

Coimisiún na Scrúduithe Stáit State Examinations Commission

Leaving Certificate 2015

Marking Scheme

Agricultural Economics

Ordinary Level

Note to teachers and students on the use of published marking schemes

Marking schemes published by the State Examinations Commission are not intended to be standalone documents. They are an essential resource for examiners who receive training in the correct interpretation and application of the scheme. This training involves, among other things, marking samples of student work and discussing the marks awarded, so as to clarify the correct application of the scheme. The work of examiners is subsequently monitored by Advising Examiners to ensure consistent and accurate application of the marking scheme. This process is overseen by the Chief Examiner, usually assisted by a Chief Advising Examiner. The Chief Examiner is the final authority regarding whether or not the marking scheme has been correctly applied to any piece of candidate work.

Marking schemes are working documents. While a draft marking scheme is prepared in advance of the examination, the scheme is not finalised until examiners have applied it to candidates' work and the feedback from all examiners has been collated and considered in light of the full range of responses of candidates, the overall level of difficulty of the examination and the need to maintain consistency in standards from year to year. This published document contains the finalised scheme, as it was applied to all candidates' work.

In the case of marking schemes that include model solutions or answers, it should be noted that these are not intended to be exhaustive. Variations and alternatives may also be acceptable. Examiners must consider all answers on their merits, and will have consulted with their Advising Examiners when in doubt.

Future Marking Schemes

Assumptions about future marking schemes on the basis of past schemes should be avoided. While the underlying assessment principles remain the same, the details of the marking of a particular type of question may change in the context of the contribution of that question to the overall examination in a given year. The Chief Examiner in any given year has the responsibility to determine how best to ensure the fair and accurate assessment of candidates' work and to ensure consistency in the standard of the assessment from year to year. Accordingly, aspects of the structure, detail and application of the marking scheme for a particular examination are subject to change from one year to the next without notice.



LEAVING CERTIFICATE 2015

AGRICULTURAL ECONOMICS

ORDINARY LEVEL

MARKING SCHEME

AND

EXPECTED RESPONSES

Marking Scheme and Expected Responses for use with the Marking Scheme

In considering the marking scheme the following points should be noted:

- The Expected Responses presented are not exclusive or definitive. Marks may be awarded for any other correct answers.
- The Expected Responses in many cases contain key phrases which must appear in the candidate's answer in order to merit the assigned marks.
- Further relevant points of information presented by candidates are marked and rewarded on their merits.

The detail required in any answer is determined by the context and the manner in which the question is asked and by the number of marks assigned to the answer in the examination paper. Requirements may therefore vary from year to year.

Leaving Certificate Examination, 2015 AGRICULTURAL ECONOMICS - Ordinary Level

Marking Scheme

PART 1 (120 Marks)

20 QUESTIONS - 15 QUESTIONS TO ANSWER.

ALL QUESTIONS CARRY EQUAL MARKS (8 marks)

1.	2 @ 4 marks each	11.	8 marks (3 m + 3 m + 2 m)
2.	2 @ 4 marks each	12.	8 marks (4 m + 4 m)
3.	2 @ 4 marks each	13.	2@4markseach
4.	2 @ 4 marks each	14.	2@4markseach
5.	2 @ 4 marks each	15.	2@4markseach
6.	8 marks (3 m + 3 m + 2 m)	16.	8 marks (3 m + 3 m + 2 m)
7.	2 @ 4 marks each	17.	2 @ 4 marks each
8.	2 @ 4 marks each	18.	2@4markseach
9.	2 @ 4 marks each	19.	2@4markseach
10.	8 marks (3 m + 3 m + 2 m)	20.	2 @ 4 marks each

6 QUESTIONS - 4 QUESTIONS TO ANSWER

ALL QUESTIONS CARRY EQUAL MARKS (50 marks).

1.	(a)	(i)	Diagram:		
			Labelling	3 @ 2 marks each	
			Curves	2 @ 7 marks each	
		(ii)	Equilibrium price	3 marks	
			Equilibrium quantity	3 marks	26
	(b)	(i)	Effect on demand curve Effect on supply curve	2 marks 2 marks	
		(ii)	Shift demand curve to right Shift supply curve to right	2 marks 2 marks	
		(iii)	Effect on market price Effect on market quantity	2 @ 2 marks 2 @ 2 marks	16
	(c)		Explanation	4 marks (3 + 1)	0
			Example	4 marks	8

[50 marks]

2.	(a)	Two	contributions to local communities	16 marks (2 @ 8 marks(5+3)	16
	(b)	(i)	Description of quota system	12 marks (3 @ 4 marks)	12
		(ii)	Three differences	22 marks (8 + 7 + 7)	22

