



# Coimisiún na Scrúduithe Stáit State Examinations Commission

Leaving Certificate Applied 2007

## Vocational Specialism Agriculture/Horticulture (240 marks)

Wednesday 13 June 2007  
Morning 9.30 am to 11.00 am

### *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

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

*Section Two:* Candidate 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: 10px; width: 80%; margin: auto;"> <p><b>Centre Stamp</b></p> </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>	
	<p><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></p>	

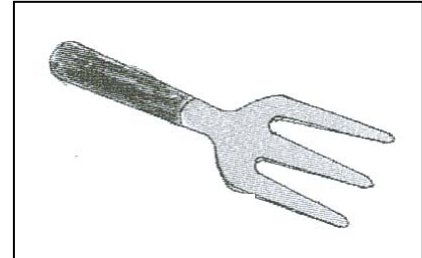
Question 1. This is made up of eighteen parts i.e. (a) to (r).

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

1.

(a) Identify the garden tool in the picture

\_\_\_\_\_



Before storing this tool for the winter you would

\_\_\_\_\_

(b) Excess watering of young seeds can cause a disease called \_\_\_\_\_

A chemical used to treat or prevent this disease is called a \_\_\_\_\_

(c) What information does a percentage ( % ) germination test give you?

\_\_\_\_\_

How many seeds would you use in your germination test?

\_\_\_\_\_

(d) The shrub in the picture is used in the garden because of its

\_\_\_\_\_

Name a shrub that has berries in winter

\_\_\_\_\_

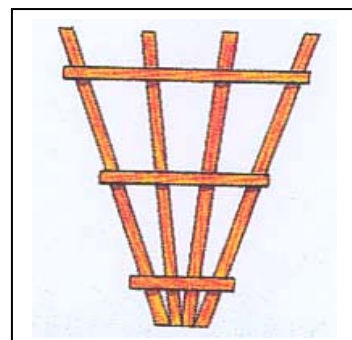


(e) This garden feature is called a

\_\_\_\_\_

How would you use this feature in the garden?

\_\_\_\_\_



- (f) Grass can be bought in rolls, ready grown to be laid as a lawn. Give **one** advantage and **one** disadvantage of this system

Advantage \_\_\_\_\_

Disadvantage \_\_\_\_\_

- (g) The quality of flowers or fruit or vegetables when harvested is maintained if they are quickly

\_\_\_\_\_

The state agency responsible for flower, fruit and vegetable production is

\_\_\_\_\_

- (h) Name the plant shown in the diagram

\_\_\_\_\_

Suggest **one** advantage of having this plant in your lawn

\_\_\_\_\_



- (i) **Two** environmental factors that can be controlled within a greenhouse are

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

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

- (j) Give **one** advantage and **one** disadvantage of the organic control of pests or diseases in plants

Advantage \_\_\_\_\_

Disadvantage \_\_\_\_\_

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

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

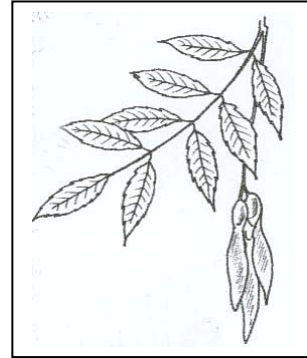
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(l) Identify the tree whose leaf is shown

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A uniquely Irish product made from this tree is

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(m) In forestry what is meant by the term 'thinnings'?

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Suggest a common use for forestry 'thinnings'

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(n) The warning symbol shown in the picture means

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Name **one** piece of personal safety equipment needed when working with a substance carrying this label

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(o) Rye grasses, bent grasses and fescues are used in lawn seed mix. Which of these grasses would be most plentiful in a luxury lawn seed mix?

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Which would be most plentiful in utility lawn seed mix?

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(p) Name the breed of milk or meat animal shown in the picture

\_\_\_\_\_

An animal reared for producing either milk or meat is said to be what type of breed?

