

Mid Term Prep-Big Bang

1. The major evidence supporting the "Big Bang" theory is
 - A) observations of supernova explosions.
 - B) the discovery of black holes.
 - C) observations that the Doppler red shift becomes greater as we look at more distant galaxies.
 - D) observations that most galaxies are rotating
2. The Big Bang Theory, describing the creation of the universe, is most directly supported by the
 - A) redshift of light from distant galaxies
 - B) presence of volcanoes on Earth
 - C) apparent shape of star constellations
 - D) presence of craters on Earth's Moon
3. The Doppler effect predicts that light from a source moving away from Earth will be
 - A) shifted to shorter wavelengths.
 - B) shifted to longer wavelengths.
 - C) appear blue.
 - D) appear red.
4. Evidence that the universe is expanding is best provided by the
 - A) red shift in the light from distant galaxies
 - B) change in the swing direction of a Foucault pendulum on Earth
 - C) parallelism of Earth's axis in orbit
 - D) spiral shape of the Milky Way Galaxy
5. A red shift in the spectrum of a distant galaxy indicates that the galaxy is
 - A) hot.
 - B) cool.
 - C) receding from us.
 - D) advancing toward us.
6. Based on the red-shift data on galaxies, most astronomers infer that the universe is currently
 - A) expanding
 - B) contracting
 - C) moving randomly
 - D) fixed and stationary
7. If we observe a Doppler blue shift from a star, the star must be
 - A) relatively cool in temperature
 - B) moving away from us
 - C) moving toward us
 - D) a blue star
8. Which part of the solar electromagnetic spectrum has the maximum intensity?
 - A) visible light radiation
 - B) infrared radiation
 - C) ultraviolet radiation
 - D) x-ray radiation
9. Which part of the Sun's electromagnetic spectrum has the longest wavelength?
 - A) radio wave radiation
 - B) infrared radiation
 - C) visible light radiation
 - D) x-ray radiation
10. The theory that the universe is expanding is supported by the
 - A) blue shift of light from distant galaxies
 - B) red shift of light from distant galaxies
 - C) nuclear fusion occurring in the Sun
 - D) radioactive decay occurring in the Sun

Answer Key
Regents Preparation-Big Bang

1. C
 2. A
 3. B
 4. A
 5. C
 6. A
 7. C
 8. A
 9. A
 10. B
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