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WARNING

You must return this Question Paper with your answer book(s)
at the end of the examination, otherwise marks will be lost.

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Write your examination number here:

Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate Examination 2019

Friday 21 June   Morning 9:30 to 12:00

AGRICULTURAL ECONOMICS – HIGHER LEVEL
(320 Marks)

PART 1   (120 marks)

Answer **fifteen** questions.
Write the answers in the spaces provided.
All questions carry equal marks (8 marks).
You should not spend more than one hour on Part 1.

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.

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Part 1 (120 marks)

Answer 15 questions. Write the answers in the spaces provided. All questions carry 8 marks.

1. Identify whether each of the following statements is true or false.
[Tick (✓) **one** box in **each** case]

	True	False
(i) There are approximately 250,000 family farms in Ireland	☐	☐
(ii) Nearly half of Irish farm holders or their spouse work off-farm	☐	☐
(iii) Demand for food as a generalised commodity is price inelastic.	☐	☐

2. State **two** factors that would cause an increase in the market supply of malting barley.

(i) _____

(ii) _____

3. Complete the table below by filling in the percentage of Irish Family Farm Income (FFI) accounted for by direct payments for each type of farming. Use the figures in the following list. Use each figure only once. (Source: NFS 2017)

113%   65%   23%

Farm type	Dairy	Cattle Rearing	Tillage
Direct Payments as a % of FFI			

4. Farmers can calculate their income tax for a year based on their average profit or loss over the previous 5 years. Explain the benefit to farmers of being able to calculate their income tax in this way.

_____

_____

_____

5. Circle the correct value below to complete the sentence. Give a reason for your answer.

"The income elasticity of demand for low price cuts of beef is **+2.5 / -2.5 / -0.4** ."

Reason: _____

_____

_____

6. Identify **two** factors that may determine the proportion of income farmers pay into a pension.

(i) _____

(ii) _____

7. Outline one economic advantage **and** one economic challenge that are created by increased immigration in rural areas.

Advantage: _____

_____

Challenge: _____

_____

8. Explain the difference between the roles of Teagasc and the Irish Farmers' Association (IFA).

_____

_____

_____

9. Identify what type of change will occur in each of the following, if there is an increase in both the supply **and** demand for agricultural land. [Tick (✓) **one** box in **each** case]

		Definite rise	Definite fall	Could be a rise or a fall
(i)	Price of land	☐	☐	☐
(ii)	Quantity of land used	☐	☐	☐

10. Identify whether each of the following is or is not included in the calculation of Irish Family Farm Income (FFI). [Tick (✓) **one** box in **each** case]

		Is included	Is not included
(i)	Overhead farm costs	☐	☐
(ii)	Wage earned from working part-time in construction	☐	☐
(iii)	Social welfare payments	☐	☐

11. Outline **one** economic disadvantage of capital gains tax on agricultural land.

_____

_____

12. Assume the market milk price received by dairy farmers rises by 2% at a time when general inflation is 3%. Complete the following statement by circling the correct word in **each** case.

"The **imputed / real** price of milk has

risen / fallen by **one / three / five** per cent."

13. Explain the difference between a simple price index and a composite price index.

_____

_____

_____

14. Give **one** example from farm production of **each** of the following.

(i) Substitutes / competing products: _____ and _____

(ii) Complements / joint products: _____ and _____

15. Ireland has recently experienced strong economic growth.
State **two** possible economic challenges that can be created by excessive economic growth.

(i) _____

(ii) _____

16. **Apart** from financial planning, state **two** factors a farmer might consider before deciding to diversify into a farm shop using some unused buildings on the farm.

(i) _____

(ii) _____

17. Calculate the loan repayment capacity of a farmer with a total income of €80,000 and annual family living expenses of €60,000 if the annual repayment on a €1,000 loan is €250.

Calculations:	Answer:

18. Outline why a firm under perfect competition is a price taker.

_____

_____

19. Assume the agricultural output price index was 110 in 2016 and 121 in 2017, while the agricultural input price index remained unchanged in the same period. Complete the following statement by circling the correct word or percentage in **each** case.

