



**Science Revised Syllabus  
Junior Certificate  
Higher Level**

**Past Exam Questions on  
B Ecology and Habitat Study**

**Q1 Part (f) 2013**

- (f) An ecosystem will have **producers, consumers and decomposers** present. Pick any two groups from the list and explain their role in the ecosystem.

Name of first group \_\_\_\_\_

Role of first group \_\_\_\_\_

Name of second group \_\_\_\_\_

Role of second group \_\_\_\_\_

**Q3 Part (a) 2013**

**Question 3**

(39)

- (a) In 1800 the population of the earth was about one billion people. Two hundred years later the human population on earth is more than seven billion people. Humans have both positive and negative impacts on the environment.

- (i) Identify two areas of human activity that have affected the environment negatively.

1 \_\_\_\_\_ 2 \_\_\_\_\_

Explain how one of the areas you have identified has a negative impact. (9)

\_\_\_\_\_

- (ii) Identify two areas of human activity that have affected the environment positively.

1 \_\_\_\_\_ 2 \_\_\_\_\_

Explain how one of the areas you have identified has a positive impact. (9)

\_\_\_\_\_

**Q1 Part (g) 2011**

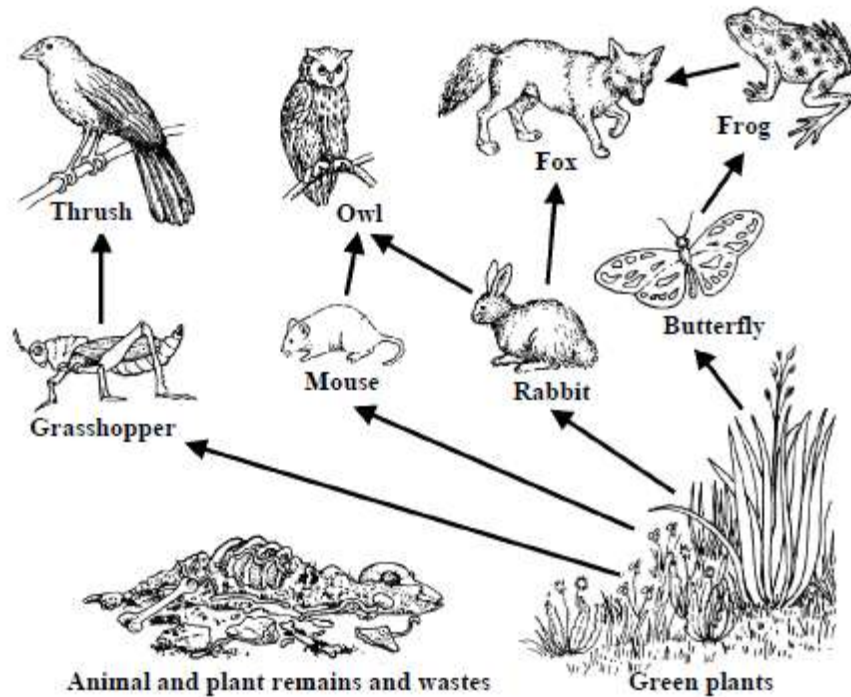
(g) Name one invertebrate animal and one vertebrate animal.

Invertebrate \_\_\_\_\_

Vertebrate \_\_\_\_\_

**Q3 Part (b) 2011**

(b) The diagram shows a simplified food web from a mixed habitat.



Answer the following questions using only items from the diagram above in your answers.

(21)

(i) Write a food chain with three members.

\_\_\_\_\_

(ii) Decomposers are not shown in the diagram.  
What would decomposers feed on?

\_\_\_\_\_

(iii) Give **one** example of adaptation.

\_\_\_\_\_

(iv) Name **two** animals that might be in competition.

1 \_\_\_\_\_ 2 \_\_\_\_\_

(v) What is meant by the term interdependence?  
Give an example of interdependence.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Q3 Part (a) 2009

Question 3

(39)

- (a) The study of a habitat requires the use of sampling instruments, as it is not possible to count every individual organism living there.

The photograph shows a pupil and teacher using a quadrat. The quadrat is placed randomly in a number of sites in the habitat being studied.



- (i) How is *random sampling* achieved when using a quadrat? (3)

How? \_\_\_\_\_

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- (ii) Give *two different types of data collected* (*two different tasks performed*) at each site in the habitat when using the quadrat. (6)

One \_\_\_\_\_

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Two \_\_\_\_\_

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**Q3 Part (b) 2009**

(b) Line transects are also used to sample habitats.

(i) What is a *line transect*? (3)

What? \_\_\_\_\_

\_\_\_\_\_

(ii) Describe how to *sample a habitat* using a *line transect*. (6)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Q3 Part (c) 2009**

- (c) The photograph shows a pupil with a sweep net. The sweep net is used to collect small animals e.g. insects from vegetation in a habitat so that they can be identified.



