

## ES - Quiz #3 - Chpt 30

## Multiple Choice

Identify the choice that best completes the statement or answers the question.

- \_\_\_ 1. What color are the coolest stars?  
a. orange  
b. blue  
c. white  
d. red
- \_\_\_ 2. Stars appear to move in the sky because  
a. the sky is rotating.  
b. Earth is moving.  
c. the universe is expanding.  
d. galaxies are forming.
- \_\_\_ 3. A star moving away from the Earth has a spectrum that is  
a. losing its color.  
b. shifted toward blue.  
c. shifted toward red.  
d. unchanged.
- \_\_\_ 4. Scientists determine the composition and temperature of stars  
a. by sampling matter on the surface of stars.  
b. by analyzing the vibrations that stars emit.  
c. through magnetic testing.  
d. by analyzing the spectra of the light that stars emit.
- \_\_\_ 5. A small, hot, extremely dense core left after a star collapses is a  
a. red giant.  
b. pulsar.  
c. black dwarf.  
d. white dwarf.
- \_\_\_ 6. During the main sequence stage, how is energy generated in a star's core?  
a. Hydrogen fuses into helium.  
b. Carbon fuses into hydrogen.  
c. Helium fuses into hydrogen.  
d. Carbon fuses into oxygen.
- \_\_\_ 7. After its temperature rises to 10,000,000°C, a protostar becomes a star when  
a. nuclear fusion ends.  
b. nuclear fusion begins.  
c. nuclear fission begins.  
d. nuclear fission ends.
- \_\_\_ 8. What are binary stars?  
a. stars like the sun and Earth  
b. pairs of stars held motionless by gravity  
c. pairs of revolving stars held together by gravity  
d. stars with two poles
- \_\_\_ 9. What is a galaxy?  
a. stars, dust, and gas bound together by gravity  
b. debris, dirt, and trash bound together by gravity  
c. air, gas, and rock in the universe  
d. planets, moons, and stars bound together by magnetism
- \_\_\_ 10. What type of galaxy is the Milky Way?  
a. elliptical  
b. spherical  
c. irregular  
d. spiral

- \_\_\_ 11. What is a quasar?  
a. quasi-stellar radio source  
b. quad-stellar radiation source  
c. quasi-super reality source  
d. quasi-sterile rally source
- \_\_\_ 12. What is a light-year?  
a. the distance light travels in a year  
b. the speed of light in a year  
c. the time it takes to travel to a star  
d. the distance to the sun
- \_\_\_ 13. What makes up most of the universe?  
a. known elements  
b. black holes  
c. dark energy and dark matter  
d. the dark force
- \_\_\_ 14. What is absolute magnitude?  
a. the brightness of the moon as it appears from Earth  
b. the brightness of a star as it appears from Earth  
c. the true brightness of a star  
d. the numerical size of a star
- \_\_\_ 15. What are constellations?  
a. recognizable groups of galaxies and the regions of space surrounding them  
b. apparently fixed, recognizable patterns of stars and the regions of space around them  
c. patterns of stars and galaxies that can be identified with color spectra  
d. groups of stars that can only be distinguished with special equipment
- \_\_\_ 16. The observed change in the frequency of a wave when either the source or observer is moving is known as  
a. parallax.  
b. absorption spectra.  
c. Doppler shift.  
d. apparent magnitude.
- \_\_\_ 17. A spiral galaxy has a nucleus of  
a. dim stars, and spiral arms consisting of billions of young stars.  
b. bright stars, and spiral arms consisting of billions of young stars.  
c. bright stars, and spiral arms consisting of billions of old stars.  
d. dim stars, and spiral arms consisting of billions of old stars.
- \_\_\_ 18. When the outward force due fusion and radiation balances with the inward force of gravity a star is said to be experiencing  
a. parallax.  
b. stasis.  
c. a nova.  
d. equilibrium.
- \_\_\_ 19. What did Hubble discover in the 1920s?  
a. red shift in spectra of galaxies  
b. blue shift in spectra of galaxies  
c. the existence of black holes  
d. the existence of giant stars
- \_\_\_ 20. A rapidly spinning neutron star that emits bursts of radio and optical energy is a  
a. supernova.  
b. red giant.  
c. black hole.  
d. pulsar.