R48          | 0° 5           | 20°33          | 19°54          | T 11 |
| W12  | 19 18 32 | 19°25'44           | 13°11          | $1\Omega$ 37   | 26°25               | 0°55            | 11° 5          | 6°44           | 22° 9          | 27°39           | 29°22          | 0°48           | 0° 2           | 20°40          | 19°54          | W12  |
| T 13 | 19 22 29 | 20°22'58           | 26° 4          | 3°33           | 26°47               | 1°32            | 11°14          | 6°42           | 22°11          | 27°39           | 29°21          | 0°46           | 29 <b>Y</b> 59 | 20°46          | 19°55          | T 13 |
| F 14 | 19 26 25 | 21°20'12           | 8 <b>Ⅱ</b> 42  | 5°26           | 27° 7               | 2° 8            | 11°23          | 6°39           | 22°13          | 27°38           | 29°19          | 0°41           | 29°56          | 20°53          | 19°55          | F 14 |
| S 15 | 19 30 22 | 22°17'26           | 21°10          | 7°18           | 27°25               | 2°45            | 11°32          | 6°37           | 22°15          | 27°38           | 29°18          | 0°34           | 29°53          | 21° 0          | 19°56          | S 15 |
| S 16 | 19 34 18 | 23°14'41           | 39527          | 9°8            | 27°41               | 3°22            | 11°40          | 6°34           | 22°17          | 27°38           | 29°16          | 0°24           | 29°50          | 21° 7          | 19°56          | S 16 |
| M17  | 19 38 15 | 24°11'57           | 15°37          | 10°57          | 27°55               | 3°58            | 11°49          | 6°32           | 22°19          | 27°37           | 29°15          | 0°11           | 29°46          | 21°13          | 19°57          | M17  |
| T 18 | 19 42 11 | 25° 9'12           | 27°40          | 12°43          | 28° 7               | 4°35            | 11°57          | 6°29           | 22°21          | 27°37           | 29°13          | 29 <b>Y</b> 58 | 29°43          | 21°20          | 19°57          | T 18 |
| W19  | 19 46 8  | 26° 6'29           | 9 <b>Ω</b> 38  | 14°27          | 28°18               | 5°12            | 12° 6          | 6°26           | 22°23          | 27°36           | 29°12          | 29°44          | 29°40          | 21°27          | 19°57          | W19  |
| T 20 | 19 50 5  | 27° 3'45           | 21°31          | 16°10          | 28°26               | 5°49            | 12°14          | 6°23           | 22°25          | 27°35           | 29°11          | 29°31          | 29°37          | 21°33          | 19°57          | T 20 |
| F 21 | 19 54 1  | 28° 1'02           | 3 Mp 21        | 17°51          | 28°31               | 6°26            | 12°22          | 6°20           | 22°27          | 27°35           | 29° 9          | 29°20          | 29°34          | 21°40          | 19°58          | F 21 |
| S 22 | 19 57 58 | 28°58'19           | 15°11          | 19°29          | 28°35               | 7° 3            | 12°30          | 6°17           | 22°29          | 27°34           | 29° 8          | 29°12          | 29°30          | 21°47          | 19°58          | S 22 |
| S 23 | 20 1 54  | 29°55'36           | 27° 4          | 21° 6          | 28°R36              | 7°40            | 12°38          | 6°14           | 22°31          | 27°33           | 29° 6          | 29° 7          | 29°27          | 21°54          | 19°58          | S 23 |
| M24  | 20 5 51  | $0$ $\Omega$ 52'54 | 9 <b>º</b> 4   | 22°42          | 28°35               | 8°17            | 12°45          | 6°11           | 22°32          | 27°33           | 29° 5          | 29° 4          | 29°24          | 22° 0          | 19°R58         | M24  |
| T 25 | 20 9 47  | 1°50'12            | 21°15          | 24°15          | 28°32               | 8°54            | 12°53          | 6° 8           | 22°34          | 27°32           | 29° 4          | 29° 3          | 29°21          | 22° 7          | 19°58          | T 25 |
| W26  | 20 13 44 | 2°47'30            | 3 <b>M</b> .42 | 25°46          | 28°26               | 9°31            | 13° 0          | 6° 4           | 22°36          | 27°31           | 29° 2          | 29° 3          | 29°18          | 22°14          | 19°58          | W26  |
| T 27 | 20 17 40 | 3°44'49            | 16°32          | 27°16          | 28°18               | 10° 8           | 13° 7          | 6° 1           | 22°37          | 27°30           | 29° 1          | 29° 3          | 29°15          | 22°20          | 19°57          | T 27 |
| F 28 | 20 21 37 | 4°42'09            | 29°47          | 28°43          | 28° 7               | 10°45           | 13°14          | 5°57           | 22°39          | 27°30           | 28°59          | 29° 1          | 29°11          | 22°27          | 19°57          | F 28 |
| S 29 | 20 25 34 | 5°39'28            | 13 <b>×</b> 31 | 0 <b>m</b> ) 9 | 27°54               | 11°22           | 13°21          | 5°54           | 22°41          | 27°29           | 28°58          | 28°57          | 29° 8          | 22°34          | 19°57          | S 29 |
| S 30 | 20 29 30 | 6°36'49            | 27°44          | 1°32           | 27°39               | 11°59           | 13°28          | 5°50           | 22°42          | 27°28           | 28°56          | 28°51          | 29° 5          | 22°41          | 19°57          | S 30 |
| M31  | 20 33 27 | 7 <b>Ω</b> 34'10   | 12 <b>る</b> 26 | 2 <b>m</b> 54  | 27 <b>\Omega</b> 21 | 12 <b>m</b> )37 | 13 <b>8</b> 35 | 5 <b>)</b> (46 | 22 <b>8</b> 44 | 27 <b>)</b> 27  | 28 <b>궁</b> 55 | 28 <b>Y</b> 42 | 29 <b>°</b> 2  | 22 <b>N</b> 47 | 19 <b>Y</b> 56 | M31  |

| Day         | 0              | Ş              | )            | ζ              | 5            | ç            | )           | C              | ?    | 2              | +            | ħ              | <u> </u>     | )              | ł(           | 4       | 7     | Е              | 2            | n              | U              | Ç              | Š            | 5    |
|-------------|----------------|----------------|--------------|----------------|--------------|--------------|-------------|----------------|------|----------------|--------------|----------------|--------------|----------------|--------------|---------|-------|----------------|--------------|----------------|----------------|----------------|--------------|------|
|             | decl           | decl           | lat          | decl           | lat          | decl         | lat         | decl           | lat  | decl           | lat          | decl           | lat          | decl           | lat          | decl    | lat   | decl           | lat          | decl           | decl           | decl           | decl         | lat  |
| S 1         | 23n 8          | 23 s55         | 2 s47        | 24n24          | 1n15         | 15n 0        | 0n27        | 14n34          | 1n12 | 13n31          | 1 s 8        | 10 s26         | 1 s38        | 17n53          | 0s19         | 2s 3    | 1 s14 | 22 s49         | 2 s 3 9      | 12n 5          | 11n41          | 19n37          | 9n 9         | 1n33 |
| S 2         | 23 4           | 26 45          | 3 44         | 24 21          | 1 22         | 14 40        | 0 19        | 14 21          | 1 11 | 13 34          | 1 8          | 10 27          | 1 38         | 17 54          | 0 19         | 2 3     | 1 14  | 22 50          | 2 39         | 12 3           | 11 40          | 19 34          | 9 9          | 1 33 |
| M 3         | 23 0           | 27 51          |              | 24 15          | 1 28         |              |             | 14 9           |      |                | 1 8          |                |              | 17 55          |              |         |       | 22 50          | 2 39         |                |                | 19 32          | 9 10         |      |
| T 4         |                | 26 57          | 4 55         |                | 1 33         |              |             |                |      | 13 40          | 1 9          |                | 1 39         |                |              |         |       | 22 50          |              |                |                | 19 30          | 9 10         | 1 33 |
| W 5<br>T 6  | 22 50<br>22 44 | 24 7<br>19 38  |              | 23 56<br>23 43 | 1 38<br>1 42 |              |             | 13 43<br>13 30 |      | 13 43<br>13 46 | 1 9<br>1 9   |                | 1 39         | 17 56<br>17 57 | 0 19<br>0 19 | 2 3 2 3 |       | 22 51<br>22 51 |              | 11 53<br>11 50 |                |                | 9 11<br>9 11 | 1 33 |
| F 7         |                | 13 59          |              | 23 27          | 1 45         |              |             | 13 17          |      | 13 49          |              | 10 30          |              | 17 57          |              |         |       | 22 52          |              | 11 48          |                |                | 9 11         | 1 33 |
| S 8         | 22 31          |                | 3 24         |                |              | 12 45        | 0 34        |                |      | 13 52          |              | 10 31          |              | 17 58          |              |         |       | 22 52          |              |                |                | 19 20          | 9 12         |      |
| S 9         | 22 25          | 1 6            | 2 23         | 22 48          | 1 50         | 12 26        | 0 44        | 12 51          | 1 8  | 13 55          | 1 9          | 10 32          | 1 40         | 17 58          | 0 19         | 2 4     | 1 14  | 22 52          | 2 40         | 11 45          | 11 32          | 19 17          | 9 12         | 1 33 |
| M10         | 22 17          | 5n22           | 1 15         | 22 26          | 1 51         | 12 8         | 0 54        | 12 37          | 1 7  | 13 57          | 1 9          | 10 33          | 1 40         | 17 59          | 0 19         | 2 4     | 1 14  | 22 53          | 2 40         | 11 45          | 11 31          | 19 15          | 9 12         | 1 33 |
| T 11        | 22 10          |                |              | 22 2           | 1 51         |              | 1 4         |                |      |                | 1 10         |                |              |                |              |         |       | 22 53          |              |                |                | 19 12          | 9 13         |      |
| W12<br>T 13 | 22 2           |                |              | 21 36          | 1 51         |              |             | 12 11<br>11 57 |      | 14 3           | 1 10<br>1 10 |                |              |                |              |         |       | 22 53          |              | 11 45          |                |                |              |      |
|             | 21 54          | 21 22<br>24 49 |              | 21 8<br>20 39  | 1 50<br>1 48 |              |             | 11 37          |      | 14 5<br>14 8   | 1 10         |                | 1 40<br>1 41 |                | 0 19<br>0 19 |         |       | 22 54<br>22 54 |              | 11 44<br>11 43 |                |                | 9 13<br>9 13 | 1 33 |
|             | 21 36          |                | 3 53         |                | 1 46         |              |             | 11 30          |      | 14 11          |              | 10 39          | 1 41         |                |              |         |       | 22 55          |              | 11 40          |                |                | 9 14         |      |
| S 16        | 21 26          | 27 51          | 4 28         | 19 37          | 1 43         | 10 24        | 2 0         | 11 16          | 1 4  | 14 13          | 1 10         | 10 40          | 1 41         | 18 2           | 0 19         | 2 5     | 1 15  | 22 55          | 2 41         | 11 37          | 11 25          | 19 0           | 9 14         | 1 33 |
|             | -              | 27 19          | 4 50         |                | 1 39         | 10 8         |             |                |      | -              | 1 11         | -              |              |                |              | -       |       | 22 55          |              |                |                | 18 57          | 9 14         |      |
|             | 21 6           |                |              | 18 31          | 1 35         | 9 52         |             | 10 48          |      | -              | 1 11         | -              |              |                |              | -       |       | 22 56          |              |                |                | 18 55          | 9 14         |      |
| W19<br>T 20 |                | 22 34<br>18 43 | 4 55         | 17 57<br>17 21 | 1 31<br>1 26 | 9 37<br>9 22 |             | 10 34<br>10 20 |      |                | 1 11<br>1 11 |                |              |                |              |         |       | 22 56<br>22 57 |              |                |                | 18 52<br>18 50 | 9 14<br>9 14 |      |
| F 21        | 20 33          |                |              |                | 1 20         | 9 8          | 3 2         |                |      | 14 25          | 1 11         |                |              |                |              |         |       | 22 57          |              | 11 14          |                |                | 9 14         |      |
| S 22        | 20 22          | 9 3            | 3 29         | 16 9           | 1 15         |              | 3 15        | 9 52           | 1 1  | 14 27          | 1 11         | 10 47          | 1 42         | 18 5           |              |         |       | 22 57          |              |                |                | 18 45          | 9 14         |      |
| S 23        | 20 10          | 3 37           | 2 40         | 15 32          | 1 8          | 8 42         | 3 28        | 9 38           | 1 0  | 14 30          | 1 11         | 10 49          | 1 42         | 18 6           | 0 19         | 2 7     | 1 15  | 22 58          | 2 41         | 11 10          | 11 17          | 18 42          | 9 14         | 1 33 |
| M24         | 19 58          |                | 1 44         | 14 55          | 1 1          | 8 30         | 3 42        | -              |      | 14 32          | 1 12         |                | 1 42         | -              |              |         |       | 22 58          | 2 41         |                |                | 18 40          | 9 14         |      |
| T 25        | 19 45          |                | 0 41         | 14 17          | 0 54         | 8 18         | 3 55        |                |      | 14 34          | 1 12         |                |              |                |              | -       | 1 15  |                | 2 41         |                |                | 18 37          | 9 14         |      |
| W26<br>T 27 | 19 32<br>19 19 |                | 0s25<br>1 31 | 13 40<br>13 2  | 0 47 0 39    | 8 7<br>7 57  | 4 9<br>4 23 |                |      | 14 36<br>14 38 | 1 12         | 10 53<br>10 54 | 1 43<br>1 43 |                |              | -       |       | 22 59<br>22 59 | 2 41<br>2 41 |                | 11 13<br>11 12 |                | 9 14<br>9 14 |      |
| F 28        |                | 22 37          |              | _              | 0 39         | 7 48         | 4 36        | -              |      | 14 40          |              | 10 54          |              |                |              | -       | 1 15  |                | 2 42         |                |                | 18 30          | 9 14         |      |
| S 29        |                | 25 55          |              | 11 46          | 0 22         | 7 40         | 4 50        |                |      | 14 42          |              | 10 57          | 1 43         |                |              |         | 1 15  |                | 2 42         |                | 11 10          |                | 9 14         |      |
| S 30        | 18 37          | 27 43          | 4 18         | 11 8           | 0 13         | 7 32         | 5 4         | 7 56           | 0 56 | 14 43          |              | 10 58          | 1 44         | 18 9           |              | -       | 1 15  | 23 0           | 2 42         | 11 4           | 11 9           | 18 25          | 9 14         | 1 33 |
| M31         | 18n23          | 27 s39         | 4 s49        | 10n30          | 0n 4         | 7n25         | 5 s 1 7     | 7n41           | 0n56 | 14n45          | 1 s13        | 11s 0          | 1 s44        | 18n 9          | 0s19         | 2s10    | 1 s15 | 23 s 1         | 2 s42        | 11n 1          | 11n 8          | 18n22          | 9n14         | 1n33 |

