



**Science Revised Syllabus
Junior Certificate
Higher Level**

**Past Exam Questions on
B Plant Reproduction and Seed Growth**

Q1 Part (g) 2012

- (g) Asexual and sexual reproduction occur in plants. State how a named plant can reproduce asexually.

Name _____

How? _____

Q3 Part (a) 2012

Question 3

(39)

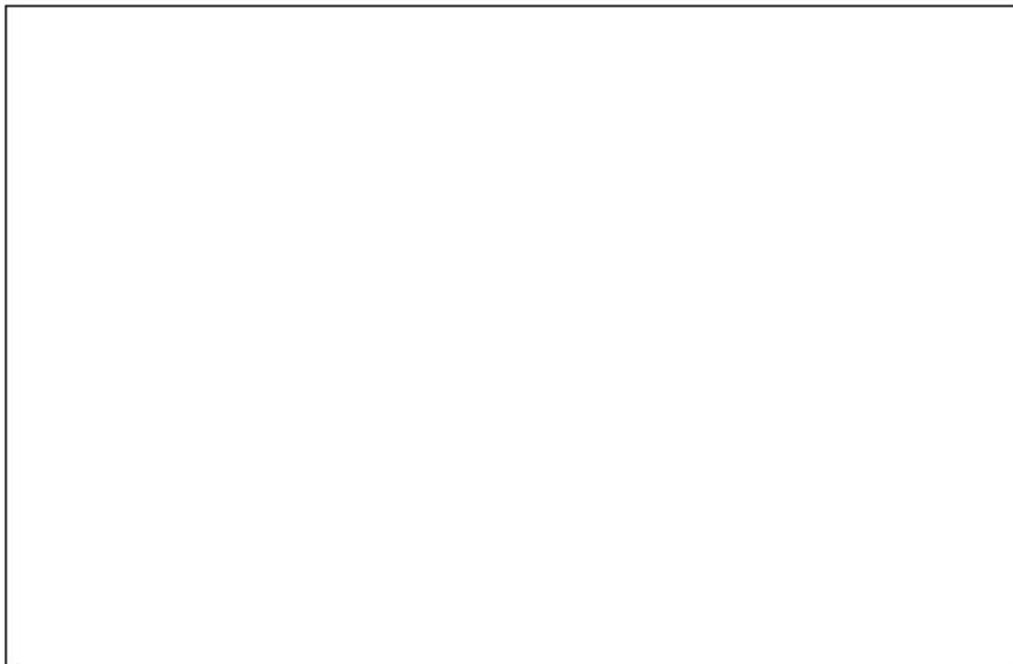
(a) An insect feeds on a flower and picks up pollen. When the insect visits another flower of the same species it leaves some of the original pollen behind.



(i) Give a second way in which transfer of pollen between plants occurs. (3)

Give _____

(ii) Draw a labelled diagram of a suitable flower showing the stigma, style, ovary, anther and filament in the box provided. (15)



(iii) Name the part of the flower that produces the male gamete. (3)

Name _____

(iv) Name the part of the flower that produces the female gamete. (3)

Name _____

(v) What follows fertilisation in flowering plants? (3)

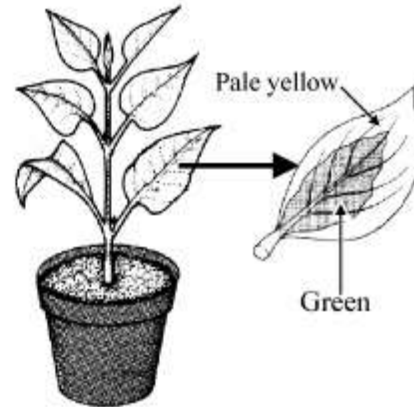
What? _____

Q3 Part (a) and (b) 2010

Question 3

(39)

- (a) The diagram shows a plant with variegated leaves i.e. the leaves have areas with different colours. The leaves of this plant have a green centre with pale yellow margins. This plant was used in an experiment to investigate the production of starch by photosynthesis.



- (i) Why was the plant left in darkness for a day at the start of the experiment? (3)

Why? _____

- (ii) The plant was then exposed to bright light for some hours after which a leaf was removed and boiled in water for a few minutes. Why was the leaf boiled in water? (3)

Why? _____

- (iii) Draw a labelled diagram, in the box, showing the apparatus and named liquid used to remove the green pigment from the leaf. (6)

- (iv) The leaf was finally covered with a solution that turned the area which was previously green to blue-black while the leaf margins did not turn blue-black. Name the solution used. (3)

Name _____

- (v) Suggest a reason why the leaf margins did not turn blue-black. (3)

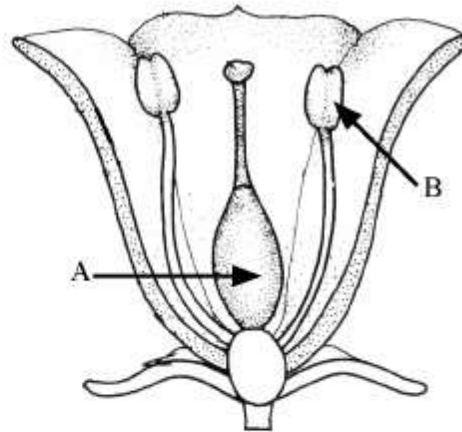
Suggest _____

(b) The female part of the flower is called the carpel and the male part is called the stamen. The diagram is a cross section through a flower.

(i) Name *part A* of the carpel and give its *role* in the sexual reproduction of plants. (6)

Name _____

Role _____



(ii) Name *part B* of the stamen and give its *role* in the sexual reproduction of plants. (6)

Name _____

Role _____

(iii) Give a *way* in which the pollen from the flower of one plant can be transferred to the flower of another plant. (3)

Give _____

(iv) Name the *cell* that is formed when a male gamete (sperm) and a female gamete (egg) combine. (3)

Name _____

(v) What does the *cell* formed by the fusion of the male and female gametes of a flowering plant *grow and develop* into? (3)

What? _____

Q1 Part (e) 2009

(e) The child in the photograph is helping a dandelion to disperse its seeds.



(i) Why is *seed dispersion* important for plants?

Why? _____

(ii) Give a *second way*, excluding wind, by which *plants disperse seeds*.

Give _____

Q1 Part (g) 2009

(g) (i) Name a *plant* that can reproduce *asexually*.

Name _____

(ii) Describe *the way the plant* that you have named *reproduces asexually*.

Describe _____

Q2 Part (a) 2007

Question 2

(39)

(a) The diagram shows a young seedling grown from a germinated seed.

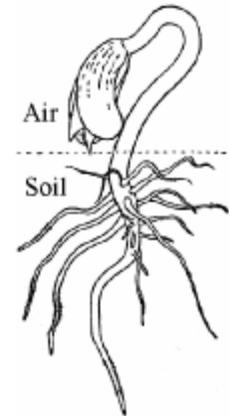
(i) List three *conditions necessary* for seeds to germinate.

(9)

Condition 1 _____

Condition 2 _____

Condition 3 _____



(ii) Describe, using labelled diagrams in the box provided, an investigation to show that any two of the *conditions* that you have given are required for seeds to germinate. The investigation must have a *suitable control*. (12)
