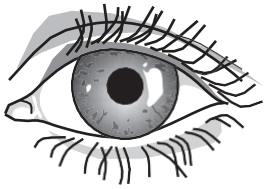
GCSE Biology A (Gateway)

J247/03 B1-B3 and B7 Higher (Higher Tier)

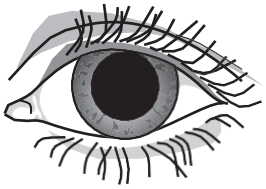
Question Set 9

1 A girl walks from a sunny beach into a dark café.

Diagram **A** shows the girl's left eye on the beach.



A



B

(a) Diagram **B** shows the girl's left eye after she enters the café.

Explain how you can tell this and how this change happens.

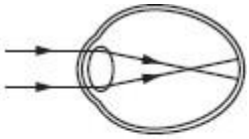
Pupil has dilated and radial muscles contracted to allow more light into the eye.

[3]

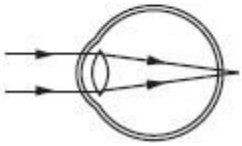
(b) Look at the diagrams.

They show how light is focused in people with different eye defects.

Person **X**



Person **Y**



[2]

(i) Name the eye defect in each person.

Person **X** Short sighted

Person **Y** Long sighted

[2]

(ii) Identify the type of corrective lens needed by person **X** and **Y** and explain how the lenses work.

X needs concave lenses as they diverge light rays before entering the eye.
Y needs convex lenses as they converge light rays before entering the eye. **[3]**

Total Marks for Question Set 9: 10