

QUIZ #5  
Chap. 3b

- A 1. Photons with very *long wavelengths* correspond to:
- a) low frequencies
  - b) high frequencies
  - c) high speeds
  - d) high energies
- A 2. An incandescent, low density gas (such as hydrogen) emits what type of spectrum?
- a) emission
  - b) absorption
  - c) continuous
- C 3. Astronomers can deduce the *chemical composition* of a star's atmosphere by examining its:
- a) size
  - b) temperature
  - c) absorption spectrum
  - d) velocity in space
- A 4. Of the following, the star with the *coolest* temperature would have the color:
- a) red
  - b) white
  - c) blue
  - d) yellow
  - e) orange
- B 5. If the spectral lines in a star appear shifted from their normal positions to *longer* wavelengths, we can infer that the star is \_\_\_\_\_ the observer:
- a) approaching
  - b) receding from
  - c) traveling at right angles to
  - d) fixed relative to
- A 6. According to the Bohr model of the hydrogen atom, a hydrogen atom emits a photon when:
- a) the electron jumps from a high energy level to a lower one
  - b) the electron jumps from a low energy level to a higher one
  - c) the atom collides with another atom
  - d) the atom is at very low temperature