



# Coimisiún na Scrúduithe Stáit State Examinations Commission

Leaving Certificate Applied 2011

## Vocational Specialism Agriculture/Horticulture (240 marks)

Wednesday 15 June 2011  
Morning 9.30 a.m. to 11.00 a.m.

### *General Directions*

1. Write your EXAMINATION NUMBER in this space:

2. WRITE ALL ANSWERS INTO THIS ANSWER BOOK.

THERE ARE TWO SECTIONS IN THIS EXAMINATION PAPER.

*Section One:* One question of which **twelve** parts must be answered.  
Each part carries 10 marks.

*Section Two:* Candidates must answer any **four** questions from this section, based on the modules studied. Each question carries 30 marks.

For the Superintendent only	For the Examiner only	
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <b>Centre Stamp</b> </div>	1. <i>Total of end of page totals.</i>	
	2. <i>Aggregate total of all disallowed questions.</i>	
	3. <i>Total mark awarded (1 minus 2).</i>	
	4. <i>Bonus mark for answering through Irish (if applicable).</i>	
	5. <i>Total mark awarded if Irish Bonus. (3 + 4).</i>	
	<i>Note: The mark in row 3 (or row 5 if an Irish bonus is awarded) must equal the mark in the Total box on the marking grid.</i>	

**Section One**

**(120 marks)**

**Question 1. This is made up of eighteen parts i.e. (a) to (r).**

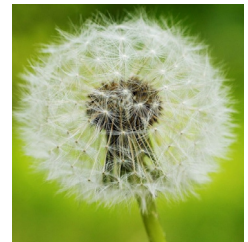
**Any 12 parts must be answered. All parts carry equal marks (10 marks each).**

1. (a) Give the proper name of the plant whose seed head is shown in the photograph.

\_\_\_\_\_

This plant scatters its seeds with the help of

\_\_\_\_\_



(b) Name the **two** substances produced by a plant during photosynthesis.

1. \_\_\_\_\_

2. \_\_\_\_\_

(c) Give the common name of the plant structure shown in the photograph.

\_\_\_\_\_

Name the tree that produces this plant structure. \_\_\_\_\_



(d) Name **two** components that you would include in potting compost.

1. \_\_\_\_\_

2. \_\_\_\_\_

(e) The leaves shown in the photograph are from what forestry tree?

\_\_\_\_\_

Trees that do **not** lose their leaves in winter are known as

\_\_\_\_\_



(f) An animal breed that is **most** popular for **both** milk **and** meat production in Ireland is

\_\_\_\_\_

Name a common disease of a milk **or** meat animal.

\_\_\_\_\_

(g) Give **two** reasons for controlling the use of antibiotics in milk **or** meat animals.

1. \_\_\_\_\_

2. \_\_\_\_\_

(h) Name the machine in the photograph that is used in the making of hay or silage.

\_\_\_\_\_

What is the advantage to the farmer of making hay or silage?

\_\_\_\_\_



(i) Suggest **two** steps you would take to prevent accidents on farms.

1. \_\_\_\_\_

2. \_\_\_\_\_

(j) An Bord Bia is an organisation involved with Agriculture and Horticulture in Ireland. State **two** ways in which this organisation helps the Agriculture/Horticulture industry.

1. \_\_\_\_\_

2. \_\_\_\_\_

(k) Name **one** career or job you studied as part of your Agriculture/Horticulture course.

\_\_\_\_\_

Identify **one** skill **or** **one** area of knowledge required as part of this job or career.

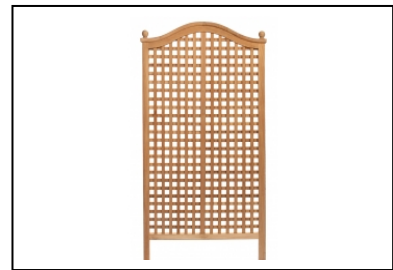
\_\_\_\_\_

(l) Identify the garden structure shown in the picture.

\_\_\_\_\_

What can this structure be used for in the garden?

\_\_\_\_\_



(m) Many **fresh** flowers, fruits and vegetables are available in Ireland outside their growing season. Suggest a practice that makes this possible.

\_\_\_\_\_

Suggest a **disadvantage** of the practice you have named above.

\_\_\_\_\_

(n) Name **one** maintenance problem gardeners may have with lawns.

\_\_\_\_\_

State how this problem may be solved.

\_\_\_\_\_

(o) Name a type of grass commonly grown in Irish grassland.