Julian Day Number = 2460126.5, Delta T = 69.14 sec Ecliptic obliquity =  $23^{\circ}26'18$ , Nutation = -  $0^{\circ}00'08$ , out-of-bounds declination in red Ayanamsha: Fagan/Bradley =  $25^{\circ}04'07$ , Lahiri =  $24^{\circ}11'07$ 

AUGUST 2023 00:00 UT

| Day  | Sid.t    | 0                 | D              | ğ              | ρ              | ď                | 4              | ħ              | )∤(    | 并              | В              | N.             | v              | Ç               | ķ              | Day  |
|------|----------|-------------------|----------------|----------------|----------------|------------------|----------------|----------------|--------|----------------|----------------|----------------|----------------|-----------------|----------------|------|
| T 1  | 20 37 23 | 8 <b>Ω</b> 31'31  | 27石29          | 4 Mp 14        | 27°R 1         | 13 <b>m</b> ) 14 | 13841          | 5°R43          | 22845  | 27°R26         | 28°R54         | 28°R32         | 28Υ59          | 22 <b>\O</b> 54 | 19°R56         | T 1  |
| W 2  | 20 41 20 | 9°28'53           | 12≈45          | 5°31           | $26\Omega 39$  | 13°51            | 13°47          | 5 <b>)</b> (39 | 22°46  | 27 <b>米</b> 25 | 28 <b>궁</b> 52 | 28 <b>Y</b> 21 | 28°56          | 23° 1           | 19 <b>Y</b> 55 | W 2  |
| T 3  | 20 45 16 | 10°26'16          | 28° 2          | 6°47           | 26°15          | 14°29            | 13°53          | 5°35           | 22°48  | 27°24          | 28°51          | 28°12          | 28°52          | 23° 7           | 19°55          | T 3  |
| F 4  | 20 49 13 | 11°23'40          | 13 <b>)</b> 10 | 8° 0           | 25°49          | 15° 6            | 13°59          | 5°31           | 22°49  | 27°23          | 28°49          | 28° 4          | 28°49          | 23°14           | 19°54          | F 4  |
| S 5  | 20 53 9  | 12°21'05          | 27°59          | 9°11           | 25°20          | 15°44            | 14° 5          | 5°27           | 22°50  | 27°22          | 28°48          | 27°59          | 28°46          | 23°21           | 19°54          | S 5  |
| S 6  | 20 57 6  | 13°18'31          | 12 <b>Y</b> 23 | 10°20          | 24°50          | 16°21            | 14°11          | 5°23           | 22°51  | 27°21          | 28°47          | 27°56          | 28°43          | 23°28           | 19°53          | S 6  |
| M 7  | 21 1 3   | 14°15'59          | 26°21          | 11°26          | 24°19          | 16°59            | 14°16          | 5°19           | 22°52  | 27°20          | 28°45          | 27°D55         | 28°40          | 23°34           | 19°52          | M 7  |
| T 8  | 21 4 59  | 15°13'27          | 9 <b>8</b> 52  | 12°30          | 23°46          | 17°36            | 14°21          | 5°15           | 22°53  | 27°19          | 28°44          | 27°R55         | 28°36          | 23°41           | 19°52          | T 8  |
| W 9  | 21 8 56  | 16°10'58          | 23° 0          | 13°31          | 23°11          | 18°14            | 14°26          | 5°11           | 22°54  | 27°18          | 28°43          | 27°55          | 28°33          | 23°48           | 19°51          | W 9  |
| T 10 | 21 12 52 | 17° 8'29          | 5 <b>Ⅱ</b> 47  | 14°30          | 22°36          | 18°52            | 14°31          | 5° 7           | 22°55  | 27°17          | 28°41          | 27°54          | 28°30          | 23°54           | 19°50          | T 10 |
| F 11 | 21 16 49 | 18° 6'02          | 18°17          | 15°25          | 22° 0          | 19°29            | 14°36          | 5° 3           | 22°56  | 27°15          | 28°40          | 27°50          | 28°27          | 24° 1           | 19°49          | F 11 |
| S 12 | 21 20 45 | 19° 3'36          | 0935           | 16°18          | 21°23          | 20° 7            | 14°41          | 4°58           | 22°57  | 27°14          | 28°39          | 27°44          | 28°24          | 24° 8           | 19°48          | S 12 |
| S 13 | 21 24 42 | 20° 1'12          | 12°42          | 17° 8          | 20°46          | 20°45            | 14°45          | 4°54           | 22°58  | 27°13          | 28°37          | 27°35          | 28°21          | 24°14           | 19°47          | S 13 |
| M14  | 21 28 38 | 20°58'49          | 24°43          | 17°54          | 20° 8          | 21°23            | 14°49          | 4°50           | 22°59  | 27°12          | 28°36          | 27°24          | 28°17          | 24°21           | 19°46          | M14  |
| T 15 | 21 32 35 | 21°56'27          | 6 <b>Ω</b> 39  | 18°37          | 19°31          | 22° 1            | 14°53          | 4°45           | 23° 0  | 27°10          | 28°35          | 27°12          | 28°14          | 24°28           | 19°45          | T 15 |
| W16  | 21 36 32 | 22°54'06          | 18°32          | 19°16          | 18°54          | 22°39            | 14°57          | 4°41           | 23° 0  | 27° 9          | 28°33          | 27° 0          | 28°11          | 24°35           | 19°44          | W16  |
| T 17 | 21 40 28 | 23°51'47          | 0 <b>m</b> 23  | 19°51          | 18°18          | 23°17            | 15° 1          | 4°37           | 23° 1  | 27° 8          | 28°32          | 26°49          | 28° 8          | 24°41           | 19°42          | T 17 |
| F 18 | 21 44 25 | 24°49'29          | 12°13          | 20°22          | 17°43          | 23°55            | 15° 5          | 4°32           | 23° 1  | 27° 7          | 28°31          | 26°39          | 28° 5          | 24°48           | 19°41          | F 18 |
| S 19 | 21 48 21 | 25°47'12          | 24° 6          | 20°49          | 17° 8          | 24°33            | 15° 8          | 4°28           | 23° 2  | 27° 5          | 28°30          | 26°32          | 28° 2          | 24°55           | 19°40          | S 19 |
| S 20 | 21 52 18 | 26°44'56          | 6 <b>♀</b> 2   | 21°12          | 16°35          | 25°11            | 15°11          | 4°23           | 23° 2  | 27° 4          | 28°28          | 26°28          | 27°58          | 25° 1           | 19°39          | S 20 |
| M21  | 21 56 14 | 27°42'42          | 18° 6          | 21°29          | 16° 3          | 25°49            | 15°14          | 4°19           | 23° 3  | 27° 2          | 28°27          | 26°25          | 27°55          | 25° 8           | 19°37          | M21  |
| T 22 | 22 0 11  | 28°40'28          | 0 <b>M</b> _19 | 21°42          | 15°33          | 26°27            | 15°17          | 4°14           | 23° 3  | 27° 1          | 28°26          | 26°D25         | 27°52          | 25°15           | 19°36          | T 22 |
| W23  | 22 4 7   | 29°38'16          | 12°48          | 21°49          | 15° 4          | 27° 5            | 15°19          | 4°10           | 23° 4  | 27° 0          | 28°25          | 26°26          | 27°49          | 25°22           | 19°34          | W23  |
| T 24 | 22 8 4   | 0 <b>m</b> )36'05 | 25°35          | 21°R51         | 14°38          | 27°44            | 15°22          | 4° 5           | 23° 4  | 26°58          | 28°24          | 26°R27         | 27°46          | 25°28           | 19°33          | T 24 |
| F 25 | 22 12 1  | 1°33'55           | 8 <b>∡</b> 746 | 21°47          | 14°13          | 28°22            | 15°24          | 4° 1           | 23° 4  | 26°57          | 28°23          | 26°27          | 27°42          | 25°35           | 19°31          | F 25 |
| S 26 | 22 15 57 | 2°31'47           | 22°23          | 21°38          | 13°50          | 29° 0            | 15°26          | 3°56           | 23° 4  | 26°55          | 28°21          | 26°25          | 27°39          | 25°42           | 19°30          | S 26 |
| S 27 | 22 19 54 | 3°29'40           | 6 <b>පි</b> 28 | 21°22          | 13°30          | 29°39            | 15°28          | 3°52           | 23° 4  | 26°54          | 28°20          | 26°21          | 27°36          | 25°48           | 19°28          | S 27 |
| M28  | 22 23 50 | 4°27'34           | 21° 0          | 21° 0          | 13°12          | 0 <b>ჲ</b> 17    | 15°29          | 3°47           | 23° 4  | 26°52          | 28°19          | 26°15          | 27°33          | 25°55           | 19°26          | M28  |
| T 29 | 22 27 47 | 5°25'29           | 5≈56           | 20°33          | 12°56          | 0°56             | 15°31          | 3°43           | 23°R 5 | 26°51          | 28°18          | 26° 8          | 27°30          | 26° 2           | 19°24          | T 29 |
| W30  | 22 31 43 | 6°23'25           | 21° 7          | 20° 0          | 12°43          | 1°34             | 15°32          | 3°38           | 23° 4  | 26°49          | 28°17          | 26° 1          | 27°27          | 26° 9           | 19°23          | W30  |
| T 31 | 22 35 40 | 7 <b>m</b> 21'23  | 6 <b>)</b> €24 | 19 <b>m</b> 21 | 12 <b>N</b> 32 | 2 <b>₾</b> 13    | 15 <b>8</b> 33 | 3 <b>)</b> €34 | 238 4  | 26 <b>∺</b> 48 | 28 <b>궁</b> 16 | 25 <b>Y</b> 54 | 27 <b>Υ</b> 23 | 26 <b>Ω</b> 15  | 19 <b>Y</b> 21 | T 31 |

