

18 In the 16th century the astronomer Tycho Brahe made measurements of stars in the night sky.

He measured the angle of a range of stars above the horizon. For each star he measured the angle over a period of time to determine a parallax effect.

(a) (i) Describe how stellar parallax is used by astronomers.

(4)

(ii) Tycho Brahe concluded that the Earth was motionless at the centre of the universe, as he was not able to detect any stellar parallax.

Suggest why he was not able to detect any stellar parallax.

(1)



(b) Tycho Brahe was one of the first astronomers to observe a supernova. Supernovas are used as a type of standard candle.

(i) State what is meant by a standard candle.

(1)

(ii) Describe how standard candles can be used to determine the distance to nearby galaxies.

(3)

(Total for Question 18 = 9 marks)