THE BIOLOGY JOTTER BOOK

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Drawing Genetic Diagrams

- Answer written in blue
- Annotations made in red (and colour-coded)
- Question taken from 5090 Biology O Level June 2020 Paper

(b) When suddenly exposed to bright light, some people automatically sneeze. This is known as the photic sneeze reflex.

homozygous recessive

The photic sneeze reflex is the result of the possession of a dominant allele **A**. Use a genetic diagram to show how parents, both with the photic sneeze reflex, can have a child who is **not** affected by the photic sneeze reflex.

these 6 steps should be written

1. Parents' phenotypes :
2. Parents' genotypes :
3. Gametes :
4. Offspring's genotypes :
5. Offspring's phenotypes :
6. Offspring's phenotypic ratio

Photic sneeze reflex x Photic sneeze reflex

Aa x Aa

A a x A a

gametes must be circled

AA (1) Aa (1) Aa (1) aa

genotypes separated with commas

Photic sneeze reflex (1), Unaffected (1)

make sure it's clear what the genotypes represent

3 Photic sneeze reflex : 1 unaffected [3]

[Total: 7]

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[Turn over