| Day  | 0  | D  | ğ  | φ  | ð   | 4  | ħ  | )Å(  | 卉   | Р   | 'n  | v  | ţ   | ķ  |
|--|--|--|--|--|---|--|--|--|---|---|---|--|---|--|
|  | decl   | decl lat   | decl lat   | decl lat   | decl lat  | decl lat   | decl lat   | decl lat   | decl lat  | decl lat  | decl  | decl   | decl  | decl lat   |
| T 1<br>W 2<br>T 3<br>F 4<br>S 5                            | 17 53  | 21 38 4 51<br>16 14 4 21   |  | 7 14 5 43<br>7 10 5 56<br>7 7 6 9  | 6 57 0 54<br>6 42 0 54  |  | 11 3 1 44<br>11 5 1 44<br>11 6 1 44  | 18n 9 0s19<br>18 10 0 19<br>18 10 0 19<br>18 10 0 19<br>18 11 0 19                             | 2 11 1 15<br>2 11 1 15<br>2 12 1 15   | 23 2 2 42<br>23 2 2 42<br>23 2 2 42   | 10n57<br>10 53<br>10 50<br>10 47<br>10 45                   | 11 6<br>11 4<br>11 3   | 18n19<br>18 17<br>18 14<br>18 12<br>18 9                    | 9n14 1n33<br>9 14 1 33<br>9 13 1 33<br>9 13 1 33<br>9 13 1 33                                |
| S 6<br>M 7<br>T 8<br>W 9<br>T 10<br>F 11                   | 15 42  | 10 2 0 8   | 6 15 1 7<br>5 40 1 18<br>5 7 1 29<br>4 34 1 40   | 7 3 6 44<br>7 4 6 55<br>7 5 7 5<br>7 8 7 14  |   | 14 56 1 14<br>14 58 1 14<br>14 59 1 15<br>15 0 1 15  | 11 11 1 45<br>11 13 1 45<br>11 14 1 45<br>11 16 1 45   |  | 2 13 1 16<br>2 13 1 16<br>2 14 1 16<br>2 14 1 16  | 23 3 2 42<br>23 4 2 42<br>23 4 2 42<br>23 4 2 43  | 10 44<br>10 44  |  | 18 4<br>18 1<br>17 59<br>17 56                              | 9 13 1 33<br>9 12 1 33<br>9 11 1 33      |
| S 12<br>S 13<br>M14<br>T 15<br>W16<br>T 17<br>F 18         | 15 7<br>14 48<br>14 30<br>14 12<br>13 53<br>13 34<br>13 15 | 27 56 4 29<br>27 41 4 52<br>26 8 5 2<br>23 25 4 58<br>19 44 4 41<br>15 16 4 13<br>10 15 3 33 | 3 32 2 2 13<br>3 2 2 13<br>2 3 4 2 2 4<br>5 2 7 2 35<br>1 42 2 46<br>1 1 18 2 57<br>0 56 3 8 | 7 15 7 31<br>7 19 7 38<br>7 25 7 45<br>7 31 7 50<br>7 37 7 55<br>7 44 7 59<br>7 52 8 2 | 4 40 0 49<br>4 25 0 49<br>4 9 0 48<br>3 54 0 48<br>3 38 0 47<br>3 23 0 47<br>3 7 0 46 | 15 3 1 15<br>15 4 1 15<br>15 5 1 15<br>15 6 1 16<br>15 7 1 16<br>15 8 1 16<br>15 9 1 16        | 11 19 1 45<br>11 21 1 45<br>11 23 1 46<br>11 24 1 46<br>11 26 1 46<br>11 28 1 46<br>11 29 1 46 | 18 12 0 19<br>18 13 0 19 | 2 15 1 16<br>2 16 1 16<br>2 16 1 16<br>2 17 1 16<br>2 18 1 16<br>2 18 1 16<br>2 19 1 16 | 23 5 2 43<br>23 5 2 43<br>23 6 2 43<br>23 6 2 43<br>23 6 2 43<br>23 7 2 43<br>23 7 2 43 | 10 40<br>10 37<br>10 33<br>10 29<br>10 24<br>10 20<br>10 17 | 10 54<br>10 53<br>10 52<br>10 51<br>10 50<br>10 49<br>10 47          | 17 51<br>17 48<br>17 46<br>17 43<br>17 40<br>17 38<br>17 35 | 9 11 1 33<br>9 10 1 33<br>9 10 1 33<br>9 10 1 33<br>9 9 1 33<br>9 9 1 33<br>9 8 1 33         |
| S 19<br>S 20<br>M21<br>T 22<br>W23<br>T 24<br>F 25<br>S 26 | 11 36<br>11 16<br>10 55                                    | 0s46 1 47<br>6 25 0 44<br>11 55 0s21<br>17 3 1 27<br>21 35 2 30                              | 0 18 3 28<br>0 2 3 38<br>0 s11 3 47<br>0 22 3 56<br>0 30 4 4<br>0 35 4 11                    | 8 9 8 5<br>8 17 8 5<br>8 26 8 5<br>8 36 8 4<br>8 45 8 2<br>8 55 7 59                   | 2 21 0 44<br>2 5 0 44<br>1 49 0 43<br>1 33 0 43<br>1 18 0 42                          | 15 10 1 17<br>15 11 1 17<br>15 11 1 17<br>15 12 1 17<br>15 12 1 17<br>15 12 1 17<br>15 13 1 18 | 11 33 1 46<br>11 35 1 46<br>11 36 1 46<br>11 38 1 47<br>11 40 1 47<br>11 42 1 47               |  | 2 20 1 16<br>2 20 1 16<br>2 21 1 16<br>2 22 1 16<br>2 22 1 16<br>2 23 1 16              | 23 8 2 43<br>23 8 2 43<br>23 8 2 43<br>23 8 2 43<br>23 9 2 43<br>23 9 2 43              | 10 13<br>10 12<br>10 12<br>10 12<br>10 12<br>10 12          | 10 46<br>10 45<br>10 44<br>10 43<br>10 42<br>10 41<br>10 39<br>10 38 | 17 30<br>17 27<br>17 24<br>17 22<br>17 19<br>17 16          | 9 8 1 33<br>9 7 1 33<br>9 7 1 33<br>9 6 1 33<br>9 6 1 33<br>9 5 1 33<br>9 4 1 33<br>9 4 1 33 |
| S 27<br>M28<br>T 29<br>W30<br>T 31                         |  | 26 50 5 5<br>23 40 5 2<br>18 51 4 38   | 0 32 4 27<br>0 23 4 30<br>0 12 4 31  | 9 23 7 47<br>9 32 7 42<br>9 41 7 36  | 0 30 0 41<br>0 15 0 40<br>0s 1 0 39   | 15 14 1 18<br>15 14 1 18<br>15 14 1 19   | 11 47 1 47<br>11 48 1 47<br>11 50 1 47   | 18 14 0 19<br>18 14 0 19<br>18 14 0 19<br>18 14 0 19<br>18n14 0 s19                            | 2 25 1 16<br>2 25 1 16<br>2 26 1 16   | 23 10 2 43<br>23 10 2 43<br>23 10 2 44  | 10 8<br>10 5<br>10 3  |  | 17 8<br>17 6<br>17 3  | 9 3 1 33<br>9 3 1 33<br>9 2 1 33<br>9 1 1 33<br>9n 0 1n33                                    |

Julian Day Number = 2460157.5, Delta T = 69.13 sec Ecliptic obliquity =  $23^{\circ}26'18$ , Nutation = -  $0^{\circ}00'07$ , out-of-bounds declination in red Ayanamsha: Fagan/Bradley =  $25^{\circ}04'11$ , Lahiri =  $24^{\circ}11'11$ 

SEPTEMBER 2023 00:00 UT

| Day  | Sid.t    | 0                  | D                | ğ               | φ              | ð              | 4              | ħ              | )∤(    | ¥              | Р              | ß              | Ω              | Ç     | ę,             | Day  |
|------|----------|--------------------|------------------|-----------------|----------------|----------------|----------------|----------------|--------|----------------|----------------|----------------|----------------|-------|----------------|------|
| F 1  | 22 39 36 | 8 <b>m</b> ) 19'23 | 21 <b>)</b> (36  | 18°R37          | 12°R23         | 2 <b>≙</b> 51  | 15 <b>8</b> 34 | 3°R29          | 23°R 4 | 26°R46         | 28°R15         | 25°R48         | 27 <b>Y</b> 20 | 26€22 | 19°R19         | F 1  |
| S 2  | 22 43 33 | 9°17'24            | 6 <b>Ƴ</b> 33    | 17 <b>m</b> )48 | 12 <b>Ω</b> 17 | 3°30           | 15°34          | 3 <b>∺</b> 25  | 238 4  | 26 <b>)</b> 45 | 28 <b>궁</b> 14 | 25 <b>Y</b> 45 | 27°17          | 26°29 | 19 <b>Y</b> 17 | S 2  |
| S 3  | 22 47 30 | 10°15'27           | 21° 7            | 16°55           | 12°14          | 4° 9           | 15°35          | 3°20           | 23° 4  | 26°43          | 28°13          | 25°D43         | 27°14          | 26°35 | 19°15          | S 3  |
| M 4  | 22 51 26 | 11°13'32           | 5 <b>8</b> 15    | 16° 0           | 12°D12         | 4°47           | 15°35          | 3°16           | 23° 4  | 26°42          | 28°12          | 25°44          | 27°11          | 26°42 | 19°13          | M 4  |
| T 5  | 22 55 23 | 12°11'39           | 18°54            | 15° 2           | 12°13          | 5°26           | 15°R35         | 3°11           | 23° 3  | 26°40          | 28°11          | 25°45          | 27° 7          | 26°49 | 19°11          | T 5  |
| W 6  | 22 59 19 | 13° 9'48           | 2 <b>I</b> 7     | 14° 4           | 12°17          | 6° 5           | 15°35          | 3° 7           | 23° 3  | 26°38          | 28°10          | 25°46          | 27° 4          | 26°55 | 19° 9          | W 6  |
| T 7  | 23 3 16  | 14° 7'59           | 14°56            | 13° 6           | 12°22          | 6°44           | 15°34          | 3° 2           | 23° 3  | 26°37          | 28° 9          | 25°R47         | 27° 1          | 27° 2 | 19° 7          | T 7  |
| F 8  | 23 7 12  | 15° 6'12           | 27°26            | 12°10           | 12°30          | 7°23           | 15°34          | 2°58           | 23° 2  | 26°35          | 28° 8          | 25°46          | 26°58          | 27° 9 | 19° 5          | F 8  |
| S 9  | 23 11 9  | 16° 4'27           | 99541            | 11°16           | 12°40          | 8° 2           | 15°33          | 2°53           | 23° 2  | 26°34          | 28° 8          | 25°43          | 26°55          | 27°16 | 19° 3          | S 9  |
| S 10 | 23 15 5  | 17° 2'44           | 21°44            | 10°27           | 12°52          | 8°41           | 15°32          | 2°49           | 23° 1  | 26°32          | 28° 7          | 25°39          | 26°52          | 27°22 | 19° 1          | S 10 |
| M11  | 23 19 2  | 18° 1'03           | 3 <b>Ω</b> 40    | 9°44            | 13° 7          | 9°20           | 15°31          | 2°45           | 23° 0  | 26°30          | 28° 6          | 25°33          | 26°48          | 27°29 | 18°58          | M11  |
| T 12 | 23 22 59 | 18°59'24           | 15°32            | 9° 7            | 13°23          | 9°59           | 15°29          | 2°40           | 23° 0  | 26°29          | 28° 5          | 25°27          | 26°45          | 27°36 | 18°56          | T 12 |
| W13  | 23 26 55 | 19°57'47           | 27°23            | 8°37            | 13°41          | 10°38          | 15°28          | 2°36           | 22°59  | 26°27          | 28° 4          | 25°20          | 26°42          | 27°42 | 18°54          | W13  |
| T 14 | 23 30 52 | 20°56'12           | 9 <b>m</b> )15   | 8°16            | 14° 1          | 11°17          | 15°26          | 2°32           | 22°58  | 26°25          | 28° 4          | 25°14          | 26°39          | 27°49 | 18°51          | T 14 |
| F 15 | 23 34 48 | 21°54'39           | 21° 9            | 8° 4            | 14°23          | 11°56          | 15°24          | 2°28           | 22°57  | 26°24          | 28° 3          | 25° 8          | 26°36          | 27°56 | 18°49          | F 15 |
| S 16 | 23 38 45 | 22°53'07           | 3 <b>₾</b> 8     | 8°D 0           | 14°47          | 12°36          | 15°22          | 2°24           | 22°57  | 26°22          | 28° 2          | 25° 5          | 26°33          | 28° 2 | 18°47          | S 16 |
| S 17 | 23 42 41 | 23°51'37           | 15°13            | 8° 6            | 15°12          | 13°15          | 15°19          | 2°20           | 22°56  | 26°20          | 28° 2          | 25° 3          | 26°29          | 28° 9 | 18°44          | S 17 |
| M18  | 23 46 38 | 24°50'10           | 27°27            | 8°22            | 15°39          | 13°54          | 15°17          | 2°16           | 22°55  | 26°19          | 28° 1          | 25°D 2         | 26°26          | 28°16 | 18°42          | M18  |
| T 19 | 23 50 34 | 25°48'44           | 9 <b>M</b> .51   | 8°47            | 16° 8          | 14°34          | 15°14          | 2°12           | 22°54  | 26°17          | 28° 0          | 25° 3          | 26°23          | 28°23 | 18°39          | T 19 |
| W20  | 23 54 31 | 26°47'19           | 22°28            | 9°21            | 16°38          | 15°13          | 15°11          | 2° 8           | 22°53  | 26°15          | 28° 0          | 25° 5          | 26°20          | 28°29 | 18°37          | W20  |
| T 21 | 23 58 28 | 27°45'57           | 5 <b>₹</b> 21    | 10° 4           | 17° 9          | 15°53          | 15° 8          | 2° 4           | 22°52  | 26°14          | 27°59          | 25° 6          | 26°17          | 28°36 | 18°34          | T 21 |
| F 22 | 0 2 24   | 28°44'36           | 18°33            | 10°55           | 17°42          | 16°32          | 15° 5          | 2° 0           | 22°50  | 26°12          | 27°59          | 25° 8          | 26°13          | 28°43 | 18°32          | F 22 |
| S 23 | 0 621    | 29°43'17           | 2 <b>ප</b> 5     | 11°54           | 18°16          | 17°12          | 15° 1          | 1°56           | 22°49  | 26°10          | 27°58          | 25°R 8         | 26°10          | 28°49 | 18°29          | S 23 |
| S 24 | 0 10 17  | 0 <b>ჲ</b> 42'00   | 16° 1            | 13° 0           | 18°52          | 17°52          | 14°57          | 1°53           | 22°48  | 26° 9          | 27°58          | 25° 7          | 26° 7          | 28°56 | 18°27          | S 24 |
| M25  | 0 14 14  | 1°40'44            | 0≈18             | 14°12           | 19°29          | 18°31          | 14°53          | 1°49           | 22°47  | 26° 7          | 27°57          | 25° 5          | 26° 4          | 29° 3 | 18°24          | M25  |
| T 26 | 0 18 10  | 2°39'30            | 14°56            | 15°31           | 20° 7          | 19°11          | 14°49          | 1°45           | 22°45  | 26° 6          | 27°57          | 25° 3          | 26° 1          | 29° 9 | 18°22          | T 26 |
| W27  | 0 22 7   | 3°38'18            | 29°49            | 16°54           | 20°46          | 19°51          | 14°45          | 1°42           | 22°44  | 26° 4          | 27°56          | 25° 0          | 25°58          | 29°16 | 18°19          | W27  |
| T 28 | 0 26 3   | 4°37'07            | 14 <b>) (</b> 49 | 18°22           | 21°27          | 20°31          | 14°40          | 1°38           | 22°43  | 26° 2          | 27°56          | 24°57          | 25°54          | 29°23 | 18°17          | T 28 |
| F 29 | 0 30 0   | 5°35'58            | 29°49            | 19°54           | 22° 9          | 21°10          | 14°36          | 1°35           | 22°41  | 26° 1          | 27°56          | 24°55          | 25°51          | 29°30 | 18°14          | F 29 |
| S 30 | 0 33 56  | 6 <b>₽</b> 34'51   | 14 <b>Y</b> 40   | 21 <b>m</b> 30  | 22 <b>N</b> 51 | 21 <b>≏</b> 50 | 14831          | 1 <b>)</b> €32 | 22840  | 25 <b>米</b> 59 | 27 <b>궁</b> 55 | 24 <b>Y</b> 54 | 25 <b>Y</b> 48 | 29€36 | 18 <b>Y</b> 11 | S 30 |

