

## PHYSICAL PROPERTIES OF STARS QUIZ

**1. What do you call two stars that share a common gravitational relationship..?**

- a) Double Star
- b) Optical Double

**2. What do you call two stars that look close together from Earth but have no proximity or relationship to one another..?**

- a) Double Star
- b) Optical Double

**3. What is the name of the method that astronomers use to calculate distances to nearby stars?**

- a) Parallax
- b) Geometric analysis
- c) Algorithms

**4. A parsec is..?**

- a) The distance of the nearest star to Earth
- b) The distance a star would be with a parallax of 1 second of arc
- c) The distance Han Solo boasts he can fly in the Millennium Falcon

**5. How many light years is a parsec?**

- a) 3.26 light years
- b) 15.87 light years
- c) 100 light years

**6. Which of these variable stars has the most predictable and reliable light curve?**

- a) Eclipsing binaries
- b) Cepheid variables
- c) Novae/Supernovae

**7. Which of these would be a likely apparent magnitude of a faint star?**

- a) 1
- b) 3
- c) 6

**8. Which of these would be a likely apparent magnitude of a bright planet?**

- a) -2
- b) 0
- c) 2

**9. A magnitude difference of 1 is equal to a difference in brightness of 2.5. A magnitude difference of 5 is equal to?**

- a) 7.5
- b) 12.5
- c) 100

**10. Absolute magnitude is how far a star would be if you were how far away from it?**

- a) 10 light years
- b) 10 parsecs
- c) 10 mega parsecs

**11. What do astronomers use to calculate how far other galaxies are from us?**

- a) Eclipsing Binaries
- b) Novae
- c) Cepheid Variables

**12. Which of these lines in a stellar spectrum appear bright?**

- a) Emission Lines
- b) Absorption Lines
- c) Atom lines

**13. What does a stellar spectrum NOT necessarily tell us about a star?**

- a) Number of planets orbiting it
- b) Colour
- c) Surface temperature
- d) Composition

**14. The Hertzsprung-Russell diagram shows us..?**

- a) The relationship between binary systems
- b) The relationship between a star's composition and colour
- c) The relationship between a star's temperature and luminosity

**ANSWERS**

1. (a)

2. (b)

3. (a)

4. (b)

5. (a)

6. (b)

7. (c)

8. (a)

9. (c)

10. (b)

11. (c)

12. (a)

13. (a)

14. (c)