

WARNING

You must return this Question Paper 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 2017

WEDNESDAY 21 JUNE

MORNING 9:30 - 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. Define "Capital" as a factor of production in economics, **and** provide **two** examples of it from Irish farming.
 - (i) Definition: _____

 - (ii) Example 1: _____ Example 2: _____

2. (i) In 2015, the Central Statistics Office (CSO) estimated that the value of Irish agri-food exports was approximately:
 €6 bn €12 bn €18 bn [Tick (✓) the correct box]
- (ii) Under Food Wise 2025, by 2025 this figure is targeted to increase to:
 €19 bn €24 bn €29 bn [Tick (✓) the correct box]

3. A decrease in both the demand for and the supply of agricultural labour should lead to what outcome for agricultural wages and labour employment? [Tick (✓) the correct box in **each** case]
 - (i) Agricultural wages: Definite decrease Possible decrease
 - (ii) Agricultural labour employment: Definite decrease Possible decrease

4. Explain the difference between Capital Gains Tax and Capital Acquisitions Tax, as they apply to Irish farming. _____

5. (i) The Consumer Price Index (CPI) measures the rate of inflation. Outline how it is constructed.

- (ii) Identify the approximate annual CPI for 2016:
 0.0% 2.5% 4.5% [Tick (✓) the correct box]

6. Outline **two** uses that are made of the data gathered by the National Farm Survey (NFS).
 - (i) Use 1: _____

 - (ii) Use 2: _____

7. Explain the difference between “Production” and “Output” in the context of agriculture.

8. Complete the following table by filling in the correct average family farm income (FFI) in 2015 for each category of Irish farming, using the figures in the following list. Use each figure only once.

€33,731

€63,020

€15,791

Category of Irish Farming	Dairy farmers	Sheep farmers	Tillage farmers
Average Family Farm Income			

9. Outline **two** potential economic threats to Irish agri-food exports because of the UK’s intended departure from the European Union.

(i) Threat 1: _____

(ii) Threat 2: _____

10. If the price elasticity of demand for steak is -1.5 , and there is a 10% decrease in price, calculate the expected **percentage increase** in the number of steaks sold. Show your workings.

Workings:
Answer:

11. Outline **two** assumptions that underlie a perfectly competitive market structure.

(i) Assumption 1: _____

(ii) Assumption 2: _____

12. Explain why the relative contribution of farmers to the food production chain usually decreases as countries become more developed over time.

13. Outline **one** reason why land area (hectares) is a poor measure of business size in the context of farming.

14. Identify **two** items of financial information a bank may request a farmer to provide before granting a loan.

1. _____

2. _____

15. Define **each** of the following types of inflation.

(i) Demand-pull inflation: _____

(ii) Cost-push inflation: _____

16. The Irish Farmers Journal (IFJ) Land Price Report 2015 reported a year-on-year decrease in agricultural land prices. Outline **one** possible reason for this decrease.

17. Explain the difference between “Third Party Insurance” and “Comprehensive Insurance”.

18. Outline **three** characteristics of the industry that tend to restrict the improvement of marketing efficiency in agriculture.

1. _____

2. _____

3. _____

19. The impact of a price-cost squeeze on farming is lessened if there are jobs available in other sectors of the economy. Explain why this is the case.

20. Distinguish between an EU Regulation and an EU Directive.

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PART 2 (200 marks)

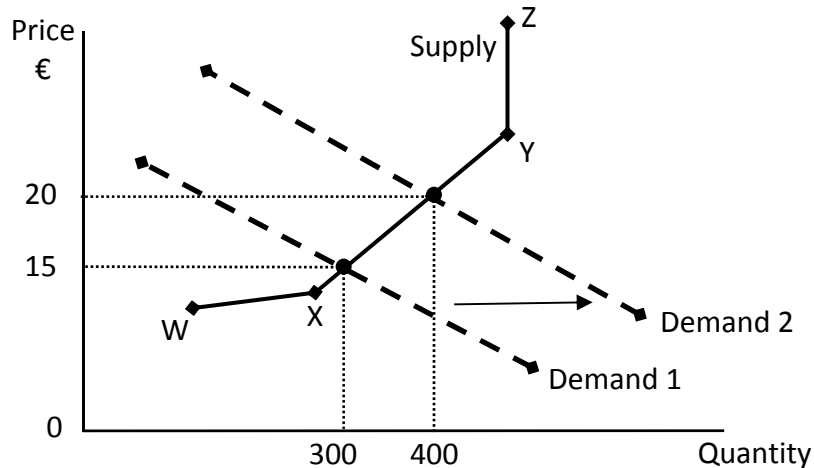
Answer **four** questions.