| Day  | 0   | D                           | ğ  | ·  | ♂  | 4  | ħ  | )∤(  | <del>4</del>   | Р  | v v   | ţ   | ķ  |
|--|---|-----------------------------|--|--|--|--|--|--|--|--|---|---|--|
|  | decl  | decl lat                    | decl lat   | decl lat   | decl lat   | decl lat   | decl lat   | decl lat   | decl lat   | decl lat   | decl dec  | decl  | decl lat   |
| F 1<br>S 2   | 8n27<br>8 5   | 5 s 5 9 2 s 5 3 1 n 3 1 4 2 | 0n22 4s2<br>0 45 4 2   |  |  |  |  | 18n14 0s19<br>18 14 0 19   |  | 23 s11 2 s44<br>23 11 2 44                           | 9n58 10n3<br>9 57 10 3  |   | 9n 0 1n33<br>8 59 1 33   |
| S 3<br>M 4   | 7 43<br>7 21  | 7 51 0 25<br>14 5 0n51      | 1 10 4 2<br>1 39 4 1   | 2 10 23 7 1  | 1 20 0 37  | 15 14 1 20   | 11 59 1 47   |  | 2 29 1 16  | 23 12 2 44   | 9 56 10 2<br>9 57 10 2  | 16 49   | 8 58 1 33<br>8 57 1 33   |
| T 5<br>W 6<br>T 7<br>F 8                                   | 6 37<br>6 15  | 26 29 3 55                  | 2 42 3 5   | 9 10 44 6 37   |  | 15 14 1 20<br>15 13 1 20   | 12 2 1 47<br>12 4 1 47   | 18 14 0 19<br>18 13 0 19   | -  | 23 12 2 44<br>23 12 2 44                             | 9 57 10 2<br>9 57 10 2<br>9 58 10 2<br>9 57 10 2  | 6 16 44<br>5 16 41  | 8 57 1 33<br>8 56 1 33<br>8 55 1 33<br>8 54 1 33   |
| S 9<br>S 10<br>M11<br>T 12<br>W13<br>T 14<br>F 15          | 5 7<br>4 44   | 20 49 4 51                  | 5 1 2 5  | 2 11 6 6 1<br>3 11 10 5 52<br>3 11 14 5 43<br>4 11 17 5 34   | 2 56 0 33<br>3 12 0 33<br>3 28 0 32  | 15 11 1 21<br>15 10 1 21   | 12 8 1 47<br>12 10 1 47<br>12 11 1 47<br>12 13 1 47<br>12 15 1 47                | 18 13 0 19<br>18 12 0 19 | 2 33 1 16<br>2 34 1 16<br>2 34 1 16<br>2 35 1 16                           | 23 13 2 44<br>23 13 2 44<br>23 14 2 44               | 9 56 10 2<br>9 55 10 2<br>9 53 10 2<br>9 50 10 1<br>9 48 10 1<br>9 46 10 1<br>9 44 10 1 | 1 16 33<br>0 16 30<br>0 16 27<br>3 16 25<br>7 16 22                       | 8 53 1 33<br>8 53 1 33<br>8 52 1 33<br>8 51 1 33<br>8 50 1 33<br>8 49 1 33<br>8 48 1 33              |
| S 16<br>S 17<br>M18<br>T 19<br>W20<br>T 21<br>F 22<br>S 23 | 1 17<br>0 53<br>0 30                                  | 24 32 3 23                  | 7 58 0 3<br>8 9 0 1<br>8 15 0<br>8 17 0n1<br>8 15 0 2<br>8 8 0 4 | 8 11 25 4 56<br>1 11 26 4 47<br>5 11 26 4 38<br>9 11 26 4 28 | 4 31 0 30<br>4 47 0 29<br>5 3 0 29<br>5 18 0 28<br>5 34 0 28<br>5 50 0 27<br>6 6 0 27<br>6 21 0 26 | 15 7 1 22<br>15 7 1 22<br>15 6 1 22<br>15 5 1 22<br>15 3 1 23<br>15 2 1 23 | 12 19 1 47<br>12 20 1 47<br>12 22 1 47<br>12 23 1 47<br>12 25 1 47<br>12 26 1 47 | 18 11 0 19<br>18 11 0 19   | 2 38 1 17<br>2 38 1 17<br>2 39 1 17<br>2 40 1 17<br>2 40 1 17<br>2 41 1 17 | 23 14 2 44<br>23 14 2 44<br>23 14 2 44<br>23 15 2 44 | 9 43 10   | 3 16 13<br>2 16 11<br>1 16 8  | 8 47 1 33<br>8 46 1 33<br>8 45 1 33<br>8 44 1 33<br>8 43 1 33<br>8 42 1 33<br>8 41 1 32<br>8 40 1 32 |
| S 24<br>M25<br>T 26<br>W27<br>T 28<br>F 29<br>S 30         | 0 s17<br>0 40<br>1 3<br>1 27<br>1 50<br>2 13<br>2 s37 | 25 11 5 13<br>21 4 4 56     | 7 24 1 1<br>7 1 1 2<br>6 36 1 3<br>6 7 1 3<br>5 35 1 4           | 5 11 15 3 43<br>3 11 11 3 34<br>9 11 7 3 25<br>4 11 2 3 16   | 6 37 0 25<br>6 53 0 25<br>7 8 0 24<br>7 24 0 24<br>7 39 0 23<br>7 55 0 23<br>8 s10 0n22            | 14 59 1 23<br>14 57 1 23<br>14 56 1 23<br>14 55 1 24<br>14 53 1 24         | 12 30 1 47<br>12 31 1 47<br>12 32 1 47<br>12 34 1 47<br>12 35 1 47               | 18 9 0 19<br>18 9 0 19<br>18 8 0 19  | 2 43 1 17<br>2 44 1 17<br>2 44 1 17<br>2 45 1 17<br>2 45 1 17              | 23 15 2 44<br>23 15 2 44<br>23 15 2 44               | 9 43 10<br>9 42 10<br>9 41 10<br>9 40 10<br>9 39 9 5                                    | 5 15 54<br>4 15 51<br>8 15 48<br>2 15 45<br>0 15 43<br>0 15 40<br>8 15n37 | 8 39 1 32<br>8 38 1 32<br>8 37 1 32<br>8 36 1 32<br>8 35 1 32<br>8 34 1 32<br>8n33 1n32              |

Julian Day Number = 2460188.5, Delta T = 69.13 sec Ecliptic obliquity =  $23^{\circ}26'19$ , Nutation = -  $0^{\circ}00'07$ , out-of-bounds declination in red Ayanamsha: Fagan/Bradley =  $25^{\circ}04'15$ , Lahiri =  $24^{\circ}11'16$ 