[50 marks]

3.	(a)	Two contributions to economy	16 marks (2 @ 8 marks)	16
	(b)	Discussion on agri exports	16 marks (2 @ 8 marks (5+3)	16
	(c)	Positive consensus Two reasons for prospects	2 marks 16 marks (2 @ 8 marks (5+3)	18

[50 marks]

4.	(a)	(i)	Explanation of net worth figure	10 marks (5 + 5)	
		(ii)	Example of current asset	5 marks	
			Example of long term liability	5 marks	
		(iii)	Good financial position	5 marks	
			Explanation	10 marks (5 + 5)	35
	(b)	(i)	One type of insurance	5 marks	
		(ii)	Purpose of insurance	10 marks (5 + 5)	15

[50 marks]

5.	(a)	(i)	Calculation of farm output	10 marks	
		(ii)	Calculation of farm gross margin	6 marks	
		(iii)	Calculation of family farm income	10 marks	26
	(b)	Varia	able cost 1	6 marks	
		Varia	able cost 2	6 marks	12
	(c)	Expla	anation of depreciation	6 marks	
		Refe	rence to depreciation figure in table	6 marks	12
					[50 marks]
6.	(a)	(i)	Explanation of volatility	6 marks	
			Reference to volatility in graph	10 marks (5 + 5)	
		(ii)	Direct payment 1	5 marks	
			Direct payment 2	5 marks	
		(iii)	Explanation of direct payments from grap	h 12 marks (6 + 6)	38
	(b)	One	r eason for intervention in agri markets	12 marks (6 + 6)	12
					[50 marks]

Leaving Certificate Examination, 2015

AGRICULTURAL ECONOMICS - Ordinary Level

Part 1 (Answer 15 questions from 20. Eight marks per question)

	Expected Responses	Marks		
1.	State two key economic decisions concerning goods and services that are made within the market system.			
	 What to produce How to produce How much to produce For whom to produce 	2 x 4m		
2.	State one example from agriculture of each of the following:			
	(i) Factor of production: Land, Labour, Capital, Enterprise	4		
	(ii) Intermediate input: Purchased feed, fertiliser, fuel.	4		
3.	The income elasticity of demand (YED) for good X is -0.75. This means:			
	(i) That a 10% increase in income leads to a 7.5% increase decrease in quantity demanded.	4		
	(ii) That Good X is a normal (inferior)good.	4		
4.	(i) The share of Gross Domestic Product (GDP) accounted for by agriculture in advanced economies is:			
	☑ Less than 5%	4		
	(ii) Agriculture is an example of which type of industry:			
	Primary Secondary Primary	4		
5.	State two objectives of the Common Agricultural Policy (CAP) as outlined in the Treaty of Rome, 1957			
	 Increased agricultural productivity Fair standard of living for the agricultural population Stabilise markets Guarantee regular supplies Reasonable prices for consumers 			
6.	Complete the sentence below using three of four given words:			
	"A farmer who seeks to MAXIMISE profits will INCREASE output if the marginal	3 + 3 + 2		
	KEVENUE of the last unit produced is greater than its marginal cost."			

7.	(i) Inflation is mea	sured by an increase	e in: 🛛 VAT 🗹 C	PI ? GNP	4
	(ii) If the actual (nominal) market price of potatoes increases by 10% while inflation is 4%, then the real market price of potatoes has:				
	Risen Pallen Stayed unchanged				
8.	In a perfectly competitive industry like agriculture the individual farmer has (i)				
	total / some no control over the market price she receives for her produce.				
	Consequently, the d	emand curve for her	produce is (ii) vertio	al (horizontal)	4
	downward sloping.				
9.	State two national of and their families.	organisations that re	present the interest	ts of Irish farmers	
	Irish FarnIrish Crea	ners Association (IFA amery Milk Suppliers	.) Association (ICMSA))	2 x 4m
	Macra na	Feirme			
	Irish Catt	le and Sheep Farmer	's Association (ICSA)		
10.	State if each of the following taxes are direct or indirect.				
	(i) Income tax: Direct Indirect				3
	(ii) Value added tax: Direct / Indirect			3	
	(iii) Capital gains tax: Direct Indirect				2
11.	The given pie chart wheat, barley and o which crop. (A crop	shows the share of c pats in June 2014. St name can only be u	cereals land in Irelar ate which share X, N sed once.)	d devoted to and Z applies to	
		Share	Сгор		
		X (71%)	Barley		3
		Y (23%)	Wheat		3
		Z (6%)	Oats		2
12.	"A Bank overdraft is Explain this stateme	an example of a cuent.	ırrent liability."		
	Current liabilities are debts of the farm that are to be settled in cash within the tax year or the production cycle of the farm. A bank overdraft (the withdrawal of more than what is in a current account with permission from the bank) is a current liability as it has to be cleared and renewed every year.			8m (4 + 4)	

