

## Chapter 1

1-1. How long does it take the Earth to orbit the Sun?

- a.) one sidereal day
- b.) one month
- c.) one year **X**
- d.) one hour

1-2. What is the name given to the path of the Sun as seen from Earth?

- a.) Equinox
- b.) Celestial equator
- c.) Solstice
- d.) Ecliptic **X**

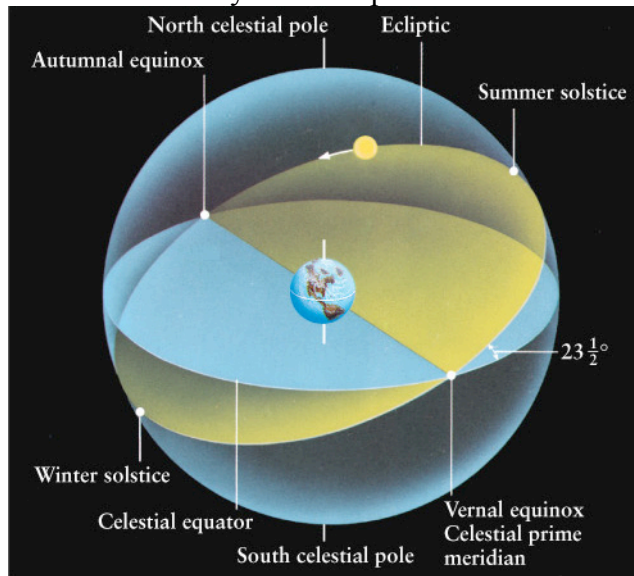
1-3. What is the name given to the path of the Earth as seen from the Sun?

- a.) Equinox
- b.) Celestial equator
- c.) Solstice
- d.) Ecliptic **X**

1-4. The ecliptic is best described as a(n):

- a.) hollow sphere
- b.) solid sphere
- c.) plane **X**
- d.) square

1-5. How many months apart are Winter Solstice and the Vernal Equinox?



- a.) 1 month
- b.) 3 months **X**
- c.) 4 months
- d.) 6 months

1-6. Over what place on Earth is the Sun on the Autumnal equinox?

- a.) the North Pole
- b.) London
- c.) the South Pole
- d.) the equator **X**

1-7. In which one of the following phases do we see half of the Moon's dark side?

- a.) first quarter **X**
- b.) waning gibbous
- c.) full moon
- d.) new moon

1-8. During a total solar eclipse, which occurs?



- a.) the Moon moves through the Earth's umbra
- b.) the Moon's umbra touches the Earth **X**
- c.) the Moon passes just outside the Earth's umbra
- d.) the Moon's umbra just misses the Earth

1-9. During what phase does a solar eclipse occur?

- a.) first quarter
- b.) new **X**
- c.) waning crescent
- d.) full

1-10. True or False: Constellations look the same from everywhere in the galaxy.

- a.) True
- b.) False **X**

- 1-11. When you are facing Polaris you are...
- a.) ...looking at the brightest star in the sky.
  - b.) ...facing directly north. **X**
  - c.) ...looking at the “Big Dipper”.
  - d.) ...facing directly south.
- 1-12. Astronomers use the word constellation to describe...
- a.) ...only the pattern of stars that we see on the sky.
  - b.) ...an entire region of the sky and all objects in that region. **X**
  - c.) ...a clustering of stars, meaning that all stars that belong to the constellation are physically close to each other in space.
  - d.) ...collectively, all of the bright stars on the sky.
- 1-13. What type of motion leads to the Sun rising and setting?
- a.) Earth’s rotation **X**
  - b.) Earth’s revolution
  - c.) The Sun’s revolution
  - d.) The Sun’s rotation
- 1-14. What type of motion leads to stars rising approximately 4 minutes earlier each day than it did the day before?
- a.) Earth’s rotation
  - b.) Earth’s revolution **X**
  - c.) The Sun’s revolution
  - d.) The Sun’s rotation
- 1-15. True or False: Every star in the night sky, regardless of your location, will rise and set.
- a.) True
  - b.) False **X**
- 1-16. If you went out at night and every star in the sky rose and set, except for Polaris, where would you be?
- a.) The north pole
  - b.) The south pole
  - c.) The equator **X**
  - d.) 45° north latitude
- 1-17. How long is an average solar day?
- a.) 24 hours **X**
  - b.) 23 hours, 56 minutes
  - c.) 12 hours
  - d.) 24 hours, 4 minutes
- 1-18. How long is a sidereal day?

- a.) 24 hours
- b.) 23 hours, 56 minutes X
- c.) 12 hours
- d.) 24 hours, 4 minutes

1-19. What is the term that describes the changes in the direction in which the Earth's axis of rotation points?

- a.) Precession X
- b.) Perpendicular
- c.) Equatorial bulge
- d.) Gravitation

1-20. True or False: Polaris will not always be the pole star.

- a) True X
- b) False

1-21. Which term describes the time it takes the Moon to complete one full orbit of 360° around the Earth?

- a.) Sidereal month
- b.) Year
- c.) Lunar month X
- d.) Solar month

1-22. True or False: Eclipses occur at every new and full Moon.

- a) True
- b) False X

1-23. What is the name for the part of a shadow that only blocks some of the light from the Sun?

- a.) Eclipse
- b.) Umbra
- c.) Penumbra X
- d.) Corona

1-24. Where are the stars located with respect to the Celestial Sphere?

- a.) beyond the outside surface of the sphere
- b.) between the inside surface of the sphere and its center
- c.) on the inside surface of the sphere X
- d.) at the center of the sphere

1-25. How many astronomical zodiac constellations are there?

- a.) 12
- b.) 13 X
- c.) 52
- d.) 88

1-26. What is the brightest star in the night sky?

- a.) Polaris (the north star)
- b.) Sirius **X**
- c.) Vega
- d.) Arcturus

1-27. How many constellations are there?

- a.) 12
- b.) 13
- c.) 88 **X**
- d.) 110

1-28. Where is the ecliptic as seen from the Earth?

- a.) directly over the Earth's north pole
- b.) directly over the Earth's south pole
- c.) directly over the Earth's equator
- d.) tilted at a  $23\frac{1}{2}^{\circ}$  angle compared to the celestial equator \*

1-29. Constellations that never set are called:



- a.) zodiac
- b.) ecliptic
- c.) polar
- d.) circumpolar **X**

1-30. The spinning of the Earth is called:

- a.) revolution.
- b.) rotation. **X**
- c.) prograde motion.
- d.) retrograde motion.