OCTOBER 2023 00:00 UT

| 0010 | DEN ZU  | LJ                |                            |                |                |                 |        |               |                |                |                |                |                |                | 00.00          | 0 01 |
|------|---------|-------------------|----------------------------|----------------|----------------|-----------------|--------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------|
| Day  | Sid.t   | 0                 | D                          | ğ              | φ              | ð               | 4      | ħ             | )મું(          | 并              | В              | v              | v              | Ç              | Ŗ              | Day  |
| S 1  | 0 37 53 | 7 <b>₽</b> 33'47  | 29Υ13                      | 23 m/ 8        | 23 <b>N</b> 35 | 22 <b>£</b> 30  | 14°R26 | 1°R29         | 22°R38         | 25°R57         | 27°R55         | 24°D54         | 25 <b>Υ</b> 45 | 29 <b>Ω</b> 43 | 18°R 9         | S 1  |
| M 2  | 0 41 50 | 8°32'44           | 13824                      | 24°48          | 24°20          | 23°10           | 14821  | 1 <b>∺</b> 25 | 22 <b>8</b> 37 | 25 <b>米</b> 56 | 27 <b>る</b> 55 | 24 <b>Y</b> 54 | 25°42          | 29°50          | 18 <b>Y</b> 6  | M 2  |
| T 3  | 0 45 46 | 9°31'44           | 27°10                      | 26°31          | 25° 5          | 23°50           | 14°16  | 1°22          | 22°35          | 25°54          | 27°54          | 24°55          | 25°39          | 29°56          | 18° 3          | T 3  |
| W 4  | 0 49 43 | 10°30'46          | 10Ⅱ29                      | 28°15          | 25°52          | 24°30           | 14°10  | 1°19          | 22°34          | 25°53          | 27°54          | 24°57          | 25°35          | 0 <b>m</b> y 3 | 18° 1          | W 4  |
| T 5  | 0 53 39 | 11°29'50          | 23°24                      | 29°59          | 26°39          | 25°11           | 14° 4  | 1°16          | 22°32          | 25°51          | 27°54          | 24°58          | 25°32          | 0°10           | 17°58          | T 5  |
| F 6  | 0 57 36 | 12°28'57          | 5958                       | 1 <b>≏</b> 45  | 27°28          | 25°51           | 13°59  | 1°14          | 22°30          | 25°49          | 27°54          | 24°58          | 25°29          | 0°16           | 17°55          | F 6  |
| S 7  | 1 1 32  | 13°28'06          | 18°14                      | 3°31           | 28°17          | 26°31           | 13°53  | 1°11          | 22°28          | 25°48          | 27°54          | 24°R58         | 25°26          | 0°23           | 17°52          | S 7  |
| S 8  | 1 5 29  | 14°27'17          | 0Ω18                       | 5°17           | 29° 7          | 27°11           | 13°47  | 1° 8          | 22°27          | 25°46          | 27°54          | 24°58          | 25°23          | 0°30           | 17°50          | S 8  |
| M 9  | 1 9 26  | 15°26'31          | 12°13                      | 7° 4           | 29°57          | 27°52           | 13°40  | 1° 5          | 22°25          | 25°45          | 27°54          | 24°57          | 25°19          | 0°37           | 17°47          | M 9  |
| T 10 | 1 13 22 | 16°25'46          | 24° 4                      | 8°50           | 0 <b>m</b> 49  | 28°32           | 13°34  | 1° 3          | 22°23          | 25°43          | 27°54          | 24°56          | 25°16          | 0°43           | 17°44          | T 10 |
| W11  | 1 17 19 | 17°25'04          | 5 <b>m</b> 55              | 10°36          | 1°41           | 29°13           | 13°28  | 1° 1          | 22°21          | 25°42          | 27°D54         | 24°55          | 25°13          | 0°50           | 17°41          | W11  |
| T 12 | 1 21 15 | 18°24'24          | 17°49                      | 12°22          | 2°34           | 29°53           | 13°21  | 0°58          | 22°19          | 25°40          | 27°54          | 24°54          | 25°10          | 0°57           | 17°39          | T 12 |
| F 13 | 1 25 12 | 19°23'47          | 29°49                      | 14° 8          | 3°28           | 0 <b>M</b> .34  | 13°14  | 0°56          | 22°17          | 25°39          | 27°54          | 24°53          | 25° 7          | 1° 3           | 17°36          | F 13 |
| S 14 | 1 29 8  | 20°23'11          | 11 <b>≏</b> 57             | 15°53          | 4°22           | 1°14            | 13° 7  | 0°54          | 22°15          | 25°37          | 27°54          | 24°53          | 25° 4          | 1°10           | 17°33          | S 14 |
| S 15 | 1 33 5  | 21°22'38          | 24°16                      | 17°37          | 5°17           | 1°55            | 13° 0  | 0°52          | 22°13          | 25°36          | 27°54          | 24°D52         | 25° 0          | 1°17           | 17°31          | S 15 |
| M16  | 1 37 1  | 22°22'06          | 6 <b>M</b> .45             | 19°21          | 6°12           | 2°36            | 12°53  | 0°50          | 22°11          | 25°34          | 27°54          | 24°53          | 24°57          | 1°23           | 17°28          | M16  |
| T 17 | 1 40 58 | 23°21'37          | 19°28                      | 21° 4          | 7° 8           | 3°16            | 12°46  | 0°48          | 22° 9          | 25°33          | 27°54          | 24°53          | 24°54          | 1°30           | 17°25          | T 17 |
| W18  | 1 44 54 | 24°21'09          | 2 <b>×</b> <sup>7</sup> 23 | 22°47          | 8° 4           | 3°57            | 12°39  | 0°46          | 22° 7          | 25°31          | 27°54          | 24°53          | 24°51          | 1°37           | 17°22          | W18  |
| T 19 | 1 48 51 | 25°20'44          | 15°32                      | 24°29          | 9° 1           | 4°38            | 12°31  | 0°44          | 22° 5          | 25°30          | 27°54          | 24°R53         | 24°48          | 1°44           | 17°20          | T 19 |
| F 20 | 1 52 48 | 26°20'20          | 2 <u>8°</u> 55             | 26°11          | 9°59           | 5°19            | 12°24  | 0°43          | 22° 3          | 25°29          | 27°55          | 24°53          | 24°45          | 1°50           | 17°17          | F 20 |
| S 21 | 1 56 44 | 27°19'58          | 12 <b>る</b> 33             | 27°51          | 10°57          | 6° 0            | 12°16  | 0°41          | 22° 1          | 25°27          | 27°55          | 24°53          | 24°41          | 1°57           | 17°14          | S 21 |
| S 22 | 2 0 41  | 28°19'38          | 26°26                      | 29°32          | 11°56          | 6°41            | 12° 8  | 0°40          | 21°58          | 25°26          | 27°55          | 24°D52         | 24°38          | 2° 4           | 17°12          | S 22 |
| M23  | 2 4 37  | 29°19'20          | 10≈33                      | 1 <b>M</b> .11 | 12°55          | 7°22            | 12° 1  | 0°39          | 21°56          | 25°25          | 27°56          | 24°53          | 24°35          | 2°10           | 17° 9          | M23  |
| T 24 | 2 8 34  | 0 <b>M</b> .19'03 | 24°52                      | 2°50           | 13°54          | 8° 3            | 11°53  | 0°37          | 21°54          | 25°23          | 27°56          | 24°53          | 24°32          | 2°17           | 17° 6          | T 24 |
| W25  | 2 12 30 | 1°18'47           | 9 <b>∺</b> 20              | 4°29           | 14°54          | 8°44            | 11°45  | 0°36          | 21°52          | 25°22          | 27°56          | 24°53          | 24°29          | 2°24           | 17° 4          | W25  |
| T 26 | 2 16 27 | 2°18'34           | 23°54                      | 6° 6           | 15°55          | 9°25            | 11°37  | 0°35          | 21°49          | 25°21          | 27°57          | 24°54          | 24°25          | 2°30           | 17° 1          | T 26 |
| F 27 | 2 20 23 | 3°18'22           | 8 <b>Υ</b> 29              | 7°44           | 16°55          | 10° 7           | 11°29  | 0°34          | 21°47          | 25°20          | 27°57          | 24°55          | 24°22          | 2°37           | 16°59          | F 27 |
| S 28 | 2 24 20 | 4°18'12           | 22°58                      | 9°20           | 17°57          | 10°48           | 11°21  | 0°34          | 21°45          | 25°18          | 27°58          | 24°R55         | 24°19          | 2°44           | 16°56          | S 28 |
| S 29 | 2 28 17 | 5°18'03           | 7 <b>8</b> 17              | 10°57          | 18°58          | 11°29           | 11°13  | 0°33          | 21°42          | 25°17          | 27°58          | 24°55          | 24°16          | 2°50           | 16°53          | S 29 |
| M30  | 2 32 13 | 6°17'57           | 21°19                      | 12°32          | 20° 0          | 12°11           | 11° 5  | 0°32          | 21°40          | 25°16          | 2 <u>7</u> °59 | 24°54          | 24°13          | 2°57           | 16°51          | M30  |
| T 31 | 2 36 10 | 7 <b>M</b> 17'53  | 5 <b>I</b> 1               | 14 <b>M</b> 8  | 21 mg 3        | 12 <b>M</b> .52 | 10857  | 0 <b>∺</b> 32 | 21 <b>8</b> 38 | 25 <b>米</b> 15 | 27 <b>る</b> 59 | 24 <b>Y</b> 52 | 24 <b>Υ</b> 10 | 3 Mp 4         | 16 <b>Y</b> 48 | T 31 |

| Day  | 0   | D   | ğ  | ·   | ♂  | 4  | ħ  | )∤(   | ¥   | Р  | n  | Ω   | Č &  |
|--|---|---|--|---|--|--|--|---|---|--|--|---|--|
|  | decl  | decl lat  | decl lat                                     | decl lat  | decl lat   | decl lat   | decl lat   | decl lat  | decl lat  | decl lat   | decl   | decl d  | ecl decl lat   |
| S 1<br>M 2<br>T 3<br>W 4<br>T 5<br>F 6             | 4 10<br>4 33  |   | 3 47 1 5<br>3 8 1 5<br>2 27 1 5<br>1 45 1 5  | 3 10 44 2 50<br>4 10 37 2 41<br>4 10 30 2 33<br>4 10 22 2 25            | 9 11 0 20<br>9 27 0 19   | 14 47 1 24<br>14 45 1 24<br>14 43 1 24   | 12 38 1 47<br>12 39 1 47<br>12 40 1 47<br>12 41 1 47               | 18 6 0 19<br>18 6 0 19<br>18 6 0 19                           | 2 47 1 17<br>2 48 1 17<br>2 49 1 17<br>2 49 1 17              | 23 16 2 44<br>23 16 2 44   | 9n38<br>9 39<br>9 39<br>9 39<br>9 40<br>9 40         | 9 54 15<br>9 52 15  | 31 8 31 1 32<br>28 8 30 1 32<br>25 8 29 1 32<br>23 8 28 1 32                 |
| S 7  |   | 27 23 5 14  | 0 18 1 5                                     | 1 10 4 2 8  | 9 57 0 18  | 14 41 1 24<br>14 40 1 25   | 12 43 1 47   | 18 5 0 19   | 2 51 1 17   |  | 9 40   | 9 51 15<br>9 50 15  | 17 8 25 1 32   |
| S 8<br>M 9<br>T 10<br>W11<br>T 12<br>F 13<br>S 14  |   | 25 13 5 15<br>21 58 5 2<br>17 51 4 37<br>13 3 3 59<br>7 45 3 11<br>2 8 2 15<br>3 s 3 8 1 11 | 1 12 1 4<br>1 57 1 4<br>2 42 1 3<br>3 27 1 3 | 5 9 44 1 53<br>2 9 33 1 45<br>8 9 22 1 37<br>4 9 10 1 30<br>9 8 58 1 22 | 10 27 0 17<br>10 42 0 16<br>10 57 0 16<br>11 12 0 15<br>11 27 0 15 | 14 38 1 25<br>14 36 1 25<br>14 34 1 25<br>14 32 1 25<br>14 30 1 25<br>14 28 1 25<br>14 25 1 25 | 12 45 1 47<br>12 46 1 47<br>12 46 1 46<br>12 47 1 46<br>12 48 1 46 | 18 4 0 19<br>18 3 0 19<br>18 3 0 19<br>18 2 0 19<br>18 2 0 19 | 2 52 1 17<br>2 52 1 17<br>2 53 1 17<br>2 54 1 17<br>2 54 1 17 | 23 16 2 44<br>23 16 2 44<br>23 16 2 44<br>23 16 2 44               | 9 40<br>9 40<br>9 39<br>9 39<br>9 38<br>9 38<br>9 38 | 9 49 15<br>9 48 15<br>9 47 15<br>9 45 15<br>9 44 15<br>9 43 15<br>9 42 14 | 8 8 22 1 31<br>5 8 21 1 31<br>2 8 20 1 31<br>0 8 19 1 31                     |
| S 15<br>M16<br>T 17<br>W18<br>T 19<br>F 20<br>S 21 | 8 20<br>8 42<br>9 4<br>9 26<br>9 48<br>10 10<br>10 31       | 28 11 4 45  | 7 55 1<br>8 38 0 5<br>9 21 0 4               | 3 8 18 1 1<br>7 8 4 0 54<br>1 7 49 0 47<br>5 7 34 0 40<br>9 7 18 0 34   | 12 10 0 13<br>12 25 0 12<br>12 39 0 12<br>12 54 0 11<br>13 8 0 10  |  | 12 50 1 46<br>12 50 1 46<br>12 51 1 46<br>12 52 1 46<br>12 52 1 46 | 18 0 0 19<br>18 0 0 19<br>17 59 0 19<br>17 59 0 19            | 2 56 1 16<br>2 56 1 16<br>2 57 1 16<br>2 57 1 16<br>2 58 1 16 | 23 16 2 44<br>23 16 2 44<br>23 16 2 44<br>23 16 2 44               | 9 38<br>9 38<br>9 38<br>9 38<br>9 38<br>9 38<br>9 38 | 9 41 14<br>9 40 14<br>9 38 14<br>9 37 14<br>9 36 14<br>9 35 14<br>9 34 14 | 51 8 15 1 31<br>48 8 14 1 31<br>45 8 13 1 31<br>42 8 12 1 31<br>39 8 11 1 31 |
| S 22<br>M23<br>T 24<br>W25<br>T 26<br>F 27<br>S 28 | 10 53<br>11 14<br>11 35<br>11 56<br>12 16<br>12 37<br>12 57 | 22 29 5 5<br>17 33 4 35   | 12 6 0 2<br>12 46 0 1<br>13 25 0<br>14 3 0   | 9 6 29 0 15<br>3 6 12 0 9<br>6 5 54 0 3<br>9 5 36 0n 3<br>3 5 18 0 9    | 13 50 0 9<br>14 4 0 8<br>14 18 0 7<br>14 31 0 7                    | 14 5 1 25<br>14 3 1 25<br>14 0 1 25<br>13 58 1 25<br>13 56 1 25                                | 12 53 1 45<br>12 54 1 45<br>12 54 1 45<br>12 54 1 45<br>12 54 1 45 | 17 56 0 19<br>17 55 0 19<br>17 55 0 19                        | 3 0 1 16<br>3 0 1 16<br>3 1 1 16<br>3 1 1 16<br>3 1 1 16      | 23 16 2 44<br>23 16 2 44<br>23 15 2 44<br>23 15 2 44<br>23 15 2 44 | 9 38<br>9 38<br>9 38<br>9 38<br>9 38<br>9 39<br>9 39 | 9 31 14<br>9 30 14<br>9 29 14   |  |
| S 29<br>M30<br>T 31                                | 13 17<br>13 37<br>13 s57                                    | 20 22 2 21  | 15 17 0 1<br>15 53 0 1<br>16s28 0s2          | 8 4 21 0 25   |  | 13 51 1 25<br>13 48 1 25<br>13n46 1 s25  | 12 55 1 45   | 17 53 0 19<br>17 52 0 19<br>17n52 0s19                        | 3 3 1 16  |  | 9 39<br>9 38<br>9n38                                 | 9 24 14<br>9 23 14<br>9n22 14   | 10 8 0 1 30  |

