

**WARNING**

This Question Paper **MUST** be returned with your answer book(s) at the end of the examination, otherwise marks will be lost.

Write your Examination Number here ⇒



# Coimisiún na Scrúduithe Stáit State Examinations Commission

**LEAVING CERTIFICATE EXAMINATION, 2014**

**WEDNESDAY 18 JUNE - MORNING 09.30-12.00**

## **AGRICULTURAL ECONOMICS – HIGHER LEVEL** **(320 Marks)**

Answer **fifteen** questions from Part 1 and **four** questions from Part 2.  
You should not spend more than one hour on Part 1.

### **PART 1 (120 marks)**

Answer **fifteen** questions.  
Write the answers in the spaces provided.  
All questions carry equal marks (8 marks).

### **PART 2 (200 marks)**

Answer **four** questions.  
Write the answers in your answer book(s).  
All questions carry equal marks (50 marks).  
Do **not** write answers to Part 2 on this question paper.

**REMEMBER TO RETURN THIS QUESTION PAPER WITH THE ANSWER BOOK(S) USED  
TO ANSWER THE QUESTIONS IN PART 2.**

## PART 1 (120 marks)

Answer **fifteen** questions.

Write the answers in the spaces provided.

All questions carry equal marks (8 marks).

1. According to the 2010 Census of Agriculture for Ireland what is the (tick (✓) **one** answer in **each** case):

(i) Approximate total number of farms?      80,000       100,000       140,000

(ii) Approximate average farm size (hectares)?      21       33       48

2. A farm can be described as economically non-viable when: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Assume that nominal barley prices fall by 2% in a given year, while the general price level for the same year falls by 5%. What has happened to real barley prices? (tick (✓) **one** answer)

(i) Real barley prices have fallen by 7%     

(ii) Real barley prices have fallen by 3%     

(iii) Real barley prices have risen by 3%     

4. State **two** marketing deficiencies affecting Irish agriculture at the present time:

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

5. Answer the following questions in relation to the National Farm Survey (NFS):

(i) Who carries it out? \_\_\_\_\_

(ii) How often is it conducted? \_\_\_\_\_

6. Explain the term 'Capital Gains Tax': \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. In the theory of demand, explain the term 'Normal Good': \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. State **two** limitations of the milk quota system on the development of the Irish dairy sector:

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

9. In 2013 Seamus bought a **second-hand** tractor for €8,000. The tractor was manufactured and sold in 2007 for €32,000. How does the purchase of the tractor by Seamus in 2013 affect Gross Domestic Product (GDP) figures for that year? (tick (✓) **one** answer)

(i) The GDP for 2013 decreases by €24,000

(ii) The GDP for 2013 remains unchanged

(iii) The GDP for 2013 increases by €8,000

10. Assume that 4 units of Input X produce 100 units of Output Y and 5 units of Input X produce 120 units of Output Y, all other inputs held constant. Calculate each of the following:

(i) **Average product** of Y from 4 units of Input X: \_\_\_\_\_

(ii) **Marginal product** of Y from the 5th unit of Input X: \_\_\_\_\_

11. Explain the term ‘Cost-push Inflation’ and give one example from Irish agriculture:

**Explanation:** \_\_\_\_\_  
\_\_\_\_\_

**Example:** \_\_\_\_\_

12. Explain the term ‘EU Directive’ and give **one** example from Irish agriculture:

**Explanation:** \_\_\_\_\_  
\_\_\_\_\_

**Example:** \_\_\_\_\_

13. In what way does reduced economic growth affect the opportunity cost of labour in agriculture?

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

14. Assume that in Ireland average family farm income is 28% lower than average industry earnings. State **two** reasons why care is needed in interpreting this gap:

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

15. State **two** principles of a co-operative:

- (i) \_\_\_\_\_
- (ii) \_\_\_\_\_

16. Which of following commodities would you expect to be the most price **inelastic** and the most price **elastic** in terms of demand? (tick (✓) **one** answer **in each case**)

Commodities	Meat	Food	Fillet steak	Beef
(i) Most inelastic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) Most elastic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17. Outline what is meant by the term ‘Greening’ under the CAP reforms agreed in 2013:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

18. Explain the term ‘Public Liability Insurance’ with reference to farming: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

