

18 Multiple choice questions

1. cooler areas on the Sun's surface; also areas of weaker magnetic fields
 - a. universe
 - b. pulsar
 - c. sunspots
 - d. supernova

2. electromagnetic waves with wavelengths shorter than violet light
 - a. supernova
 - b. ultraviolet
 - c. universe
 - d. star

3. the balance between the forces of gravity causing a star to collapse, and the outward forces due to the energy released in nuclear reactions
 - a. stellar evolution
 - b. star
 - c. pulsar
 - d. stellar equilibrium

4. the fundamental building blocks of matter
 - a. star
 - b. quark
 - c. x-ray
 - d. pulsar

5. a star at the end of its evolution; its mass similar to the sun with diameter the size of the earth; no nuclear processes are continuing, and it eventually ends up as a cold black dwarf
 - a. red giant
 - b. white dwarf
 - c. quark
 - d. star

6. a vast mass of gas hot enough to initiate fusion reactions
 - a. pulsar
 - b. quark
 - c. x-ray
 - d. star

7. a shell of gas expanding outwards from a star in the later stages of its evolution, between the red giant and white dwarf stages
 - a. positron
 - b. planetary nebulae
 - c. supernova
 - d. ultraviolet

8. high frequency electromagnetic waves of high penetration
 - a. pulsar
 - b. star
 - c. x-ray
 - d. quark

9. everything that exists
 - a. pulsar
 - b. quark
 - c. sunspots
 - d. universe

10. the end result of a massive star, which explodes and increases in brightness by 1 billion times or more; in the explosion the heavier elements are formed
 - a. quark
 - b. star
 - c. sunspots
 - d. supernova

11. the different stages in a star from its birth to its death
 - a. stellar evolution
 - b. stellar equilibrium
 - c. ultraviolet
 - d. spectroscope

12. a star in its larger stages of evolution after it has moved from the main sequence and expanded to a size hundreds of times larger
 - a. red shift
 - b. quark
 - c. red giant
 - d. positron

13. the spontaneous breakdown of an atom by the emission of alpha and/or beta and gamma rays
 - a. radioactivity
 - b. red giant
 - c. x-ray
 - d. red shift

14. a positive electron; an antiparticle
 - a. positron
 - b. universe
 - c. pulsar
 - d. star

15. an optical device used to disperse light from a source into its spectrum
 - a. positron
 - b. supernova
 - c. ultraviolet
 - d. spectroscope

16. the shift of the spectral lines from a receding light source, towards the red end of the spectrum
 - a. red shift
 - b. red giant
 - c. star
 - d. pulsar

17. a series of nuclear fusion reactions by which stars generate energy; the overall effect is to convert 4 hydrogen nuclei into 1 helium nucleus
 - a. proton-proton chain
 - b. sunspots
 - c. spectroscope
 - d. positron

18. another name for a neutron star
 - a. x-ray
 - b. star
 - c. pulsar
 - d. quark