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Give **one** reason why farmers choose this type of grass.

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(p) Give **one** reason why forestry in Ireland is mainly found on upland or mountain sides.

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State **one** environmental problem caused by forestry.

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(q) Chemicals used to control pests in crops are known as

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Name **one** piece of safety equipment that should be worn when using these chemicals.

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(r) Name the poisonous grassland plant shown in the photograph.

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Suggest a method of controlling this plant.

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Answer any 4 questions from the following 6 questions, which are based on the modules you have studied. All questions carry equal marks (30 marks each).

## 2. BASIC HORTICULTURE

(a) Propagating a plant using young stems is called \_\_\_\_\_

(b) Write each term from column C in column B to match a term from column A.  
See shaded example.

Column A	Column B	Column C
Strawberry		Root tuber
Tulip		Stem tuber
Potato		Runner
Dahlia	Root tuber	Bulb

(c) Plants need nutrients to grow.  
Name **two** nutrients that are essential for healthy plant growth.

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

Name **one organic** method of increasing the soil content of **either** nutrient referred to above.

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

Which scale is used to indicate how acid or alkaline a soil is?

\_\_\_\_\_

(d) The photographs below relate to making and using garden compost.



Suggest **two** reasons why garden composting is a good idea.

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

Name **two** items of household or garden waste that you should **not** put in a compost bin.

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

Where in the garden should you put your compost bin?

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

What causes the garden and household waste to change into compost?

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

### 3. GARDEN DESIGN

(a) Name a feature you would include in a garden for visually impaired people.

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(b) Indicate whether the following statements are true or false by ticking  the correct box.

- Scarifying a lawn involves removing dead plant material. True  False
- Cheshunt compound is a fertilizer. True  False
- Trees used as special features must be evergreen. True  False

(c) You have been given the task of producing a garden design for an area of the school grounds. The garden can have any feature you may wish to include.

What equipment or materials will you need to produce a plan of your school garden?

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Name a shrub you would include to provide colour in the school garden in winter.

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Suggest **one** feature that would be useful to include in a school garden.

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Give a reason why this feature would be useful in the school garden.

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(d) The photograph below is of a large well laid out garden with many features.



Is the garden design formal or informal?

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Give a reason for your answer.

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In planning a garden ‘**aspect**’ is very important.  
What does ‘**aspect**’ mean in the case of the garden above?

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Give **one** advantage **and one** disadvantage of having a garden such as that pictured above.

Advantage. \_\_\_\_\_

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Disadvantage. \_\_\_\_\_

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## 4. FLORISTRY, FRUIT & VEGETABLES

- (a) The shelf life of flowers, fruit and vegetables can be extended by \_\_\_\_\_
- (b) Complete the following sentences on the lines below using the most suitable words from the list.

**Acid      Disease      Organic      Failure      Large scale      Alkaline**

- Large scale production increases the risk of \_\_\_\_\_
- Most crops grow best in soil in which the pH is slightly \_\_\_\_\_
- There is an increased demand for farmers to use \_\_\_\_\_ methods.

- (c) In your study of this module you carried out a survey or an interview.

What was the purpose of your survey or interview?

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Give **two** results or conclusions from your survey or interview.

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

Suggest **two** ways in which you could have improved your survey or interview.

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

(d) You have studied the production, delivery and sale of flowers **or** fruit **or** vegetables.  
Answer the questions below in relation to a named flower **or** fruit **or** vegetable.

Name of flower **or** fruit **or** vegetable. \_\_\_\_\_

Describe the method of large scale production of the named product.

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Outline **two** methods used to make sure the product reaches its market in perfect condition.

Method 1. \_\_\_\_\_

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Method 2. \_\_\_\_\_

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How can the consumer make sure the product remains in good condition for as long as possible after purchase?

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How does the product contribute to our health or general well being?

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## 5. FORESTRY

(a) The timber product of the pine tree is called \_\_\_\_\_

(b) Match each word in column A with a term from column B to give an answer in column C.  
See shaded example

Column A	Column B	Column C
1 Conifer	a Absorbs minerals	1 + c
2 Root	b Reproduction	
3 Leaf	c Cone bearing	
4 Flower	d Photosynthesis	

(c) The photograph below shows forestry workers.



Identify **two** pieces of safety equipment that you can see in the photograph.

Piece of equipment 1. \_\_\_\_\_

Piece of equipment 2. \_\_\_\_\_

Name **one** other piece of safety equipment that forestry workers should wear.

