

Answers to end-of-chapter questions

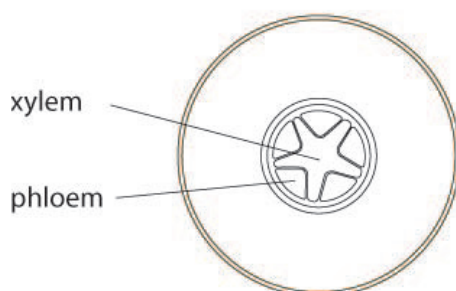
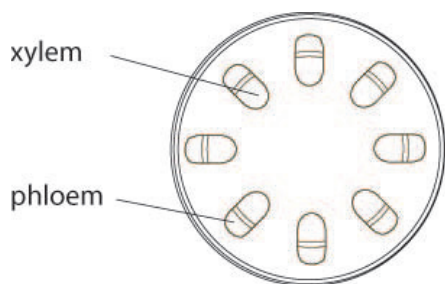
Chapter 8: Transport in plants

- 1 a xylem vessel
b xylem vessel
c lignin
d root hair
e transpiration
f stoma
g potometer

- 2 a translocation
b phloem
c wilting
d cohesion

- 3 a and b root hairs liquid
root cortex cells liquid
xylem liquid
leaf mesophyll cells liquid
air spaces in leaf gas
stomata gas

- 4 a a section cut across something
b, c and d



- 5 a water enters by osmosis;
down water potential gradient / from high
to low water potential;
through partially permeable cell membrane; [3]
b 20; [1]
c as wind speed increases water uptake
increases;
any use of manipulated figures; (e.g. doubling
of wind speed from 2 to 4 metres per second
results in 1.7 times the rate of water uptake); [2]
d light intensity;
temperature;
humidity; [max 2]