PHYS 1051. Planetary Astronomy

Quiz 1 Review Questions.

1. T or F. All of the constellation names originated with the ancient Greeks (roughly 600-0 BC).
2. T or F. Other than the Milky Way, no galaxies are visible to the naked eye from Earth.
3. T or F. The video "Powers of 10" has nothing to do with cosmology.
4. T or F. The nearest star to the Sun is about 10 times farther away than Pluto.
5. (2pt) Answer at least two of the following from the "Powers of 10" video.
   (a) the largest scale shown, in meters. _____
   (b) the smallest scale shown, in meters. _____
   (c) the ratio of the largest to the smallest scale. _____
   (d) the thing that was about 2 light-seconds across? _____
6. Which representation of the sky will have the greatest distortions?
   (a) a star map poster showing the entire sky
   (b) a star atlas page showing a 15 X 15 ° region
   (c) a celestial sphere globe
   (d) a planetarium
7. Which planet is the brightest as seen from Earth? (Don't include Earth, and just consider maximum brightnesses.)
8. A _____ _____ is a model of the sky that can show rising and setting motions but it fails to represent the distances to stars.
   (a) cardinal pointer
   (b) night sky
   (c) celestial equator
   (d) astronomical twilight
   (e) celestial sphere
9. Ancient skywatchers concluded that the stars were attached to a _____ _____, a canopy of stars resembling an astronomical painting.
   (a) celestial sphere
   (b) night sky
   (c) daytime sky
   (d) astronomical twilight
10. What is the name of the planetarium program that Pinkney keeps telling you to get?
    _____

11. (2pts) Put these objects in order from smallest to largest: ___ ___ ___ ___ ___ ___

    (a) a cluster of galaxies
    (b) the Milky Way
    (c) human being
    (d) Earth
    (e) a supercluster of galaxies
    (f) a neutron star

12. (2pts) Put these things in order from smallest to largest: ___ ___ ___ ___ ___ ___

    (a) the distance between stars
    (b) a supercluster of galaxies
    (c) radius of Neptune's orbit
    (d) human being
    (e) distance to Sun
    (f) Cosmic Microwave Background

13. (1pt) Name one of the asterisms in the Constellation Taurus.

14. What unit is the most practical for measuring distances between galaxies?

    (a) the astronomical unit (AU)
    (b) the parcsec (pc)
    (c) the light year (LY)
    (d) the kilometer (km)
    (e) the megaparsec (Mpc)

15. What unit is the most practical for measuring distances between planets in the solar system?

    (a) AU (b) pc (b) LY (b) km (b) Mpc

16. What unit is the most practical for measuring distances to nearby stars?

    (a) the light year
    (b) the Astronomical Unit
    (c) the micrometer
    (d) the kilometer
    (e) the meter

17. Which of these was **not** the title of a subsection in Chapter 1?

    (a) Earth's Orbital Motion
    (b) Planet formation
    (c) Our place in Space
    (d) Scientific Theory and the Scientific Method
    (e) The Obvious View

18. What is the brightest star in the nighttime sky? _____

19. What is the brightest star in the sky? _____

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    (a) Earth's Orbital Motion
    (b) Planet formation
    (c) Our place in Space
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21. What process can be simplified into these three steps: Observation, Theory, and Prediction? The _____ _____.

22. (1pt) What are two qualities of a good theory?

    _____
    _____.

23. The height of an adult human is about 10^x meters, where x = _____

    (a) -2 (b) 0 (c) 1 (d) 2 (e) 5

24. Write this number in scientific notation: 2,540,000 = _____

25. Write this number in scientific notation: 93×10^6 = _____