

- 5** A sample of a material is in the form of a wire. The material has a large value of the Young modulus.

Which of the following statements best describes the material?

- ☐ **A** A large force per unit cross-sectional area is required to break the wire.
- ☐ **B** The mass per unit volume is large.
- ☐ **C** The ratio of tensile stress to tensile strain is large.
- ☐ **D** After removing a large stress the sample returns to its original length.

(Total for Question 5 = 1 mark)