19. If the exchange rate of the euro depreciates/decreases relative to other currencies, what would be the most likely effect on the following? (tick (✓) **one** answer **in each case**)

- (i) The cost of imports into the euro area:      Increase       Decrease       No change
- (ii) Inflation in the euro area:      Increase       Decrease       No change

20. State **one** benefit and **one** challenge that the signing of a free trade agreement between the EU and USA may have for **Irish agri-business**:

Benefit: \_\_\_\_\_

\_\_\_\_\_

Challenge: \_\_\_\_\_

\_\_\_\_\_

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## PART 2 (200 marks)

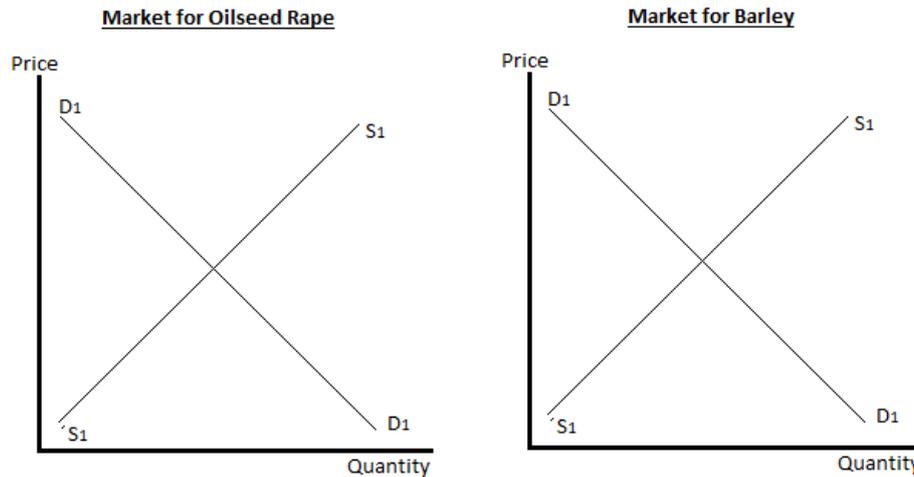
Answer **four** questions.

Write the answers in your answer book(s).

All questions carry equal marks (50 marks).

Do **not** write answers to Part 2 on this question paper.

1. (a) Outline **three** variables that influence the **supply** of agricultural commodities.



- (b) The diagrams above show the demand ( $D_1D_1$ ) and supply ( $S_1S_1$ ) curves in the markets for oilseed rape and barley.

(Note: Assume oilseed rape and barley **are** substitute goods in production, but **are not** substitute goods in consumption)

Copy these diagrams into your answer book and use them to show the impact on the **market price and quantity** of oilseed rape **and** barley for **each** of the following (i) and (ii) below. Explain your answer in **each** case.

(Note: a separate copy of **both** diagrams is required in **each** case)

- (i) The publication of research findings highlighting the health benefits associated with eating food containing barley.
- (ii) The provision of a subsidy for farmers per hectare of oilseed rape grown.

[50 marks]

2.

- (a) Explain **both** of the following statements:

- (i) The total supply of agricultural land is highly inelastic;
- (ii) The demand for agricultural land is a derived demand.

- (b) Outline **three** factors that determine the price of land.

- (c) Discuss **two** advantages **and** **two** disadvantages that a farmer may experience from leasing land instead of purchasing it.

[50 marks]

3. The following data relate to the assets and liabilities of an Irish **beef** farm for year ended 30/12/2012.

Assets/Liabilities	€
Bank overdraft	15,000
Breeding livestock	40,000
Cash and debtors	18,000
Credit card debt	2,000
Feed and fertilizers	7,000
Forage crops	3,000
Land and buildings	250,000
Loans outstanding for buildings	144,000
Loans outstanding for machinery	19,000
Machinery and equipment	25,000
Saleable crops	2,000
Trading livestock	23,000

- (a) Construct a balance sheet for this farm showing: fixed assets; current assets; long-term liabilities and current liabilities. Calculate the **net worth** and input it on the balance sheet.
- (b) Calculate the liquidity ratio **and** debt to net worth ratio for the farm (report your answer to two decimal places). Outline what **each** result tells you about the financial position of the farm.
- (c) Assume you are a financial advisor for this farmer. Based on the above data and analysis, what advice would you give the farmer to secure the future financial viability of the business?

