Assessment

DIRECTIONS: Read each question carefully. Choose the letter of the best answer.

1. What is a light-year?
   A. The distance travelled by light in one year (365 ¼ days)
   B. The distance travelled by light in a leap year (366 years)
   C. The time required for light to cover 1 AU of distance travelled
   D. The time required for light to make a round trip from a nearby star

2. What is the approximate age of the universe?
   A. 14 million years C. 4.5 million years
   B. 14 billion years D. 4.5 billion years

3. What is an Astronomical Unit (AU)?
   A. It is the average spacing of the planets.
   B. It is the average distance of the earth from the Sun.
   C. It is the average distance of the earth from the moon.
   D. It is the average distance of the Sun from the nearest Star.

4. What is a parallax?
   A. An imaginary parallel line of reference when viewing distant stars.
   B. A unit of measurement of the displacement of celestial objects due to atmospheric factors.
   C. An apparent displacement of the observed position of objects viewed from different lines of sight.
   D. A pulsing of light emitted by stars that are at least 1200 Light-years away from the Solar System.

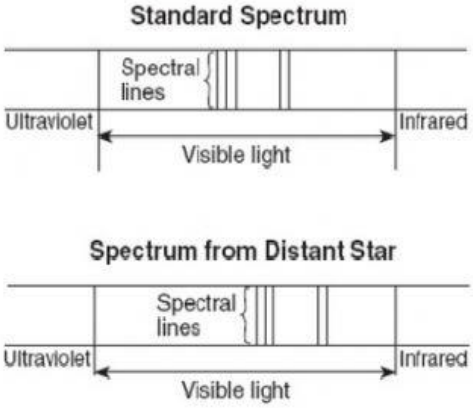
5. Which part of the spectrum does the Starlight show a shift in wavelength?
   A. Infrared end of the EM Spectrum
   B. Red light end of the visible spectrum
   C. Blue light end of the visible spectrum
   D. Ultraviolet-ray end of the EM spectrum

6. Which is **TRUE** about the movement of galaxies observed from earth?
   A. Far galaxies tend to move faster towards observers on earth.
   B. Far galaxies tend to move slower towards observers on earth.
   C. Far galaxies tend to move faster away from observers on earth.
   D. Far galaxies tend to move slower away from observers on earth.

7. What do red shifted lights mean?
   A. The source is slowing down.
   B. The source is moving towards the observer.
   C. The source is moving away from the observer.
   D. The source is moving perpendicular to the observer.

8. What does the redshifted light from a distant galaxy tell about the universe?
   A. It indicates that the universe is shrinking.
   B. It indicates that the universe is expanding.
   C. It indicates that the universe is not shrinking nor expanding.
   D. It indicates that the universe is shrinking and expanding in cycles.

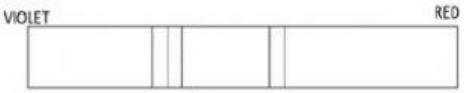
9. The diagram on the right shows the comparison between the standard spectrum of an element and a spectrum produced by a distant star. What conclusion can be drawn from this?

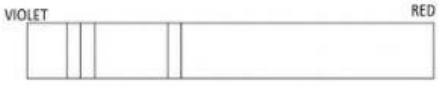


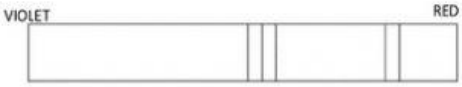
   A. The distant star collapsed.
   B. The distant star is approaching the earth.
   C. The distant star is moving away from the earth.
   D. The distant star is following an elliptical movement.

10. The figure below shows the spectral lines from an element in a laboratory.

Which diagram best illustrates the spectral lines of this element when its light is observed from a distant star moving away from the earth?

A. 

C. 

B. 

D. 

What I Can Do

Time traveling is one of the most essential concepts in Science. One cannot travel back in the time given the present innovations and discoveries. According to this line, ***You can look back in time every time you look at the stars,*** do you agree with this? Explain your answer.

It is common knowledge that the universe is expanding. What do you think will be the future of our universe? Do you think there will come a time wherein we will have a more detailed understanding of the known universe?