Julian Day Number = 2460218.5, Delta T = 69.12 sec Ecliptic obliquity =  $23^{\circ}26'19$ , Nutation = -  $0^{\circ}00'08$ , out-of-bounds declination in red Ayanamsha: Fagan/Bradley =  $25^{\circ}04'19$ , Lahiri =  $24^{\circ}11'20$ 

NOVEMBER 2023 00:00 UT

| Day  | Sid.t   | 0                 | D              | ğ               | φ              | ♂               | 4             | ħ              | )Å(    | ¥               | Р              | ß              | Ω              | Ç             | ę,             | Day  |
|------|---------|-------------------|----------------|-----------------|----------------|-----------------|---------------|----------------|--------|-----------------|----------------|----------------|----------------|---------------|----------------|------|
| W 1  | 2 40 6  | 8 <b>M</b> 17'51  | 18 <b>Ⅲ</b> 22 | 15 <b>M</b> .42 | 22 mg 5        | 13 <b>M</b> .34 | 10°R49        | 0°R31          | 21°R35 | 25°R14          | 28 <b>궁</b> 0  | 24°R51         | 24 <b>Y</b> 6  | 3 <b>m</b> 11 | 16°R46         | W 1  |
| T 2  | 2 44 3  | 9°17'51           | 19520          | 17°17           | 23° 9          | 14°15           | 10840         | 0 <b>)</b> €31 | 21833  | 25 <b>米</b> 13  | 28° 1          | 24 <b>Y</b> 49 | 24° 3          | 3°17          | 16 <b>Y</b> 43 | T 2  |
| F 3  | 2 47 59 | 10°17'53          | 13°57          | 18°50           | 24°12          | 14°57           | 10°32         | 0°31           | 21°30  | 25°12           | 28° 1          | 24°47          | 24° 0          | 3°24          | 16°41          | F 3  |
| S 4  | 2 51 56 | 11°17'58          | 26°17          | 20°24           | 25°16          | 15°38           | 10°24         | 0°D31          | 21°28  | 25°11           | 28° 2          | 24°45          | 23°57          | 3°31          | 16°38          | S 4  |
| S 5  | 2 55 52 | 12°18'04          | 8 <b>Ω</b> 22  | 21°57           | 26°20          | 16°20           | 10°16         | 0°31           | 21°25  | 25°10           | 28° 3          | 24°D45         | 23°54          | 3°37          | 16°36          | S 5  |
| M 6  | 2 59 49 | 13°18'12          | 20°18          | 23°29           | 27°24          | 17° 2           | 10° 8         | 0°31           | 21°23  | 25° 9           | 28° 3          | 24°45          | 23°50          | 3°44          | 16°34          | M 6  |
| T 7  | 3 3 46  | 14°18'23          | 2MD 9          | 25° 1           | 28°29          | 17°44           | 10° 0         | 0°31           | 21°20  | 25° 8           | 28° 4          | 24°46          | 23°47          | 3°51          | 16°31          | T 7  |
| W 8  | 3 7 42  | 15°18'35          | 14° 0          | 26°33           | 29°34          | 18°25           | 9°52          | 0°32           | 21°18  | 25° 7           | 28° 5          | 24°47          | 23°44          | 3°57          | 16°29          | W 8  |
| T 9  | 3 11 39 | 16°18'49          | 25°56          | 28° 5           | 0 <b>₽</b> 39  | 19° 7           | 9°43          | 0°32           | 21°16  | 25° 6           | 28° 6          | 24°49          | 23°41          | 4° 4          | 16°27          | T 9  |
| F 10 | 3 15 35 | 17°19'06          | 8 <b>亚</b> 0   | 29°36           | 1°45           | 19°49           | 9°35          | 0°33           | 21°13  | 25° 5           | 28° 7          | 24°50          | 23°38          | 4°11          | 16°24          | F 10 |
| S 11 | 3 19 32 | 18°19'24          | 20°17          | 1 <b>√</b> 6    | 2°51           | 20°31           | 9°27          | 0°33           | 21°11  | 25° 4           | 28° 7          | 24°R51         | 23°35          | 4°17          | 16°22          | S 11 |
| S 12 | 3 23 28 | 19°19'44          | 2ML49          | 2°37            | 3°57           | 21°13           | 9°20          | 0°34           | 21° 8  | 25° 3           | 28° 8          | 24°51          | 23°31          | 4°24          | 16°20          | S 12 |
| M13  | 3 27 25 | 20°20'06          | 15°37          | 4° 7            | 5° 3           | 21°55           | 9°12          | 0°35           | 21° 6  | 25° 3           | 28° 9          | 24°50          | 23°28          | 4°31          | 16°18          | M13  |
| T 14 | 3 31 21 | 21°20'30          | 28°41          | 5°36            | 6°10           | 22°38           | 9° 4          | 0°36           | 21° 3  | 25° 2           | 28°10          | 24°47          | 23°25          | 4°38          | 16°16          | T 14 |
| W15  | 3 35 18 | 22°20'56          | 12 <b>×7</b> 2 | 7° 5            | 7°17           | 23°20           | 8°56          | 0°37           | 21° 1  | 25° 1           | 28°11          | 24°43          | 23°22          | 4°44          | 16°14          | W15  |
| T 16 | 3 39 15 | 23°21'23          | 25°36          | 8°34            | 8°24           | 24° 2           | 8°48          | 0°38           | 20°58  | 25° 0           | 28°12          | 24°38          | 23°19          | 4°51          | 16°12          | T 16 |
| F 17 | 3 43 11 | 24°21'51          | 9 <b>궁</b> 23  | 10° 2           | 9°31           | 24°44           | 8°41          | 0°39           | 20°56  | 25° 0           | 28°13          | 24°34          | 23°16          | 4°58          | 16°10          | F 17 |
| S 18 | 3 47 8  | 25°22'21          | 23°18          | 11°30           | 10°39          | 25°27           | 8°33          | 0°41           | 20°53  | 24°59           | 28°14          | 24°30          | 23°12          | 5° 4          | 16° 8          | S 18 |
| S 19 | 3 51 4  | 26°22'52          | 7≈21           | 12°58           | 11°47          | 26° 9           | 8°26          | 0°42           | 20°51  | 24°58           | 28°15          | 24°27          | 23° 9          | 5°11          | 16° 6          | S 19 |
| M20  | 3 55 1  | 27°23'24          | 21°28          | 14°24           | 12°55          | 26°51           | 8°19          | 0°44           | 20°48  | 24°58           | 28°16          | 24°D26         | 23° 6          | 5°18          | 16° 4          | M20  |
| T 21 | 3 58 57 | 28°23'58          | 5 <b>)</b> 37  | 15°50           | 14° 3          | 27°34           | 8°11          | 0°45           | 20°46  | 24°57           | 28°18          | 24°26          | 23° 3          | 5°24          | 16° 2          | T 21 |
| W22  | 4 2 54  | 29°24'32          | 19°47          | 17°16           | 15°11          | 28°17           | 8° 4          | 0°47           | 20°43  | 24°57           | 28°19          | 24°27          | 23° 0          | 5°31          | 16° 0          | W22  |
| T 23 | 4 6 50  | 0 <b>≯</b> 25′08  | 3 <b>Υ</b> 56  | 18°41           | 16°20          | 28°59           | 7°57          | 0°49           | 20°41  | 24°56           | 28°20          | 24°28          | 22°56          | 5°38          | 15°58          | T 23 |
| F 24 | 4 10 47 | 1°25'45           | 18° 2          | 20° 5           | 17°28          | 29°42           | 7°51          | 0°51           | 20°38  | 24°56           | 28°21          | 24°R29         | 22°53          | 5°44          | 15°57          | F 24 |
| S 25 | 4 14 44 | 2°26'23           | 2 <b>8</b> 3   | 21°28           | 18°37          | 0 <b>才</b> 24   | 7°44          | 0°53           | 20°36  | 24°56           | 28°22          | 24°29          | 22°50          | 5°51          | 15°55          | S 25 |
| S 26 | 4 18 40 | 3°27'03           | 15°56          | 22°49           | 19°46          | 1° 7            | 7°37          | 0°55           | 20°33  | 24°55           | 28°24          | 24°27          | 22°47          | 5°58          | 15°53          | S 26 |
| M27  | 4 22 37 | 4°27'43           | 29°37          | 24°10           | 20°55          | 1°50            | 7°31          | 0°58           | 20°31  | 24°55           | 28°25          | 24°23          | 22°44          | 6° 4          | 15°52          | M27  |
| T 28 | 4 26 33 | 5°28'25           | 13 <b>II</b> 5 | 25°29           | 22° 5          | 2°33            | 7°24          | 1° 0           | 20°29  | 24°55           | 28°26          | 24°18          | 22°41          | 6°11          | 15°50          | T 28 |
| W29  | 4 30 30 | 6°29'09           | 26°16          | 26°47           | 23°14          | 3°16            | 7°18          | 1° 2           | 20°26  | 24°54           | 28°28          | 24°10          | 22°37          | 6°18          | 15°49          | W29  |
| T 30 | 4 34 26 | 7 <b>.7</b> 29'54 | 995 9          | 28 <b>∡</b> 3   | 24 <u>₽</u> 24 | 3 <b>∡</b> 759  | 7 <b>8</b> 12 | 1 <b>)</b> 5   | 20824  | 24 <b>) </b> 54 | 28 <b>궁</b> 29 | 24 <b>°</b> 2  | 22 <b>Y</b> 34 | 6 <b>m</b> 25 | 15 <b>Ƴ</b> 47 | T 30 |