[50 marks]

4. The following table shows the quantity and price of meat commodities in 2000 and 2011.

	2000		2011	
	Quantity (heads '000)	Price (€ per head)	Quantity (heads '000)	Price (€ per head)
<b>Cattle</b>	2,000	670	2,000	938
<b>Pigs</b>	3,000	90	4,000	108
<b>Sheep</b>	4,000	60	2,000	96

- (a) Use the above data to calculate a **simple average price index** for 2011 for the three meat commodities. Explain your answer.  
(**Note:** use the base year 2000 = 100 and report your answer to the nearest whole number)
- (b) Outline the benefit of using a **weighted price index** instead of a **simple average price index**.
- (c) Discuss how a farmer might seek to increase the prices received for his/her agricultural output.

[50 marks]

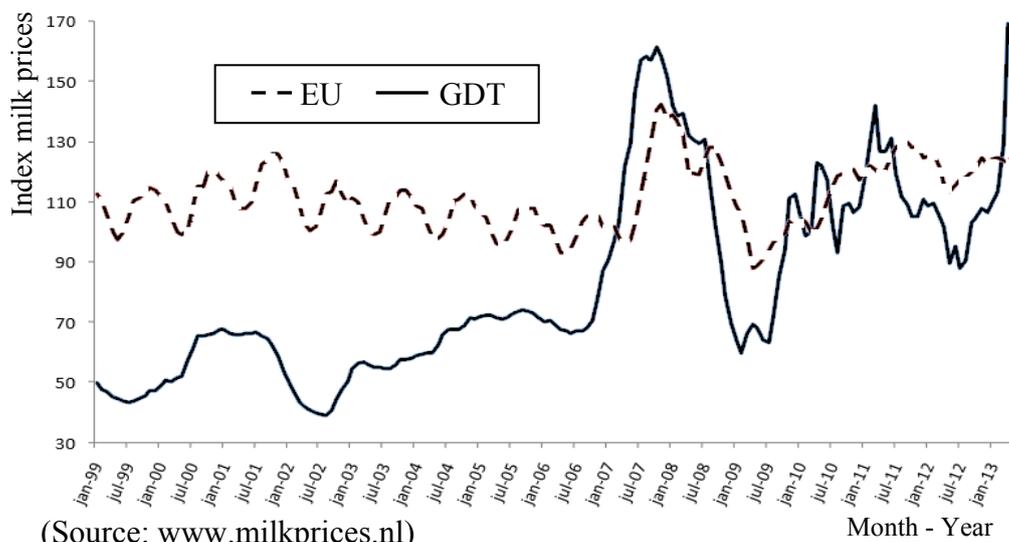
5. The following table shows the effect of different levels (A to F) of fertiliser use (kgs per hectare) on the yield of Crop Y (tonnes per hectare).

	A	B	C	D	E	F
Fertilizer use (kgs per ha)	0	50	100	150	200	250
Crop Y yield (tonnes per ha)	2.0	3.0	3.8	4.4	4.8	5.0

- (a) Using the data in the above table, construct a graph showing the relationship between fertiliser use (horizontal x-axis) and crop yield (vertical y-axis). Label both axes **and** the curve identified by the graph.  
(Note: You may use graph paper for this question)
- (b) Define the economic law of diminishing marginal returns **and** explain how it is illustrated by the graph.
- (c) Farmer John currently operates at point D (i.e. he uses 150 kgs of fertiliser per ha and gets a crop yield of 4.4 tonnes per ha). He is thinking about operating at point E. Does it make economic sense to move from point D to point E, if fertiliser costs €1 **per kg** and the sales price of the crop is €100 **per tonne**? Explain your answer.

[50 marks]

6. Average EU milk prices and Global Dairy Trade (GDT) prices (March 2010 = 100).



- (a) The graph above shows the convergence of EU milk prices with global prices (GDT) since the mid-2000s. Outline the role of EU policy reforms **and** global demand for milk products in creating this convergence.
- (b) State **two** competitive advantages that Irish dairy farmers have in a global market.
- (c) Discuss **two** opportunities available to the Irish dairy sector to improve its future competitiveness on the global market.

[50 marks]

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