

Exam Questions

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- 2 (a) Chris and Jim were talking about fertilisation in plants.

Chris said that “fertilisation in plants happens when the pollen grain lands on the stigma”.

Jim said that “fertilisation is when the nuclei from the ovule (egg) and pollen grain actually join together”.

Who is correct, Jim or Chris?

(1 mark)

- (b) The sentences below can be rearranged to describe the stages that must occur if a plant is to reproduce successfully. Number the steps 1 to 6 to show the correct order of these events. The first one has been done for you.

stage	order
The nucleus of the pollen grain joins with the nucleus of the egg cell (ovule).	
Pollen grain lands on the stigma.	1
The ovary develops into a fruit with the seeds inside.	
The nucleus from the pollen grain moves down through the tube.	
A pollen tube grows down through the style to the ovary.	

(4 marks)

- 3 Jen found a packet of seeds in her garage. The packet wasn't labelled, so Jen decided to plant the seeds to see what kind of plants grew from them.

- (a) What **three** things are needed for seeds to germinate?

(3 marks)

- (b) After two months some small plants that had flowers with bright yellow petals grew from the seeds.

Suggest a reason why the plants had bright yellow petals.

(1 mark)

- (c) After the plants had flowered, Jen noticed some seed-heads covered in little tiny hooks on the plants.

Describe how the hooks would help the plant to disperse its seeds.

(1 mark)