\_\_\_\_\_

Suggest **one** precaution that should be taken when using machinery near high voltage wires.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(d) As part of your study of this module you visited a forestry related business or enterprise. Describe what you learned using the following headings as a guide.

Name of enterprise. \_\_\_\_\_

Products produced by the business or enterprise.

\_\_\_\_\_

Jobs or tasks of the workers in the business or enterprise.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

How the business or enterprise advertises its products.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

A negative effect this business or enterprise has on the environment.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

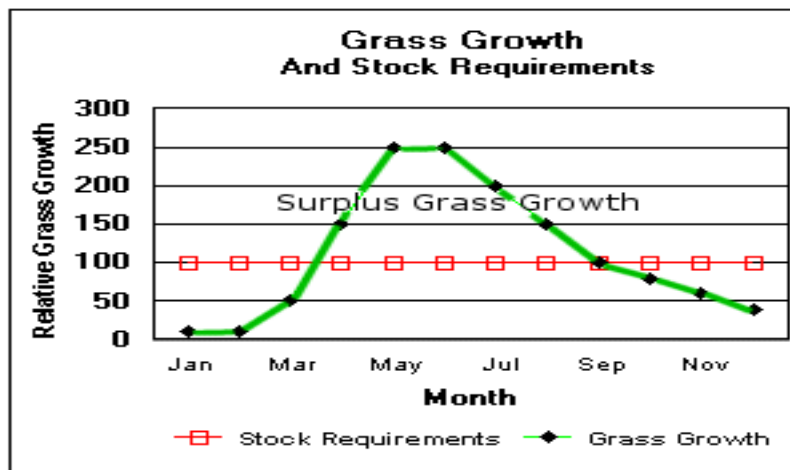
## 6. GRASS

(a) An acid used in the production of silage is called \_\_\_\_\_

(b) Indicate whether the following statements are true or false by ticking  the correct box.

- Hay is grass preserved by drying. True  False
- Grass is pollinated by bees. True  False
- Clover plants fix nitrogen. True  False

(c) The graph shows the growth of grass on a farm from January to November (green line). Answer the questions below using the information on the graph.



What does the red line show? \_\_\_\_\_

In what month should the stock be put out on grass? \_\_\_\_\_

Name a month when there is not enough grass for the stock. \_\_\_\_\_

Suggest a use for any extra grass. \_\_\_\_\_

- (d) The photograph shows a field that is regularly flooded in wet weather. Describe **two** methods by which you could drain the land.



Method 1. \_\_\_\_\_

\_\_\_\_\_

Method 2. \_\_\_\_\_

\_\_\_\_\_

Suggest **two** advantages **and** **two** disadvantages of the methods referred to above.

Advantage 1. \_\_\_\_\_

\_\_\_\_\_

Advantage 2. \_\_\_\_\_

\_\_\_\_\_

Disadvantage 1. \_\_\_\_\_

\_\_\_\_\_

Disadvantage 2. \_\_\_\_\_

\_\_\_\_\_

## 7. MILK AND MEAT PRODUCTION

(a) Red meat as part of our diet is a valuable source of \_\_\_\_\_

(b) Match each term in column A with a term from column B to give an answer in column C.  
See shaded example

Column A	Column B	Column C
1 Dual purpose	a Long life milk	
2 Pasteurise	b Yoghurt	
3 Ferment	c Kills harmful bacteria	
4 Sterilise	d Milk and Meat	4 + a

(c) During your study of this module you gave a talk or presentation on some aspect of the production of milk **or** meat.

What was the title of your presentation or talk? \_\_\_\_\_

\_\_\_\_\_

State **two** points of information given in your presentation or talk.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

Suggest **two** ways in which you could have improved your presentation or talk.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_



(d) The photographs show high quality animals, toy animals, and features inherited from parents.



Name **two** important inherited features in a quality milk **or** meat animal.

1. \_\_\_\_\_

2. \_\_\_\_\_

How could the quality of a milk **or** meat **herd** be improved?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

What is the role of breeding societies in the production of better quality milk **or** meat animals?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Cloning is increasingly used in animal breeding.  
What is cloning?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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<b>Question</b>	<b>Mark</b>
<b>Section 1</b>	
<b>1</b>	
<b>Section 2</b>	
<b>2</b>	
<b>3</b>	
<b>4</b>	
<b>5</b>	
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<b>Grand Total</b>	
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