

## 20 Multiple choice questions

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1. a star at the end of its evolution; its mass similar to the sun with diameter 20km
  - a. neutron star
  - b. luminosity
  - c. giant stars
  - d. nucleus
  
2. the distance that light travels in one year
  - a. light-year
  - b. matter
  - c. infrared
  - d. giant stars
  
3. large, highly luminous stars which are brighter than main sequence stars of the same colour; giants represent a late phase in stellar evolution
  - a. light-year
  - b. infrared
  - c. matter
  - d. giant stars
  
4. the spectrum of an element consisting of lines in certain frequencies (colours) only (each line being an image of the slit of the spectroscope)
  - a. geocentric
  - b. line spectrum
  - c. ionosphere
  - d. giant stars
  
5. everything that exists that has mass and takes up space
  - a. nucleus
  - b. giant stars
  - c. light-year
  - d. matter
  
6. the dense positive core of the atom containing almost all the mass of the atom; made up protons and neutrons
  - a. matter
  - b. infrared
  - c. parallax
  - d. nucleus

7. a spherical shell of ionised gas surrounding the earth; it can be used to reflect short-wave radio waves
  - a. infrared
  - b. giant stars
  - c. nucleus
  - d. ionosphere
  
8. system is one which has the centre of the earth as its reference point; the model of the solar system which has the earth at the centre
  - a. heliocentric model
  - b. ionosphere
  - c. matter
  - d. geocentric
  
9. the constant that relates the speed of recession of the galaxies to the age of the universe
  - a. nucleus
  - b. hubble constant
  - c. geocentric
  - d. giant stars
  
10. one which has the sun as the centre for measurements
  - a. neutron star
  - b. heliocentric model
  - c. line spectrum
  - d. geocentric
  
11. a diagram which displays the brightness of stars versus either their colour, spectral class or surface temperature
  - a. hertzsprung-russle diagram
  - b. hubble constant
  - c. neutron star
  - d. Kepler's laws
  
12. three laws relating the motion of the planets
  - a. Kepler's laws
  - b. inverse square law
  - c. parallax
  - d. nucleosynthesis

13. electromagnetic waves with wavelengths ranging from 1mm to 0.1m
  - a. nucleus
  - b. ionosphere
  - c. infrared
  - d. microwaves
  
14. a relationship in which one quantity is directly proportional to the inverse of another quantity squared
  - a. main sequence
  - b. infrared
  - c. inverse square law
  - d. neutron star
  
15. the production of the elements by nuclear reactions
  - a. geocentric
  - b. ionosphere
  - c. nucleosynthesis
  - d. nucleus
  
16. the force of attraction between two masses is proportional to the product of the masses and inversely proportional to the square of the distance between their centres
  - a. hertzsprung-russle diagram
  - b. nucleosynthesis
  - c. neutron star
  - d. Newtons law of universal gravitation
  
17. long-wave radiation emitted by hot objects with wavelengths greater than 700nm and less than 1mm
  - a. microwaves
  - b. infrared
  - c. parallax
  - d. ionosphere
  
18. the apparent movement of an object against a background, when viewed from different positions
  - a. nucleus
  - b. parallax
  - c. infrared
  - d. matter

19. a measure of the actual brightness of an astronomical object
- nucleus
  - infrared
  - light-year
  - luminosity
20. a region on the H-R diagram containing the majority of stars; it is in this region that stars spend the main part of their lives converting hydrogen into helium
- ionosphere
  - matter
  - main sequence
  - microwaves