

Physics U111 – Introduction to Astronomy – Fall 2007
Professor Vaughn
Quiz #8 – 29 November 2007

Your name _____

True or False (2 points each)

1. Smaller stars burn out more quickly than larger ones.
2. A typical solar mass star will appear as a red giant before it reaches the main sequence.
3. The distance to a star cluster can be estimated using its H-R diagram.
4. The Sun will spend about ten billion years on the main sequence.
5. Interstellar matter absorbs visible light more strongly than radio waves.

Fill in the blanks (3 points each)

1. The most common constituent of molecular clouds is molecular _____.
2. 21-cm radiation is due to the flip of the electron spin in a _____.
3. A main sequence star does not collapse under its own weight because of the outward _____ produced by the hot gases in the stellar interior.
4. Dark dust clouds can have temperatures as low as _____ K.
5. The main constituent of a young solar mass star as it reaches the main sequence is _____.
6. Emissions from molecular clouds are mainly in the _____ part of the electromagnetic spectrum.

Multiple choice (3 points each)

1. A typical solar mass star will spend most of its active life as a
 - a) protostar
 - b) green giant
 - c) white dwarf
 - d) main sequence star
 - e) molecular cloud
2. The most important reason for measuring the parallax of a star is to help us determine the star's
 - a) direction of motion
 - b) proper motion
 - c) apparent brightness
 - d) radial velocity
 - e) distance from Earth