	Calculations:
"The terms of trade for agriculture **increased / decreased** in 2017 compared to 2016 by **10% / 11% / 21%** ."	

20. At present, a farmer's marginal revenue is less than the marginal cost of production. Should the farmer increase or decrease his level of output? Tick (✓) **one** box. Give a reason for your answer.

☐ increase   ☐ decrease

Reason: _____

_____

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Part 2 (200 marks)

**Answer 4 questions. Write the answers in your answer book(s). All questions carry 50 marks.
Do not write answers to Part 2 on this question paper.**

1. **(a)** Although most labour on Irish farms is provided by the farm holder and her/his family, on average 7% of Irish agricultural labour is provided by hired workers (CSO, 2016).

   (i) Outline **three** factors that determine the level of demand for hired farm labour.

   (ii) Outline **two** factors that determine the elasticity of demand for hired farm labour.

   (iii) Outline **two** things a farmer can do to increase the efficiency of their hired labour.

   (b) Explain the difference between a factor of production and an intermediate input. Give one example of **each** from farming to illustrate your answer.

   (c) The supply curves, **S1** and **S2**, for two intermediate agricultural inputs are shown below. One of the inputs is specific to agriculture; the other is not. Because of this, they have different levels of price elasticity within the agricultural sector.

   Which graph represents an intermediate input that is specific to the agricultural sector? Explain your answer, with reference to an example.
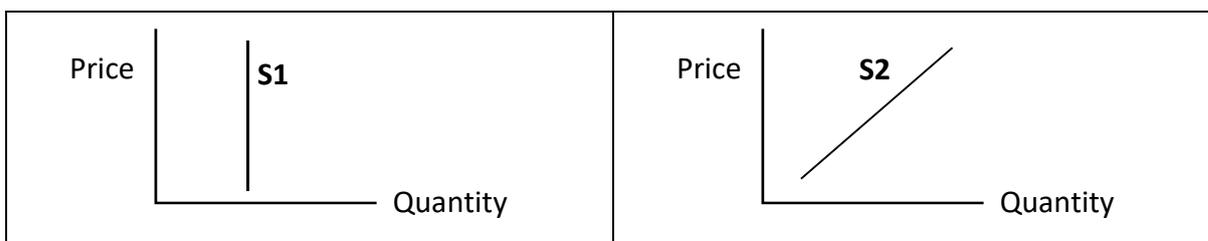
2. **(a)** Outline **three** arguments in support of Irish government (or EU) interventions in the farming sector.

   (b) The European Commission launched proposals for CAP Reform on 1 June 2018 as part of its plans for the post-2020 Common Agricultural Policy.

   (i) Under "subsidiarity", the Commission will give greater freedom to member states to implement CAP. Briefly outline this new way of working under the proposals.

   (ii) State **two** of the Commission's specific proposals for the post-2020 CAP objectives.

   (c) Ireland is one of the least forested countries in the EU [11% of land forested compared to an average of 34% (Forest Europe, 2015)] and has one of the lowest levels of female participation in the agricultural workforce [12% participation compared to an average of 35% (Eurostat, 2016)].

   (i) Outline **two** economic benefits that could arise from Ireland increasing the proportion of forested land, **and one** government policy that could be used to achieve this.

   (ii) Outline **two** economic benefits that could arise from Ireland increasing female participation in the agricultural workforce, **and one** government policy that could be used to achieve this.

3. **(a)** Assume the following data apply in the case of Noreen's farm for the current year:
    - Total fixed costs: €100
    - Variable costs: €50 per unit of output
    - Price: €75 per unit of output.

       (i) Copy the table below into your answer book **and** use the above information to complete the table.

Output	Total Fixed Costs	Total Variable Costs	Total Costs	Total Revenue
0				
2				
4				
6				

       (ii) On a **single graph**, with output on the x-axis and revenue/costs on the y-axis, plot **each** of the following (you may use graph paper):
- total fixed costs (label the curve **FC**)
- total variable costs (label the curve **VC**)
- total costs (label the curve **TC**)
- total revenue (label the curve **TR**).