\_\_\_\_\_



(q) State **two** actions you could carry out to reduce accidents in an Agriculture/Horticulture work place

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

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

(r) Identify the farm machine shown in the picture

\_\_\_\_\_

A hazard associated with this type of machine is

\_\_\_\_\_

\_\_\_\_\_



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

## **2. BASIC HORTICULTURE**

(a) The purpose of the leaves of a plant is to \_\_\_\_\_

(b) Match the tool in column A with the activity in column C by placing the most appropriate activity in column B. See shaded example.

<b>Column A</b>	<b>Column B</b>	<b>Column C</b>
<b>Spade</b>	<b>Digging and planting</b>	<b>Making a fine seed bed</b>
<b>Rake</b>		<b>Weeding, making drills</b>
<b>Dibber</b>		<b>Digging and planting</b>
<b>Hoe</b>		<b>Making a small hole for planting</b>

(c) Organic matter added to soil or to a potting mixture is generally good for plants.

Name **one** source of organic material for adding to soil or to a potting mixture

\_\_\_\_\_

In the case of the named organic material, describe an experiment you would carry out to show that this organic material does improve the growth of a plant.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- (d) You have had a visit from your Agricultural Advisor who has told you that your soil quality is poor. You have been advised to take steps to improve the situation.

Briefly describe **one** soil test that could have been carried out by the Agricultural Advisor

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State **two** possible causes of your soil problem

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

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

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Suggest **two** solutions to the problems identified above

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

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

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How will you know that your soil quality is improving?

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### 3. GARDEN DESIGN

(a) In a coastal garden the main problems are salt and \_\_\_\_\_

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

- A 'cottage garden' is not suitable for a city house      True       False
- A patio should always be next to the house      True       False
- A hard landscape feature is made of stone or cement      True       False

(c) The diagram shows an area of tilled soil that is being prepared for a lawn. Rows of timber pegs have been placed in the soil to help level the soil.



Briefly describe how the rows of timber pegs can be used to create a perfectly level lawn

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How would you use the timber pegs to create a gentle slope in the lawn?

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- (d) You have been asked to design a garden layout for a friend. You are free to design the garden in any way you wish. However, there is a very large chestnut tree close to the southern boundary of the garden and the tree cannot be cut down.

Suggest **two** factors which you must take into consideration in deciding what type of plants are suitable to be put in the garden

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

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

Describe **two** ways in which the very large tree will influence the environment for plant growth in the garden

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

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

In what way will the tree influence the maintenance jobs to be carried out in the garden?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Suggest **one** hard landscape or other feature that you would include in your design

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## 4. FLORISTRY, FRUIT & VEGETABLES.

(a) The watering of plant crops on a large scale is called \_\_\_\_\_

(b) Complete the following sentences in the spaces provided using the words listed below.

- Producing plants that are identical in every way is called \_\_\_\_\_
- Aphids can be naturally controlled using \_\_\_\_\_
- The length of time crops can be stored is called \_\_\_\_\_

**Packaging**

**Cloning**

**Shelf life**

**Crows**

**Copying**

**Ladybirds**

(c) You have been given 2 acres of land in order to set up a business to produce some flowers or fruit or vegetables. To borrow some money you need a business plan. What would you put in your business plan under each of the following headings?

1. Name the flower or fruit or vegetable you will grow and what demand there is for your produce

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2. Marketing or advertising your produce

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3. What list of materials or services would you include in the costing of your business plan?

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- (d) In the production of a flower or fruit or vegetable the environmental and soil conditions are shown in the table below. In relation to any **four** of these factors state how they would affect the production of your chosen flower or fruit or vegetable.

<b>Environmental and soil conditions</b>			
Number of pests	Level of nutrients in the soil	Drainage	Water supply
Soil pH	Wind direction	Slope of the land	Existing vegetation

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

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

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

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Factor 3. \_\_\_\_\_

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Factor 4. \_\_\_\_\_

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## 5. FORESTRY

(a) A coniferous tree that loses its leaves in winter is the \_\_\_\_\_

(b) Match the correct word in column A with the correct word in column B to give an answer in column C. **See shaded example**

Column A	Column B	Column C
1 Germination	a Leaves all year	1 + c
2 Stratification	b Buds	
3 Evergreen	c Growing seed	
4 Node	d Preparing seeds	

(c) Forestry parks have many uses and support many activities. Describe **three** of these uses or activities using the photographs below.



