

- 4 (a) Compare the molecular motion of a liquid with

(i) a solid,

..... [2]

(ii) a gas.

..... [1]

- (b) (i) A ductile material in the form of a wire is stretched up to its breaking point. On Fig. 4.1, sketch the variation with extension x of the stretching force F .

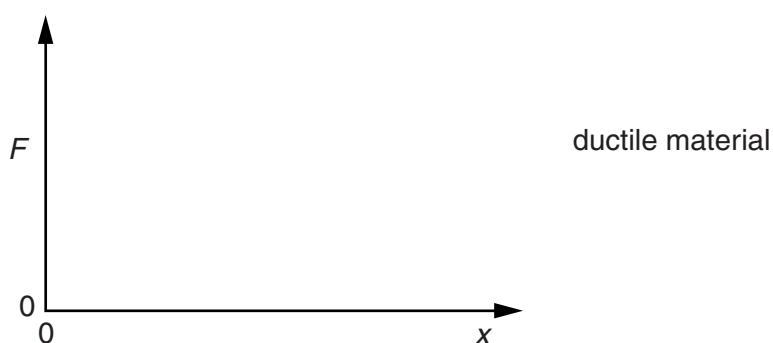


Fig. 4.1

[1]

- (ii) On Fig. 4.2, sketch the variation with extension x of the stretching force F for a brittle material up to its breaking point.

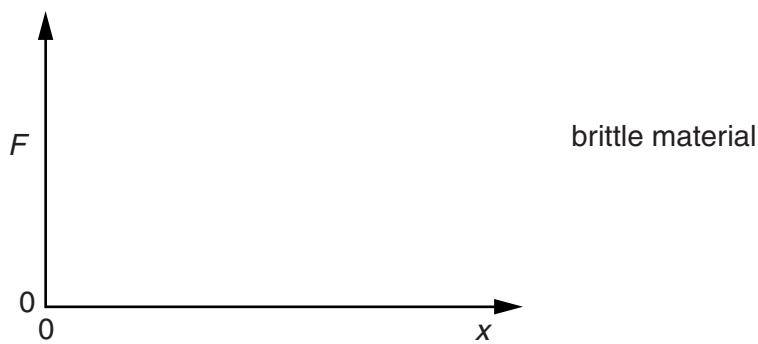


Fig. 4.2

[1]

- (c) Describe a similarity and a difference between ductile and brittle materials.

similarity:

.....

difference:

.....

[2]