

## Mid Term Prep-Big Bang

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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
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**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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