| Day  | 0      | D         | ğ              | ρ                   | ♂¹           | 4           | ħ            | )Å(        | ¥             | Р              | រា   | ນ €        | ķ         |
|------|--------|-----------|----------------|---------------------|--------------|-------------|--------------|------------|---------------|----------------|------|------------|-----------|
|      | decl   | decl lat  | decl lat       | decl lat            | decl lat     | decl lat    | decl lat     | decl lat   | decl lat      | decl lat       | decl | decl decl  | decl lat  |
| W 1  | 14s16  | 27n 9 4n1 | 4 17s 2 0s3    | 1 3n41 0n36         | 15 s51 On 3  | 13n43 1 s25 | 12s55 1s44   | 17n51 0s19 | 3s 4 1s16     | 23 s15 2 s44   | 9n37 | 9n21 14n 4 | 7n58 1n30 |
| T 2  | 14 35  | 28 16 4 5 | 0 17 36 0 3    | 8 3 21 0 41         | 16 4 0 3     | 13 41 1 25  | 12 55 1 44   | 17 50 0 19 | 3 4 1 16      | 23 15 2 44     | 9 37 | 9 20 14 1  | 7 57 1 29 |
| F 3  | 14 54  | 27 51 5 1 | 0 18 8 0 4     | 4 3 0 0 46          | 16 17 0 2    | 13 38 1 25  | 12 55 1 44   | 17 50 0 19 | 3 4 1 16      | 23 14 2 44     | 9 36 | 9 19 13 58 | 7 56 1 29 |
| S 4  | 15 13  | 26 4 5 1  | 6 18 40 0 5    | 1 2 39 0 50         | 16 30 0 2    | 13 36 1 25  | 12 55 1 44   | 17 49 0 19 | 3 5 1 16      | 23 14 2 44     | 9 35 | 9 17 13 55 | 7 55 1 29 |
| S 5  | 15 32  | 23 6 5    | 7 19 10 0 5    | 7 2 18 0 55         | 16 42 0 1    | 13 34 1 25  | 12 55 1 44   | 17 48 0 19 | 3 5 1 16      | 23 14 2 44     | 9 35 | 9 16 13 52 | 7 54 1 29 |
| M 6  | 15 50  | 19 13 4 4 | 5 19 40 1      | 3 1 56 0 59         | 16 55 0 0    | 13 31 1 24  | 12 55 1 44   | 17 48 0 19 | 3 6 1 16      | 23 14 2 44     | 9 35 | 9 15 13 49 | 7 53 1 29 |
| T 7  | 16 8   | 14 37 4 1 | 1 20 9 1 10    | 0 1 35 1 4          | 17 7 0s 0    | 13 29 1 24  | 12 54 1 44   | 17 47 0 19 | 3 6 1 16      | 23 14 2 44     | 9 35 | 9 14 13 46 | 7 52 1 29 |
| W 8  | 16 26  | 9 28 3 2  | 7 20 37 1 10   | 6 1 13 1 8          | 17 19 0 1    | 13 26 1 24  | 12 54 1 44   | 17 47 0 19 | 3 6 1 16      | 23 14 2 44     | 9 36 | 9 13 13 43 | 7 51 1 29 |
| T 9  | 16 43  | 3 57 2 3  | 3 21 3 1 22    | 2 0 50 1 12         | 17 31 0 1    | 13 24 1 24  | 12 54 1 44   | 17 46 0 19 | 3 7 1 16      | 23 14 2 44     | 9 37 | 9 12 13 40 | 7 50 1 29 |
| F 10 | 17 0   | 1 s46 1 3 | 2 21 29 1 2    | 7 0 28 1 16         | 17 43 0 2    | 13 21 1 24  | 12 54 1 43   | 17 45 0 19 | 3 7 1 16      | 23 13 2 45     | 9 37 | 9 10 13 37 | 7 49 1 29 |
| S 11 | 17 17  | 7 32 0 2  | 5 21 54 1 3    | 3 0 5 1 20          | 17 55 0 3    | 13 19 1 24  | 12 53 1 43   | 17 45 0 19 | 3 7 1 16      | 23 13 2 45     | 9 37 | 9 9 13 34  | 7 48 1 28 |
| S 12 | 17 34  | 13 8 0s4  | 4 22 17 1 3    | 8 0s18 1 23         | 18 7 0 3     | 13 17 1 24  | 12 53 1 43   | 17 44 0 19 | 3 8 1 16      | 23 13 2 45     | 9 37 | 9 8 13 31  | 7 47 1 28 |
| M13  | 17 50  |           |                | 4 0 41 1 27         | 18 18 0 4    | _           | -            | 17 43 0 19 | 3 8 1 16      | 23 13 2 45     | 9 37 | 9 7 13 28  | 7 46 1 28 |
| T 14 | 18 6   |           |                |                     |              |             |              | 17 43 0 19 |               |                | 9 36 | 9 6 13 25  | 7 45 1 28 |
| W15  | 18 21  | 26 2 3 5  | 0 23 21 1 5    |                     |              | 13 10 1 23  |              | 17 42 0 19 | 3 8 1 16      | 23 13 2 45     | 9 34 | 9 5 13 22  | 7 44 1 28 |
| T 16 | 18 37  |           | 3 23 40 1 5    |                     |              |             |              | 17 41 0 19 |               |                | 9 33 | 9 3 13 19  | 7 43 1 28 |
| F 17 | 18 52  |           |                | 2   2   15   1   40 |              |             |              | 17 41 0 19 |               |                | 9 31 | 9 2 13 16  | 7 42 1 28 |
| S 18 | 19 6   | 26 33 5 1 | 2 24 15 2      | 7 2 38 1 43         | 19 14 0 7    | 13 3 1 23   | 12 50 1 42   | 17 40 0 19 | 3 9 1 16      | 23 12 2 45     | 9 30 | 9 1 13 13  | 7 41 1 28 |
| S 19 | 19 21  | 23 20 5   | 4 24 30 2 10   | 0 3 2 1 45          | 19 25 0 7    | 10 1 1 20   | - 1          | 17 39 0 19 | 3 9 1 16      | 23 12 2 45     | 9 29 | 9 0 13 10  |           |
| M20  |        | -         | 8 24 45 2 1    |                     |              | 12 58 1 22  |              | 17 39 0 19 |               | -              | 9 28 | 8 59 13 7  | 7 40 1 27 |
| T 21 | 19 48  |           | 5 24 57 2 1    |                     |              | 12 56 1 22  |              | 17 38 0 19 |               | -              | 9 28 | 8 58 13 4  | 7 39 1 27 |
| W22  | 20 1   |           | 8 25 9 2 20    |                     |              | 12 54 1 22  |              | 17 38 0 19 |               | -              | 9 28 | 8 56 13 1  | 7 38 1 27 |
| T 23 | 20 14  |           | 0 25 19 2 23   |                     |              | 12 52 1 22  |              | 17 37 0 19 |               |                | 9 29 | 8 55 12 58 | 7 37 1 27 |
| F 24 | 20 27  |           | 5 25 28 2 24   |                     |              | 12 50 1 22  |              | 17 36 0 19 |               | -              | 9 29 | 8 54 12 55 | 7 36 1 27 |
| S 25 | 20 39  | 12 50 0n4 | 1 25 36 2 20   | 6 5 27 1 59         | 20 25 0 11   | 12 48 1 21  | 12 45 1 42   | 17 36 0 19 | 3 10 1 16     | 23 10 2 45     | 9 29 | 8 53 12 52 | 7 36 1 27 |
| S 26 |        |           | 4 25 42 2 2    |                     |              | 12 46 1 21  |              | 17 35 0 19 |               | 23 10 2 45     | 9 29 | 8 52 12 49 |           |
| M27  | 21 2   |           | 9 25 46 2 28   |                     |              | 12 44 1 21  |              |            |               |                | 9 27 | 8 50 12 46 | 7 34 1 26 |
| _    | 21 13  |           | 3 25 50 2 2    |                     |              | 12 43 1 21  |              | 17 34 0 19 |               | 23 10 2 45     | 9 25 | 8 49 12 43 | 7 33 1 26 |
| W29  | _      |           | 3 25 52 2 23   |                     |              | 12 41 1 20  |              | 17 33 0 19 | -             |                | 9 22 | 8 48 12 40 | 7 33 1 26 |
| T 30 | 21 s34 | 28n 5 4n5 | 8 25 s52 2 s2° | 7 7 s29 2n 8        | 21 s10 0 s14 | 12n39 1 s20 | 12 s40 1 s41 | 17n33 0s19 | 3 s 1 1 s 1 5 | 23 s 9 2 s 4 5 | 9n20 | 8n47 12n37 | 7n32 1n26 |

Julian Day Number = 2460249.5, Delta T = 69.11 sec Ecliptic obliquity = 23°26'19, Nutation = -0°00'08, out-of-bounds declination in red Ayanamsha: Fagan/Bradley = 25°04'24, Lahiri = 24°11'24