13.	State two services provided by Teagasc for Irish farmers.			
	 Agricultural production and environmental research Food research Advisory service to farmers Full-time courses at agricultural colleges On-going training for farmers Support for rural development activities 	2 x 4m		
14.	Complete the food supply chain for butter by naming the components A and B:			
	Purchased inputsFarmers' own resources A B + DistributionFinal consumer			
	A = (Agricultural) output B = Processing	4 + 4		
15.	5. If the euro (€) falls in value against the UK pound sterling (£), what would be			
	the expected outcome for each of the following?			
	(i) The price of Irish cheese in UK supermarkets:			
	Increase Decrease No change	4		
	(ii) Demand for English cheese in Irish supermarkets:			
	Increase Decrease No change	4		
16.	Identify which of the points A, B and C shown in the given diagram is technically efficient, inefficient or currently unattainable.			
	Point B is technically efficient	2		
	Point C is technically inefficient	3		
	Point A is technically unattainable	2		
17.	(i) The rate of economic growth in Ireland in 2014 was approximately:			
	1% 5% 10%	4		
	(ii) The average rate of unemployment in Ireland in 2014 was approximately:			
	11% 18% 20%	4		

18.	Ass imp	ume the supply of agricultura pact of an increase in demand	tate what the			
	(i)	Price of land:	Increase	Decrease	No change	4
	(ii)	Market quantity of land:	Increase	Decrease	No change	4
19.	(i)	Number of EU Member State	es as at 1 Januar	y 2015 :		
		24 28	32			4
	(ii)	uary 2015:				
		19 22	24			4
20.	Stat	te two principles of the agricu	ltural co-operati	ve moveme	nt:	
	 Voluntary membership Non-discriminatory membership Democratic / One-man-one-vote Limited dividends Education of members, officers, employees Co-operation between individual co-operatives 				2 x 4m	

PART 2 (200 marks)



(b)	The dem right or t • A In relation (i) S (ii) S (ii) S (iii) S	and curve for Good X or the supply to the left due to the following: an increase in consumer incomes decrease in input costs on to each event/development abov as: tate whether the demand curve or t tate whether the curve you mentior eft tate the effect on the market price a	curve for Good X may shift to the re, answer the following three he supply curve will shift n will shift to the right or to the and the market quantity.			
		An increase in consumer incomes	A decrease in input costs			
	(i)	Demand Curve will shift	Supply Curve will Shift	<u>16m</u> 2 x 2m		
	(ii)	To the Right	To the Right	2 x 2m		
	(iii)	Higher Market Price	Lower Market Price	2 x 2m		
		Higher Market Quantity	Higher Market Quantity	2 x 2m		
(c)	 (c) Explain the concept of substitute goods in consumption and give one example from the agri-food sector. Substitute goods in consumption: One of two (or more) goods that provide the same basic satisfaction of a want or need when consumed. An increase in the price of one substitute good causes an increase in demand for the other. A substitute-in-consumption has a positive cross elasticity of demand. Consuming one substitute good means that buyers have no need to consume another. 					
	Example	::				
	 The need for food can be satisfied by consuming beef or lamb. A change in the price of a substitute good in consumption causes a <u>change in demand</u> and a shift of the <u>demand curve</u>. An increase in the price of beef causes an increase in demand for lamb. 					
	• A de	ecrease in the price of beef causes a c	decrease in demand for lamb.			
				50 m		

Question 2	Marks
(a) According to the 2011 Census of Population for Ireland, over 1.7 million people or 38% of the national population live in rural areas.	
Outline two ways in which the family farm contributes to local communities in rural areas.	
 Maintenance of population numbers and age diversity (Keeps the community alive and offers the prospect of adults of the future in the community). Demand for local commercial services and employment (through their demand for farm supplies, groceries, petrol). Demand for public services that help to maintain a viable community (through their need for education, water supply, roads). Contribute to the social, cultural and religious life of communities (through their involvement in sports, church life, hobby clubs, and music groups). Management of the environment to the community's benefit (through keeping dwellings from falling into disrepair, keeping fields from turning into scrub and wilderness, maintaining a pleasing visual aspect in the countryside, maintenance of bio-diversity and other environmental bonefits through parmal farming activity and RERS type aregrammer). 	16m [2 x 8m (5 + 3)]
(b) The EU milk quota system which came into effect in 1984 was abolished in April 2015.	
(i) Describe the essential features of how the milk quota system worked at the farm level.	
 Milk output restricted to allocated quota on each farm Increased output required the farmer to buy or rent additional quota Possibility of farmers having to pay a super-levy if national milk output exceeded the national milk quota Many farmers not able to exploit economies of scale and therefore were operating with cost structures that were not optimal More dairy farms than would be the case in a free-market situation meant that milk collection costs for processors were higher than would otherwise be the case. 	12m (3 x 4m)

