

Name: _____

Date: _____ Period: _____

Midterm Review

The Physical Setting: Earth Science

Midterm Review: Astronomy

1. Which evidence best supports the theory that the universe was created by an explosion called the Big Bang?
 - a. impact craters found on Earth
 - b. cosmic background radiation
 - c. the different compositions of terrestrial and Jovian planets
 - d. the blue shift of light from distant galaxies
2. Which star is more massive than our Sun, but has a lower surface temperature?
 - a. 40 Eridani B
 - b. Aldebaran
 - c. Sirius
 - d. Barnard's Star
3. Which color of visible light has the shortest wavelength?
 - a. violet
 - b. green
 - c. yellow
 - d. red
4. The best evidence of Earth's rotation is provided by the
 - a. shape of Earth's orbit
 - b. shape of the Milky Way galaxy
 - c. changes in the total yearly duration of insolation at a location on Earth
 - d. apparent changes in the direction of swing of a Foucault pendulum
5. Which statement best describes the approximate rates of rotation and revolution?
 - a. Earth's rotation rate is 15° /hour and its revolution rate is 1° /day.
 - b. Earth's rotation rate is 1° /hour and its revolution rate is 15° /day.
 - c. Earth's rotation rate is 24° /hour and its revolution rate is 360° /day.
 - d. Earth's rotation rate is 360° /hour and its revolution rate is 24° /day.
6. A red shift in the light from very distant galaxies suggests that the universe is
 - a. fixed and stationary
 - b. moving randomly
 - c. contracting
 - d. expanding
7. Which motion causes the Coriolis effect on Earth?
 - a. revolution of Earth around the Sun
 - b. revolution of the Moon around Earth
 - c. rotation of Earth on its axis
 - d. rotation of the Moon on its axis
8. Which two characteristics do all Jovian planets have in common?
 - a. small diameters and low densities
 - b. small diameters and high densities
 - c. large diameters and low densities
 - d. large diameters and high densities

Midterm Review: Astronomy

9. Which process combines lighter elements into heavier elements to produce energy within the Sun and stars?
 - a. fusion
 - b. insolation
 - c. conduction
 - d. radioactive decay

10. Which star has a surface temperature most similar to the surface temperature of Alpha Centauri?
 - a. Polaris
 - b. Betelgeuse
 - c. Procyon B
 - d. Sirius

11. Which motion causes some constellations to be visible in New York State only during winter nights and other constellations to be visible only during summer nights?
 - a. Stars in constellations revolve around Earth.
 - b. Stars in constellations revolve around the Sun.
 - c. Earth revolves around the Sun.
 - d. Earth rotates on its axis.

12. Ocean tides observed at coastal locations each day are primarily caused by
 - a. Earth's revolution around the Sun
 - b. the changing phases of the Moon
 - c. the gravitational attraction between the Moon and Earth
 - d. seasonal changes in the compass location of sunrise

13. If Earth's rate of rotation increases, the length of one Earth day will be
 - a. shorter than 24 hours
 - b. longer than 24 hours
 - c. 24 hours, with a shorter nighttime period
 - d. 24 hours, with a longer nighttime period

14. Compared to the luminosity and surface temperature of red main sequence stars, blue supergiants are
 - a. less luminous and have a lower surface temperature
 - b. less luminous and have a higher surface temperature
 - c. more luminous and have a lower surface temperature
 - d. more luminous and have a higher surface temperature

15. A blue shift of the light from a star indicates that the star
 - a. will soon become a main sequence star
 - b. will soon become a giant star
 - c. is moving closer to Earth
 - d. is moving away from Earth

16. Evidence that Earth revolves around the Sun is provided by the
 - a. apparent rising and setting of the Sun during one day
 - b. apparent rising and setting of Polaris during one day
 - c. seasonal changes in the apparent positions of constellations
 - d. hourly changes in the apparent direction of the swing of a Foucault pendulum