DECEMBER 2023 00:00 UT

| Day  | Sid.t   | 0                 | D              | ğ               | ·              | ♂ <sup>™</sup> | 4            | ħ            | )મ(    | 并               | В              | S.             | v              | Ç             | Ŗ              | Day  |
|------|---------|-------------------|----------------|-----------------|----------------|----------------|--------------|--------------|--------|-----------------|----------------|----------------|----------------|---------------|----------------|------|
| F 1  | 4 38 23 | 8 <b>~</b> 30'40  | 219545         | 29 <b>×</b> 17  | 25 <b>♀</b> 34 | 4 <b>₹</b> 42  | 7°R 6        | 1 <b>)</b> 8 | 20°R22 | 24°R54          | 28 <b>궁</b> 30 | 23°R55         | 22 <b>Y</b> 31 | 6 <b>m</b> 31 | 15°R46         | F 1  |
| S 2  | 4 42 20 | 9°31'28           | 4 <b>N</b> 5   | 0 <b>궁</b> 28   | 26°44          | 5°25           | 7 <b>と</b> 1 | 1°11         | 20819  | 24 <b>) </b> 54 | 28°32          | 23 <b>Y</b> 48 | 22°28          | 6°38          | 15 <b>Y</b> 44 | S 2  |
| S 3  | 4 46 16 | 10°32'17          | 16°10          | 1°36            | 27°54          | 6° 8           | 6°55         | 1°13         | 20°17  | 24°54           | 28°33          | 23°43          | 22°25          | 6°45          | 15°43          | S 3  |
| M 4  | 4 50 13 | 11°33'07          | 28° 6          | 2°42            | 29° 5          | 6°51           | 6°50         | 1°16         | 20°15  | 24°53           | 28°34          | 23°39          | 22°22          | 6°51          | 15°42          | M 4  |
| T 5  | 4 54 9  | 12°33'58          | 9 <b>₯</b> 57  | 3°44            | 0 <b>M</b> _15 | 7°34           | 6°44         | 1°19         | 20°12  | 24°53           | 28°36          | 23°D38         | 22°18          | 6°58          | 15°41          | T 5  |
| W 6  | 4 58 6  | 13°34'51          | 21°47          | 4°41            | 1°26           | 8°17           | 6°39         | 1°23         | 20°10  | 24°53           | 28°37          | 23°38          | 22°15          | 7° 5          | 15°39          | W 6  |
| T 7  | 5 2 2   | 14°35'46          | 3 <b>≏</b> 42  | 5°34            | 2°36           | 9° 1           | 6°34         | 1°26         | 20° 8  | 24°D53          | 28°39          | 23°40          | 22°12          | 7°11          | 15°38          | T 7  |
| F 8  | 5 5 5 9 | 15°36'41          | 15°48          | 6°21            | 3°47           | 9°44           | 6°30         | 1°29         | 20° 6  | 24°53           | 28°40          | 23°41          | 22° 9          | 7°18          | 15°37          | F 8  |
| S 9  | 5 9 55  | 16°37'38          | 28° 8          | 7° 2            | 4°58           | 10°27          | 6°25         | 1°33         | 20° 4  | 24°53           | 28°42          | 23°R41         | 22° 6          | 7°25          | 15°36          | S 9  |
| S 10 | 5 13 52 | 17°38'36          | 10 <b>M</b> 47 | 7°37            | 6° 9           | 11°11          | 6°21         | 1°36         | 20° 1  | 24°54           | 28°43          | 23°39          | 22° 2          | 7°31          | 15°35          | S 10 |
| M11  | 5 17 49 | 18°39'35          | 23°48          | 8° 3            | 7°21           | 11°54          | 6°17         | 1°40         | 19°59  | 24°54           | 28°45          | 23°35          | 21°59          | 7°38          | 15°34          | M11  |
| T 12 | 5 21 45 | 19°40'35          | 7 <b>₹</b> 12  | 8°21            | 8°32           | 12°38          | 6°13         | 1°43         | 19°57  | 24°54           | 28°47          | 23°29          | 21°56          | 7°45          | 15°33          | T 12 |
| W13  | 5 25 42 | 20°41'37          | 20°57          | 8°R29           | 9°43           | 13°21          | 6° 9         | 1°47         | 19°55  | 24°54           | 28°48          | 23°20          | 21°53          | 7°51          | 15°33          | W13  |
| T 14 | 5 29 38 | 21°42'39          | 4 <b>궁</b> 59  | 8°27            | 10°55          | 14° 5          | 6° 5         | 1°51         | 19°53  | 24°54           | 28°50          | 23°10          | 21°50          | 7°58          | 15°32          | T 14 |
| F 15 | 5 33 35 | 22°43'42          | 19°15          | 8°14            | 12° 7          | 14°49          | 6° 2         | 1°55         | 19°51  | 24°55           | 28°51          | 23° 0          | 21°47          | 8° 5          | 15°31          | F 15 |
| S 16 | 5 37 31 | 23°44'45          | 3≈39           | 7°49            | 13°18          | 15°33          | 5°59         | 1°59         | 19°49  | 24°55           | 28°53          | 22°51          | 21°43          | 8°11          | 15°31          | S 16 |
| S 17 | 5 41 28 | 24°45'49          | 18° 3          | 7°13            | 14°30          | 16°16          | 5°56         | 2° 3         | 19°47  | 24°55           | 28°55          | 22°44          | 21°40          | 8°18          | 15°30          | S 17 |
| M18  | 5 45 24 | 25°46'53          | 2 <b>)</b> 24  | 6°25            | 15°42          | 17° 0          | 5°53         | 2° 7         | 19°45  | 24°56           | 28°56          | 22°39          | 21°37          | 8°25          | 15°29          | M18  |
| T 19 | 5 49 21 | 26°47'57          | 16°38          | 5°27            | 16°54          | 17°44          | 5°50         | 2°12         | 19°44  | 24°56           | 28°58          | 22°37          | 21°34          | 8°32          | 15°29          | T 19 |
| W20  | 5 53 18 | 27°49'02          | 0 <b>Υ</b> 43  | 4°19            | 18° 6          | 18°28          | 5°48         | 2°16         | 19°42  | 24°56           | 29° 0          | 22°D36         | 21°31          | 8°38          | 15°29          | W20  |
| T 21 | 5 57 14 | 28°50'07          | 14°38          | 3° 4            | 19°18          | 19°12          | 5°45         | 2°21         | 19°40  | 24°57           | 29° 2          | 22°37          | 21°28          | 8°45          | 15°28          | T 21 |
| F 22 | 6 111   | 2 <u>9</u> °51'12 | 28°23          | 1°44            | 20°30          | 19°56          | 5°43         | 2°25         | 19°38  | 24°57           | 29° 3          | 22°R37         | 21°24          | 8°52          | 15°28          | F 22 |
| S 23 | 6 5 7   | 0 <b>る</b> 52'18  | 11859          | 0°22            | 21°43          | 20°40          | 5°42         | 2°30         | 19°37  | 24°58           | 29° 5          | 22°35          | 21°21          | 8°58          | 15°28          | S 23 |
| S 24 | 6 9 4   | 1°53'23           | 25°25          | 28 <b>×</b> 759 | 22°55          | 21°24          | 5°40         | 2°34         | 19°35  | 24°59           | 29° 7          | 22°31          | 21°18          | 9° 5          | 15°27          | S 24 |
| M25  | 6 13 0  | 2°54'30           | 8 <b>Ⅱ</b> 42  | 27°40           | 24° 8          | 22° 8          | 5°39         | 2°39         | 19°33  | 24°59           | 29° 9          | 22°24          | 21°15          | 9°12          | 15°27          | M25  |
| T 26 | 6 16 57 | 3°55'36           | 21°47          | 26°27           | 25°20          | 22°52          | 5°38         | 2°44         | 19°32  | 25° 0           | 29°10          | 22°14          | 21°12          | 9°18          | 15°27          | T 26 |
| W27  | 6 20 53 | 4°56'43           | 49540          | 25°20           | 26°33          | 23°37          | 5°37         | 2°49         | 19°30  | 25° 1           | 29°12          | 22° 2          | 21° 8          | 9°25          | 15°D27         | W27  |
| T 28 | 6 24 50 | 5°57'50           | 17°21          | 24°23           | 27°45          | 24°21          | 5°36         | 2°54         | 19°29  | 25° 1           | 29°14          | 21°48          | 21° 5          | 9°32          | 15°27          | T 28 |
| F 29 | 6 28 47 | 6°58'57           | 29°48          | 23°36           | 28°58          | 25° 5          | 5°35         | 2°59         | 19°27  | 25° 2           | 29°16          | 21°35          | 21° 2          | 9°38          | 15°27          | F 29 |
| S 30 | 6 32 43 | 8° 0'04           | 12 <b>N</b> 2  | 22°59           | 0 <b>,7</b> 11 | 25°50          | 5°35         | 3° 4         | 19°26  | 25° 3           | 29°18          | 21°22          | 20°59          | 9°45          | 15°27          | S 30 |
| S 31 | 6 36 40 | 9ට 1'12           | 24 <b>N</b> 5  | 22 <b>×</b> 33  | 1 <b>∡</b> 724 | 26 <b>×</b> 34 | 5°D35        | 3 <b>∺</b> 9 | 19824  | 25 <b>∺</b> 4   | 29 <b>궁</b> 20 | 21 <b>Y</b> 12 | 20 <b>Y</b> 56 | 9 <b>m</b> 52 | 15 <b>Y</b> 28 | S 31 |

| Day  | 0  | D   | ğ  | φ   | ð  | 4  | ħ   | )મ(  | 卉   | Р  | U  | v t  | , k   |
|--|--|---|--|---|--|--|---|--|---|--|--|--|---|
|  | decl   | decl lat  | decl lat   | decl lat  | decl lat   | decl lat   | decl lat  | decl lat   | decl lat  | decl lat   | decl   | decl decl  | decl lat  |
| F 1<br>S 2   | 21 s43<br>21 53                                    |   | 25 s51 2 s2<br>25 49 2 2                                   |   |  | 12n37 1 s20<br>12 36 1 20  |   | 17n32 0s19<br>17 31 0 19   | 3 s11 1 s15<br>3 11 1 15  | 23 s 9 2 s 4 5 2 3 9 2 4 5   | 9n17<br>9 14   | 8n46 12n34<br>8 45 12 30   | 7n31 1n26<br>7 31 1 26  |
| S 3<br>M 4<br>T 5<br>W 6<br>T 7                            | 22 2<br>22 10<br>22 18<br>22 26<br>22 33           | 16 7 4 15<br>11 8 3 33<br>5 46 2 43   | 25 34 2<br>25 26 2   | 16 9 5 2 12<br>11 9 29 2 13<br>5 9 53 2 14                      | 21 43 0 16<br>21 51 0 17<br>21 59 0 18   | 12 33 1 19<br>12 31 1 19<br>12 30 1 19                             | 12 35 1 41<br>12 34 1 41<br>12 33 1 40  | 17 30 0 19   | 3 11 1 15<br>3 11 1 15<br>3 11 1 15<br>3 11 1 15<br>3 11 1 15                           | 23 8 2 45<br>23 8 2 45<br>23 8 2 45  | 9 12<br>9 11<br>9 11<br>9 11<br>9 11                         | 8 43 12 27<br>8 42 12 24<br>8 41 12 21<br>8 40 12 18<br>8 39 12 15   | 7 29 1 25<br>7 29 1 25  |
| F 8<br>S 9   | 22 40<br>22 46                                     |   | 25 7 1 2<br>24 56 1 4                                      |   |  |  |   | 17 28 0 19<br>17 27 0 19   | 3 11 1 15<br>3 11 1 15  |  | 9 12<br>9 12   | 8 37 12 12<br>8 36 12 9  |   |
| S 10<br>M11<br>T 12<br>W13<br>T 14<br>F 15<br>S 16         | 22 57<br>23 2<br>23 7<br>23 11<br>23 14            | 21 13 2 34<br>24 59 3 31<br>27 24 4 17<br>28 9 4 49<br>27 3 5 3               | 24 2 0 :<br>23 46 0 :                                      | 19 11 49 2 16 6 12 12 2 16 52 12 35 2 16 36 12 57 2 16          | 22 33 0 21<br>22 40 0 21<br>22 46 0 22<br>22 52 0 22<br>22 57 0 23               | 12 24 1 17<br>12 23 1 17<br>12 22 1 17<br>12 21 1 17<br>12 20 1 16 | 12 26 1 40<br>12 25 1 40<br>12 23 1 40<br>12 22 1 40<br>12 20 1 40            | 17 27 0 19<br>17 26 0 19<br>17 26 0 19<br>17 25 0 19<br>17 25 0 19<br>17 24 0 19<br>17 24 0 19 | 3 11 1 15<br>3 11 1 15<br>3 10 1 15 | 23 6 2 45<br>23 6 2 45<br>23 6 2 45<br>23 5 2 45<br>23 5 2 45              | 9 11<br>9 10<br>9 7<br>9 4<br>9 0<br>8 57<br>8 53            | 8 35 12 6<br>8 34 12 3<br>8 33 12 0<br>8 32 11 57<br>8 30 11 53<br>8 29 11 50<br>8 28 11 47                | 7 26 1 24<br>7 25 1 24<br>7 25 1 24<br>7 24 1 24  |
| S 17<br>M18<br>T 19<br>W20<br>T 21<br>F 22<br>S 23         | 23 22<br>23 24<br>23 25<br>23 26                   | 14 16 3 54<br>8 2 2 59<br>1 27 1 54<br>5n 7 0 42<br>11 23 0n31                | 22 39 0 3<br>22 22 0 3<br>22 4 1<br>21 47 1 3<br>21 30 1 3 | 58 14 45 2 13<br>18 15 6 2 13                                   | 23 13 0 25<br>23 18 0 25<br>23 22 0 26<br>23 26 0 27<br>23 30 0 27               | 12 18 1 15<br>12 17 1 15<br>12 17 1 15                             | 12 16 1 39<br>12 14 1 39<br>12 12 1 39<br>12 11 1 39<br>12 9 1 39             | 17 23 0 19<br>17 23 0 19<br>17 22 0 19<br>17 22 0 19<br>17 21 0 19<br>17 21 0 19<br>17 20 0 19 | 3 9 1 15<br>3 9 1 15  | 23 4 2 45<br>23 4 2 45<br>23 3 2 45<br>23 3 2 45<br>23 3 2 46              | 8 50<br>8 49<br>8 48<br>8 48<br>8 48<br>8 47                 | 8 27 11 44<br>8 26 11 41<br>8 24 11 38<br>8 23 11 35<br>8 22 11 32<br>8 21 11 29<br>8 20 11 25             | 7 23 1 23<br>7 23 1 23<br>7 22 1 23<br>7 22 1 23<br>7 22 1 23                           |
| S 24<br>M25<br>T 26<br>W27<br>T 28<br>F 29<br>S 30<br>S 31 | 23 24<br>23 23<br>23 21<br>23 18<br>23 15<br>23 12 | 25 21 3 39<br>27 30 4 20<br>28 8 4 47<br>27 16 5 0<br>25 2 4 58<br>21 41 4 42 | 20 33 2 2<br>20 24 2 2<br>20 16 3<br>20 11 3<br>20 8 3     | 40 16 44 2 8 50 17 3 2 6 58 17 21 2 5 3 17 39 2 3 6 17 57 2 2 2 | 23 41 0 29<br>23 44 0 30<br>23 47 0 30<br>23 50 0 31<br>23 52 0 31<br>23 54 0 32 | 12 15 1 12<br>12 15 1 12   | 12 4 1 39<br>12 2 1 39<br>12 0 1 38<br>11 58 1 38<br>11 56 1 38<br>11 54 1 38 |  | 3 8 1 14<br>3 8 1 14<br>3 7 1 14<br>3 7 1 14<br>3 7 1 14<br>3 6 1 14                    | 23 2 2 46<br>23 1 2 46<br>23 1 2 46<br>23 1 2 46<br>23 1 2 46<br>23 0 2 46 | 8 46<br>8 43<br>8 39<br>8 35<br>8 30<br>8 25<br>8 20<br>8n16 | 8 18 11 22<br>8 17 11 19<br>8 16 11 16<br>8 15 11 13<br>8 14 11 10<br>8 13 11 7<br>8 11 11 3<br>8n10 11n 0 | 7 21 1 22<br>7 20 1 22 |

 $\label{eq:Julian Day Number = 2460279.5, Delta\ T=69.11\ sec} \\ Ecliptic\ obliquity = 23°26'18, Nutation = -0°00'07, out-of-bounds\ declination\ in\ red \\$