(ii)	Suggest three ways in which Irish dairy farming may be different in the future from what it was like under the quota system.	
	 Farmers free to expand their dairy herd size without restriction by quotas 	
	• Farmers more exposed to the ups and downs of market prices for milk products	22m (8 + 7 + 7)
	 Farmers should be able to exploit economies of scale which would allow them to expand production and bring down average production costs at the same time 	
	 Realistic opportunities for expansion on individual farms as global demand for milk products is expected to increase over the long term 	
	• Small dairy farms that are unable to expand are likely to exit the business as they no longer have a "guaranteed" production level	
	• Dairy farming is likely to become more scientific and technical and will require farmers to improve their skills and Teagasc to provide relevant training courses.	
		50m



(c)	Would you consider the prospects for Irish Agri-Food exports to be positive or negative over the next five years? Outline two reasons to support your answer.	
	The consensus is that the prospects for agri-food exports is positive.	2m
	Reasons for positive prospects:	
	 On-going trend in freer international trade in agri-food products e.g. prospect of a new agricultural trade deal between the EU and the USA 	2 x 8m (5+3)
	 Continued increase in global population and rising incomes in many less developed countries 	
	 Ireland's growing reputation for producing safe, quality-assured and environmentally friendly agricultural products 	
	 Rising demand for milk products especially and meat products from the growing middle class populations in countries like China and India 	
	 Changing weather patterns like more droughts have been proving difficult for food exporting countries like Australia and New Zealand. 	
<u> </u>		50m

Que	estion	4				Marks
The f	ollowin	g balance sheet re	presents John's	tillage farm as at 31 D	ecember 2014:	
	Lo	ong term liabilities	€ 125,000 € 75,000	Fixed assets	€ 500,000	
	N	et worth	€ 400,000	Current assets	€ 100,000	
	<u>Tc</u>	otal liabilities	<u>€ 600,000</u>	<u>Total assets</u>	<u>€ 600,000</u>	
(a)	(i)	Outline what the John's farm.	e net worth figu	re of €400,000 repres	ents in the case of	
		Net worth repres the farm. It is me assets (what is ov is a fundamental	sents the value of easured as the of wned) and total measure of the	of the farmer's equity of lifference in value bety liabilities (what is owe value of the farm.	or ownership in ween the total ed) of the farm. It	10m (5+5)
		On John's farm tl is owed is €400,0	he difference be 100. This repres	tween what is owned ents the value of the f	by John and what arm.	
	(ii) State one example of a current asset and one example of a long term liability that might apply in the case of John's farm.					
		Example of curre	ent asset			
		• Debto	ors			
		• Cash				5
		Tradir	ng livestock			
		• Feed,	fertiliser stocks			
		• Forag	e, saleable crop	stocks		
		Example of long	term liability			
		Bank t livesto	term loan for lai ock	nd / building / machine	ery / breeding	5
		• Other	borrowings not	payable within one ye	ear	

	(iii)	The debt to net worth ratio for John's farm is 0.5:1, i.e. 125,000+75,000 400,000 Is the farm in a good long term financial position? Explain your answer.					
		Answer: Yes (the farm in a good long term financial position).	5			
		Explanation:					
// \	(1)	Debt to net worth r or solvency of the fa (€200,000) to net w farm has borrowed less than 1.0. In Joh sold the farm and it pay off all the farm' creditors is half of w	atio is used to assess the long term financial position arm and is measured as the ratio of all debt yorth. The ratio measures the extent to which the from others. The guideline for solvency is a ratio of an's case the farm is solvent in the sense that if John is assets there would be more than enough money to is debts. The value of what is owed to the farm's what is owed to John as the owner of the farm.	10 (5 + 5)			
(b)	(i)	State one type of insurance that John may take out in the context of his farm business.					
	(ii)	Outline the purpos	e of this insurance.				
		Property	Cover against damage from natural disasters (lightening, floods) and human causes (fires, theft); livestock theft cover.	Insurance 5m			
		Motor vehicles	Legally required cover against theft, fire and other damage to cars, jeeps, and tractors.	10m (5 + 5)			
		Public liability	Cover against damage caused to the public by the farmer or his property (road accident caused by cattle, damage to visitors to the farm caused by farmer's negligence).				
		Employer's liability	Cover against damages to employees caused by farmer's negligence (unsafe working conditions, faulty machinery).				
				50 m			