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. The market diagram for an agricultural product is shown below.
The supply curve is in three parts (W-X, X-Y, and Y-Z).



- (a) State whether the change in demand from Demand 1 to Demand 2 shows an increase or a decrease in demand. Explain your answer.
- (b) Outline **three** factors that could have caused the change in demand shown in the diagram, **other** than changes in average consumer income.
- (c) Assume that this change in demand is due to a change in average consumer income from €10,000 to €11,000.
- (i) Calculate the Income Elasticity of Demand (YED). Show your workings.
- (ii) Based on the YED, state whether the product is a luxury, inferior, or necessary good. Explain your answer.
- (d) For each section of the supply curve (W-X, X-Y, and Y-Z), the supply conditions are different. Explain what causes this change in supply conditions.

[50 marks]

2. The Common Agricultural Policy (CAP), being one of the oldest policies of the European Union, has been reformed on many occasions.

- (a) The MacSharry reform and Agenda 2000 were major CAP reform programmes. Briefly outline the reforms that were introduced under **each** programme.
- (b) Outline **two** arguments in support of the CAP and **two** criticisms of the CAP.
- (c) Another CAP reform was introduced in 2013. The Single Farm Payment was replaced by four distinct Direct Payment schemes.

Name **and** briefly describe **three** of these Direct Payment schemes.

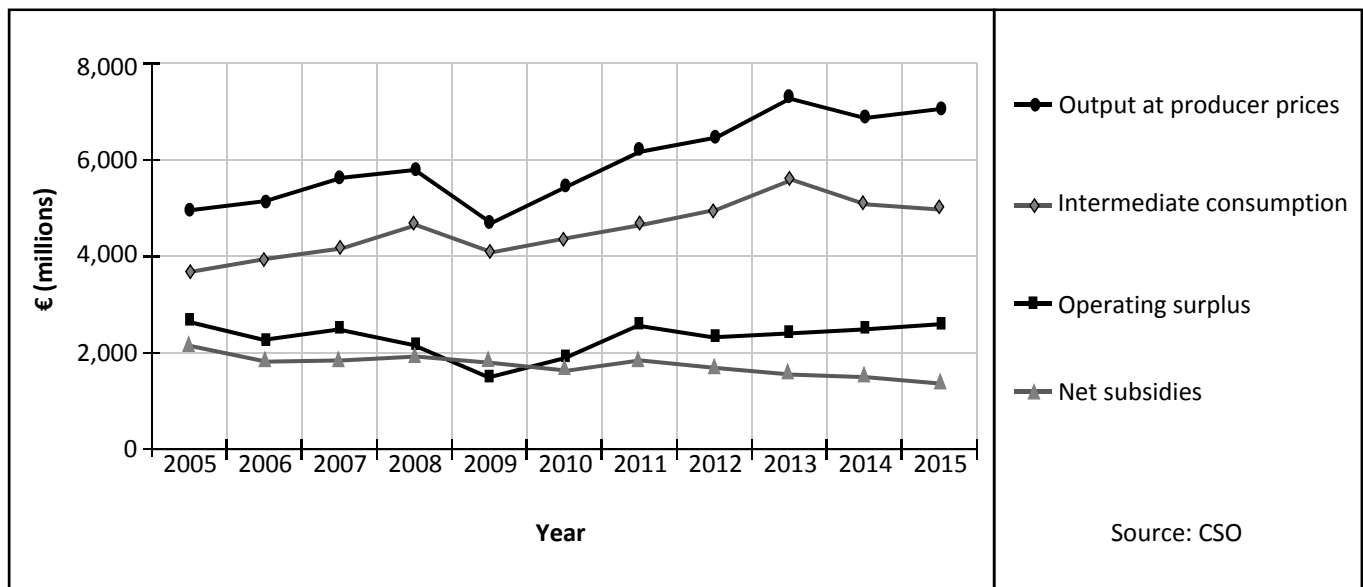
[50 marks]

