

5 A star is moving away from the Earth.

The wavelengths of spectral lines in the light received from the star are measured. These wavelengths are not the same as the wavelengths of the same lines measured from a source in the laboratory.

Which of the following explains the difference in the wavelengths?

- ☐ **A** The star emits light with a shorter wavelength.
- ☐ **B** The star emits light with a longer wavelength.
- ☐ **C** The light arrives at the Earth with a shorter wavelength.
- ☐ **D** The light arrives at the Earth with a longer wavelength.

(Total for Question 5 = 1 mark)