Que	estion 5						Marks
The following is a set of farm accounts for Mary's dairy farm:							
				Milk		€120,000	
	Sales less p	urchases	:	Livestock		€30,000	
				Crops		€3,500	
	Variable co	sts				€30,000	
	Household	consumpt	ion of own produce	2		€4,000	
	Change in I	nventorie	S			+€5,000	
			Depreciation of n	nachinery and buil	dings	€4,500	
	Fixed costs:	:	Own machinery of	operating expenses	8	€2,000	
			Interest of farm lo	oan		€2,500	
			Other			€12,500	
(a)	Calculate	e the foll	owing, showing a	all your workings	in each case	:	
	(i) Farm o	output	(ii) Farm gro	ss margin	(iii) Family fa	arm income.	
	(i)	Calcula	tion of farm outp	ut			
		Sales le	ss purchases of:	Milk	€120	,000	
				Livestock	€ 30	,000	
				Crops	€ <u>3</u> €152	<u>,500</u>	
		-			£155	,500	
		Plus H	ousehold consum	iption of own pro	oduct € 4	,000	
	Change in inventories € 5,000			,000			
		= Farm	output		€162	2,500	10m
	(ii)	Calcula	tion of farm gross	s margin			
		Farm o	utput		€162	,500	
		Less V	ariable costs		€ 30	,000	
		= Farm	gross margin		€132	2,500	
	(iii)	Calcula	tion of family farm	n income			6m
		Farm gr	ross margin		€132	2,500	
		Less De M In O To	epreciation lachinery expense terest ther fixed costs otal fixed costs	€ 4,500 es € 2,000 € 2,500 <u>€12,500</u>	€ 21	,500	
		= Famil	y farm income		€111	.,000	10m

(b)	State two variable costs that may apply in the case of a typical dairy farm like Mary's.			
	Purchased (concentrate) feed or fodder			
	Purchased fertilisers and lime			
	Hired casual labour	12m		
	Veterinary expenses	(2 x 6m)		
	Machinery hire			
	Purchased energy (oil, diesel)			
(c)	Explain the term 'Depreciation' as it appears in Mary's accounts. Depreciation refers to the loss in the recorded value of fixed assets during the accounting period (usually one year). It is that part of the original cost of the purchased asset that was used up during the course of the year. In effect, depreciation is regarded as a cost because the charge represents the cost of replacing the assets brought about by the year's farming activity. The value for depreciation on Mary's farm is €4,500. This means that machinery and buildings fell in value by that amount. The figure appears low relative to the size of farm output and suggests that current machinery and buildings are getting old and may need to be replaced sooner rather than later.			
		50m		



	(iii)	"Direct payments are important for Irish farmers." Explain this statement with reference to the graph. From the graph it can be seen that DP account for the bulk of FFI on Irish farms. In 2008 and 2009, DP received by Irish farmers exceeded FFI meaning that the farmers on average made a loss from market-based farming activity. Even in one of the most profitable years ever in Irish farming, 2011, DP still represented over half of FFI on Irish farms. Without DP, the vast majority of Irish farms would be unable to derive a satisfactory income from farming.	12m (6 + 6)
(b)	Outline interve	one reason why the Irish Government and/or the EU is more inclined to ne in agricultural markets rather than in non-agricultural markets.	
	•	To stabilise prices (and thereby farm incomes). The natural tendency for agricultural prices to be volatile would inhibit a stable pattern of food production	12m (6 + 6)
	•	To ensure an adequate income for farmers through trade protection and/or income supports. Otherwise more farmers would exit farming and there would be economic and social problems in certain regions if farming was not supported	
	•	The EU in particular is anxious to preserve the model of the family farm as opposed to large scale factory farming. Farming as a way of life is important in the EU as are the environmental benefits of less intensive farming	
	•	Regional and national production methods and food products e.g. cheeses and meat products might be lost in a totally free market situation	
	•	Food safety concerns. Consumers require assurance that their food is safe to eat. For this reason there may be restrictions on imported products and supports as well as strict obligations on farmers to ensure safe food production.	
			50m

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