3. The following is a list of the assets and liabilities of a family farm on 31st December 2016.

Debtors	€55,000	Land and Buildings	€680,000	Creditors	€62,000
Machinery	€250,000	Trading Livestock	€100,000	Breeding Stock	€190,000
Cash	€45,000	Long-term Loans	€620,000	Bank Overdraft	€38,000

- (a) Draft a Balance Sheet for the farm on that date, showing a breakdown of Fixed Assets, Current Assets, Current Liabilities, and the amount of Net Worth (Capital).
- (b) Explain the difference between “liquidity” and “solvency” in the context of a typical farm business.
- (c) Calculate **and** interpret the following financial ratios from the above information:
- (i) the acid test liquidity ratio
- (ii) the debt to net worth ratio (i.e. debt to capital ratio).
- (d) Based on the financial ratios you calculated in part (c), what financial advice would you offer this farmer in terms of securing the future financial position of the farm? **[50 marks]**

4. The following graph shows the output, input, and income in Irish agriculture from 2005 to 2015.



- (a) Explain what is meant by **each** of the following terms, in the context of Irish agriculture:
- (i) Output at Producer Prices
- (ii) Net Subsidies
- (iii) Operating Surplus.
- (b) Using the information in the graph, outline **and** give reasons for the trends in Irish agricultural **operating surplus** in the period 2005 to 2015.
- (c) Intermediate consumption can arise from:
- A. Resources produced and consumed within the farming sector
- B. Resources produced by non-farming firms but consumed mainly within farming
- C. Resources produced by non-farming firms and mainly consumed by non-farming sectors.

In the case of **one** of the categories **A**, **B**, or **C** above:

- (i) identify **two** examples relevant to Irish farming
- (ii) discuss how the demand, supply, **and** price can be expected to react to a general decline in agricultural output prices.

[50 marks]

5. The table below shows the maximum possible barley yields at various levels of labour input on a tillage farm.

Labour Input (man hours)	Yield per Hectare (tonnes of barley)	Marginal Revenue Product (MRP)
1	70	–
2	100	
3	140	
4	160	
5	170	

- (a) (i) Plot a **total product curve**, showing the relationship between labour input and barley yields (you may use graph paper for this). Label each axis clearly.
- (ii) Explain what is meant by the term “Diminishing Returns”, **and** use your graph to identify the level of output beyond which diminishing returns start to occur.
- (b) (i) Define the concept “Marginal Revenue Product” (MRP) and outline how it is calculated.
- (ii) Copy the above table into your answer book. If the price of barley is €100 per tonne, complete the MRP column in your table by calculating the MRP at **each** level of production. Show your workings.
- (c) (i) Explain the difference between “Technical Efficiency” and “Economic Efficiency”.
- (ii) If the wage rate for labour is €20 per hour, state the level of output at which the above farm is both technically **and** economically efficient. Give reasons for your answer.

[50 marks]

6. Read the information below and answer the questions that follow.

Susan is a dairy-beef farmer. She is considering expanding her dairy operations and stopping her beef production completely. The following are the financial details for this change:

- Susan currently has a herd of 60 dairy cows, and is considering increasing this by 10 cows.
- Her dairy cows have an estimated variable cost of €640 per head per year, and produce an average of 10,000 litres of milk per head per year. The current price for milk, which Susan estimates will remain unchanged over the coming years, is €0.33 per litre. Susan estimates that the 10 new dairy cows will also produce an extra 10 calves per year in total, which can be sold at €300 per head.
- Susan will maintain her herd using her own stock of heifers. Because of this, she will have two less heifers to sell each year, which would have earned her €1,300 per head.
- Susan currently keeps 20 head of beef stock per year, which incur an annual variable cost of €360 per head. She currently sends 10 for slaughter each year, which earn an average of €1,250 per head.
- To buy the extra dairy cows and improve her farm infrastructure, Susan will take out a loan for €65,000. She will need to make annual repayments of €200 per €1,000 of loan.

- (a) Using the above information, prepare a **partial budget** for Susan’s plan covering the first year of operation, taking into account revenues foregone and cost savings, if applicable. Calculate the total deficit **or** surplus that will be generated. Show all your workings.
- (b) A partial budget is just the first step in a more comprehensive financial plan, which also includes a cash flow budget.
- (i) Outline how a cash flow budget is constructed.
- (ii) State **three** uses that can be made of a cash flow budget in financial planning.

[50 marks]

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Leaving Certificate 2017 – Higher Level

Agricultural Economics

Wednesday 21 June

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