

**GCSE Biology B (Twenty First Century Science)**  
**J257/03 Breadth in Biology (Higher)**

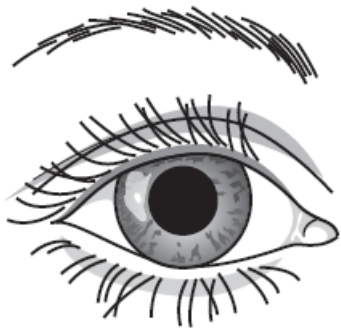
**Question Set 28**

1 Iritis is a condition where the iris of the eye inflames. It usually affects only one eye.

The iris can no longer contract to change the size of the pupil.

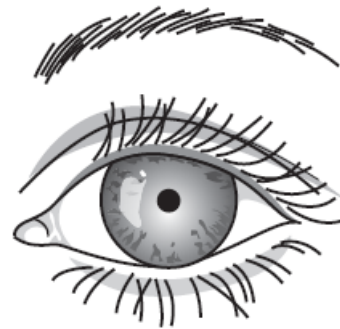
(a) Describe an experiment a doctor could perform to determine if a patient has iritis. [3]

(b) Fig. 9.1 and Fig. 9.2 show the pupil size of an eye without iritis and an eye with iritis.



Eye **without** iritis

Fig. 9.1



Eye **with** iritis

Fig. 9.2

Calculate the percentage decrease in pupil diameter of the two pupils.

Percentage decrease = .....% [3]

(c) The optic nerve sends electrical impulses from the retina of the eye to the neurons in the brain.

Explain how nerve cells are adapted to transmit electrical impulses. [3]

**Total Marks for Question Set 28: 9**

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