- (i) Name a *second item* of equipment used to collect small animals for identification. (3)

Name \_\_\_\_\_

- (ii) Draw a *labelled diagram*, in the box provided, of *the item* that you have named in (i) above. (6)



- (iii) Describe how to *use the item* that you have named and drawn. (6)

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- (d) Give *two reasons* why the *groups of organisms* living together can vary greatly *from one part of a habitat to another*. (6)

One \_\_\_\_\_

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Two \_\_\_\_\_

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**Q1 Part (a) 2008**

**Question 1**

(52)

- (a) The photograph shows *Amanita Phalloides*, a poisonous fungus, whose common name is 'Death Cap'. Fungi are decomposers. Explain the *underlined term*.

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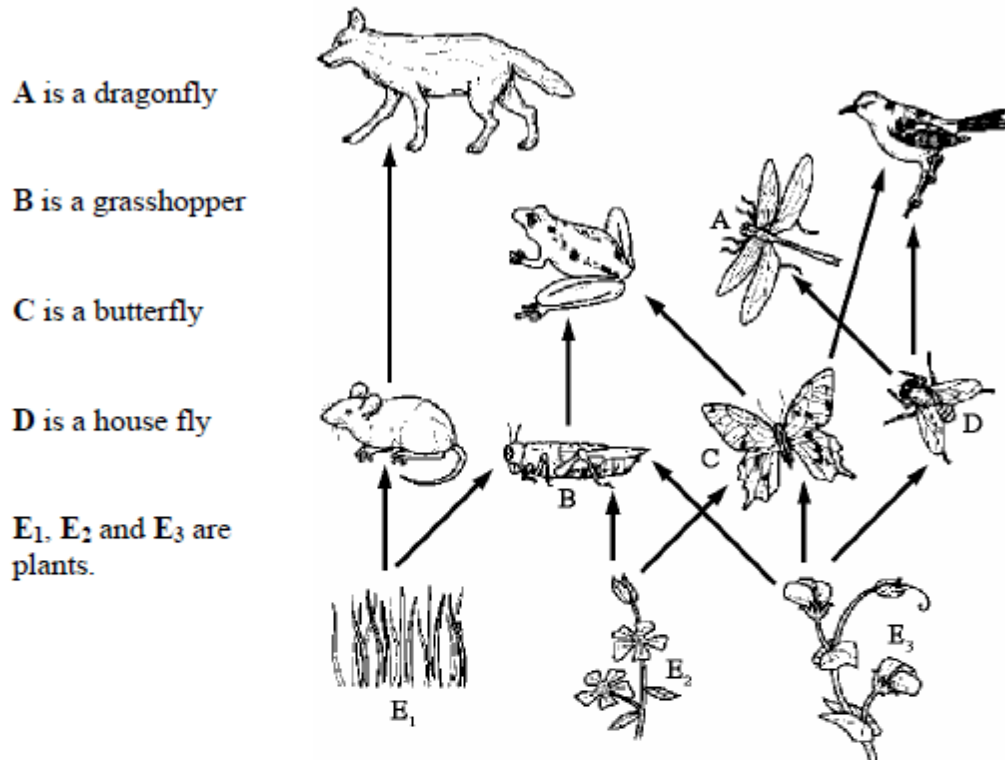
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**Q3 Part (b) 2008**

- (b) The diagram shows part of a *food web* from a mixed habitat with meadows, streams and hedges.



- (i) Write down a *food chain* from the food web shown. (6)

- (ii) Select an *organism* from this habitat *or* name another organism from a habitat you have studied and state *one adaptation* that the organism has that makes it suited to its habitat. (3)

**Organism** \_\_\_\_\_ **Adaptation** \_\_\_\_\_

- (iii) What is meant by *competition* in a habitat? (3)

\_\_\_\_\_  
 \_\_\_\_\_

- (iv) Give an example of *interdependence* from the food web shown. (6)

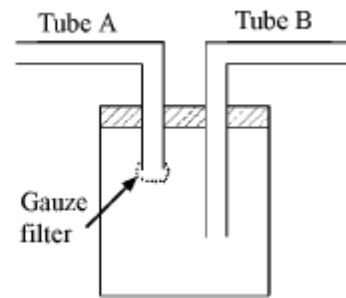
\_\_\_\_\_  
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**Q1 Part (f) 2007**

(f) The diagram shows a pooter. It is used, when studying a habitat to collect small animals e.g. insects, for identification. Describe *how to use a pooter*. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



**Q1 Part (b) 2006**

(b) *Decomposers* are living things that release useful materials, from the waste products of plants and animals and from dead plants and animals, for reuse by living organisms. Name *two kinds of decomposers* found in the soil.

Names \_\_\_\_\_