       (iii) Explain what is meant by the term economic breakeven **and** identify Noreen's breakeven level of output using your table from part **(a)(i)** or your graph from part **(a)(ii)**.

       (iv) Assume Noreen is currently producing less than the breakeven level of output. State whether Noreen will be able to maintain this level of output in the short run **and** in the long run. Give a reason for your answer in **each** case.

    (b) Assume that, for Aodh's farm, labour costs are €100 per unit and capital costs are €300 per unit. To produce 100 units of output, Aodh can use one of these two methods:

          Method A: 10 units of labour and 15 units of capital
          Method B: 20 units of labour and 10 units of capital.

       (i) Define technical efficiency. Is it possible to identify which of the above methods is technically efficient? Explain your answer.

       (ii) Define economic efficiency. Is it possible to identify which of the above methods is economically efficient? Explain your answer.

4. **(a)** Outline **three** areas in which Irish dairy farmers have a competitive advantage in a global market.

    (b) Irish agri-food exports increased by 74% between 2009 and 2017, with particularly strong growth in markets outside of the EU, especially the US and China (DAFM, 2018). Outline **two** economic opportunities and **two** economic challenges that are associated with this development in trade for Irish agri-food exporters.

    (c) Outline how the trade in Irish agri-food products could be influenced by **each** of the following:

       (i) A lower level of economic growth in the UK relative to other trading partners as a result of Brexit uncertainty

       (ii) A rise in the exchange rate value of the US dollar relative to the Euro.

5. The following table shows the level of gross fixed capital formation in Irish agriculture from 2009 to 2016 (source: CSO). Figures are given in € millions.

	2009	2010	2011	2012	2013	2014	2015	2016
Farm Buildings	244	155	194	161	189	208	225	227
Land Improvement	40	47	60	36	42	47	50	51
Transport	118	111	95	99	103	113	123	124
Agricultural Machinery	179	156	202	312	354	375	386	403
Breeding Stock	-44	-55	19	83	-20	1	128	35
Other Equipment	27	18	30	25	42	41	35	33
Total	563	433	599	716	710	784	948	872

(a) Using the information in the table, as well as your own background knowledge, outline why **total** gross fixed capital formation:
   (i) declined from 2009 to 2010
   (ii) generally grew from 2010 to 2015
   (iii) declined again from 2015 to 2016.

(b) In Ireland, the rate of interest that farmers pay on borrowings is on average 0.85 percentage points higher than for other small to medium sized enterprises (SMEs). Interest rates on borrowings in Ireland also tend to be higher than in other EU countries (Central Bank of Ireland, 2017).
   (i) Outline **two** possible reasons why borrowing costs for farmers are higher than other SMEs in Ireland.
   (ii) Outline **two** possible reasons why Irish borrowing costs tend to be higher than in other EU countries.

(c) In 2017, the Agriculture Cashflow Support Loan Scheme was introduced. State the aim of this scheme **and** outline the criteria under which credit was made available.

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6. The assets and liabilities of Miriam's farm as at 31 December 2018 were as follows:

Bank overdraft	€40,000	Breeding stock	€100,000	Cash	€20,000
Creditors	€60,000	Debtors	€30,000	Land & buildings	€500,000
Long-term loans	€100,000	Machinery	€300,000	Trading livestock	€120,000

(a) Prepare a Balance Sheet for Miriam's farm as at the end of 2018.
   Include the following on your balance sheet:
   (i) A breakdown of Fixed Assets, Current Assets, Current Liabilities, and Long-term Liabilities
   (ii) The amounts of Working Capital, Capital Employed, and Net Worth.

(b) Outline what **each** of the following figures, as calculated by you, represents:
   (i) Working Capital
   (ii) Capital Employed
   (iii) Net Worth.

(c) Using relevant capital ratios in **each** case, examine and draw conclusions regarding the liquidity **and** solvency situations in Miriam's farm based on your answers to parts **(a)** and **(b)** above.

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