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

\_\_\_\_\_

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

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

(d) As part of your study of this module you studied forestry safety and the prevention of accidents. The photograph shows some of the safety equipment and clothing used by a forestry worker.



Name **two** items in the photograph and state how they protect the worker

Name of item 1. \_\_\_\_\_

How it protects \_\_\_\_\_

Name of item 2. \_\_\_\_\_

How it protects \_\_\_\_\_

Injuries can result from the improper use of equipment in tree planting. Name **two** possible injuries and suggest **two** ways in which workers can prevent these injuries when planting trees.

Name of injury 1. \_\_\_\_\_

Prevention \_\_\_\_\_

Name of injury 2. \_\_\_\_\_

Prevention \_\_\_\_\_

## 6. GRASS

(a) A poisonous plant found in grassland is \_\_\_\_\_

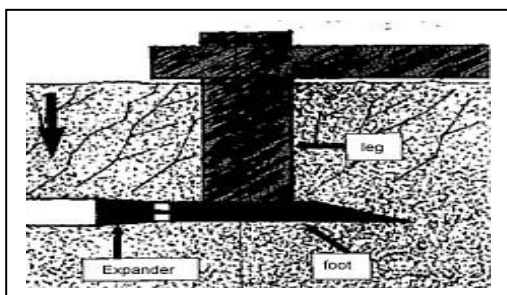
(b) State whether the following statements are true or false, by ticking  the correct box.

• Grass plants are a member of the cereal family      True       False

• Grass is pollinated by insects      True       False

• The thistle is a common weed in grassland      True       False

(c) The pictures show two ways of draining grassland, a mole drain and a drainage ditch



Suggest **one** advantage and **one** disadvantage of each method of draining land

### Mole Drain

Advantage \_\_\_\_\_

\_\_\_\_\_

Disadvantage \_\_\_\_\_

\_\_\_\_\_

### Drainage Ditch

Advantage \_\_\_\_\_

\_\_\_\_\_

Disadvantage \_\_\_\_\_

\_\_\_\_\_

(d) The following advice was given in a farming publication;

‘Spreading of silage effluent must be completed by September 30th each year. Soiled water and dairy washings can be spread on land all the year round where conditions are suitable. Spreading on land must be deferred where soils are saturated’.

Why is the spreading of farm wastes on land controlled? \_\_\_\_\_

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In what sort of conditions is the spreading of farm wastes on grassland best carried out?

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What advantage is the spreading of farm waste to the management of grassland? \_\_\_\_\_

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Suggest **one** possible disadvantage that the spreading of farm waste can have on an area of grassland

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## 7. MILK AND MEAT PRODUCTION

- (a) Specified Risk Material from slaughtered livestock is disposed of by \_\_\_\_\_
- (b) Match the correct word in column A with the correct statement in column B to give an answer in Column C. **See shaded example**

Column A	Column B	Column C
<b>1 Bulling</b>	<b>a Rich in antibodies</b>	<b>1 + d</b>
<b>2 Colostrum</b>	<b>b Producing milk</b>	
<b>3 Lactation</b>	<b>c Pregnancy</b>	
<b>4 Gestation</b>	<b>d Livestock in heat</b>	

- (c) During your study of this milk and meat production module you were involved in a visit to a farm. Describe what you learned using the following headings as a guide.

Organising the visit \_\_\_\_\_

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What you learned from the visit \_\_\_\_\_

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Health and safety rules for the visit \_\_\_\_\_

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(d) The large scale production of milk and meat animals requires proper housing. The picture shows the design and layout of a modern cubicle house



Name **two** features that are included for the health and safety of livestock

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

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

What feature is included to keep the area free from animal waste?

\_\_\_\_\_

Name a design feature which will help in controlling the environment within the house

\_\_\_\_\_

Suggest **two** ways in which the design and layout assist in the feeding of livestock

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

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

Suggest **two** other features of design or equipment that could be added to the house

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

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

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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>	
<b>6</b>	
<b>7</b>	
<b>Grand Total</b>	
<b>Disallowed</b>	
<b>Total</b>	