



**Coimisiún na Scrúduithe Stáit**  
**State Examinations Commission**

**Leaving Certificate 2017**

**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.

<b>Contents</b>	<b>Page</b>
Note regarding the marking scheme .....	3
Summary of mark allocations .....	4
Support Notes – Part 1.....	5
Support Notes – Part 2.....	8
Marcanna breise as ucht freagairt trí Ghaeilge .....	14

### **Note regarding the Marking Scheme**

The support notes presented are neither exclusive nor complete. Any Examiner unsure of the validity of the approach adopted by a particular candidate should contact his/her Advising Examiner.

Relevant points of information presented by candidates are marked and rewarded on their merits.

The level of 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.

Words, expressions, or phrases must be correctly used in context and not contradicted, and where there is evidence of incorrect use or contradictions the marks may not be awarded.

## Summary of Mark Allocations

### PART 1 (120 Marks)

Answer 15 questions from 20. 8 marks per question.

- |     |           |     |                   |
|-----|-----------|-----|-------------------|
| 1.  | 3 + 3 + 2 | 11. | 4 + 4             |
| 2.  | 4 + 4     | 12. | 4 + 4             |
| 3.  | 3 + 3 + 2 | 13. | 4 + 4             |
| 4.  | 4 + 4     | 14. | 3 + 3 + 2         |
| 5.  | 4 + 4     | 15. | 3 + 3 + 2         |
| 6.  | 4 + 4     | 16. | 4 + 4             |
| 7.  | 4 + 4     | 17. | 4 + 4             |
| 8.  | 3 + 3 + 2 | 18. | 4 + 4             |
| 9.  | 4 + 4     | 19. | 4 (2+2) + 4 (2+2) |
| 10. | 4 + 4     | 20. | 4 + 4 (2+2)       |

### PART 2 (200 Marks)

Answer 4 questions from 6. 50 marks per question.

- |    |                                   |    |                             |
|----|-----------------------------------|----|-----------------------------|
| 1. | (a) AP 10 (2 + 2 + 2 + 2 + 1 + 1) | 4. | (a)(i) 10 (5 + 5)           |
|    | (a) MP 10 (2 + 2 + 2 + 2 + 2)     |    | (a)(ii) 5                   |
|    | (b)(i) 10 (5 + 5)                 |    | (a)(iii) 5 + 10 (5 + 5)     |
|    | (b)(ii) 5 + 5 (3 + 2)             |    | (b)(i) 5 (3 + 2)            |
|    | (c) 5 (3 + 2) + 5 (3 + 2)         |    | (b)(ii) 5 + 10 (5 + 5)      |
| 2. | (a)(i) 3 @ 6m (3 + 3)             | 5. | (a)(i) 10 (5 + 5)           |
|    | (a)(ii) 12 (6 + 6)                |    | (a)(ii) 10 (5 + 5)          |
|    | (b)(i) 15 (5 + 5 + 5)             |    | (b) 10 (8 @ 1m, +2)         |
|    | (b)(ii) 5                         |    | (c)(i) 10 (5 + 5)           |
|    |                                   |    | (c)(ii) 5 + 5 (3 + 2)       |
| 3. | (a)(i) 8 (5 + 3)                  | 6. | (a) 10 (5 + 5) + 10 (5 + 5) |
|    | (a)(ii) 7 (4 + 3)                 |    | (b) 5 (3 + 2) + 5 (3 + 2)   |
|    | (b)(i) 5                          |    | (c) 10 (5 + 5)              |
|    | (b)(ii) 10 (5 + 5)                |    | (d) 10 (5 + 5)              |
|    | (c) 10 (5 + 5)                    |    |                             |
|    | (d) 10 (5 + 5)                    |    |                             |

## Support Notes

### PART 1 (120 Marks)

Answer 15 questions from 20. 8 marks per question.

PART 1		
1.	(i) abolished	3
	(ii) 2015	3
	(iii) increase	2
2.	(i) 11 months	4
	(ii) 2%	4
3.	Barley: C	3
	Oats: B	3
	Wheat: A	2
4.	(i) Any one of, for instance: <ul style="list-style-type: none"><li>• Income tax</li><li>• Capital acquisitions tax (gifts, inheritance)</li><li>• Capital gains tax</li><li>• Corporations profits tax</li><li>• Property tax</li><li>• Rates</li></ul>	4
	(ii) Any one of, for instance: <ul style="list-style-type: none"><li>• Value added tax</li><li>• Excise duty</li><li>• Motor tax</li><li>• Vehicle registration tax</li></ul>	4
5.	(i) Marginal	4
	(ii) Price	4
6.	(i) proportion	4
	(ii) falls	4

<b>PART 1</b>		
<b>7.</b>	<p>Any one of, for instance:</p> <ul style="list-style-type: none"> <li>• Trade barriers on Republic of Ireland (ROI) exports to the UK, including Northern Ireland</li> <li>• More competitive UK exports to Ireland from a weaker sterling against the euro</li> <li>• Less competitive Irish exports to UK from a weaker sterling against the euro</li> <li>• Disruption to cross-border processing of milk and meats between the ROI and Northern Ireland</li> <li>• Trade barriers on imports of materials from UK for use by the agri-food sector</li> </ul>	4 + 4
<b>8.</b>	(i) False	3
	(ii) True	3
	(iii) True	2
<b>9.</b>	(i) increase	4
	(ii) 1%	4
<b>10.</b>	(i) 41%	4
	(ii) 12%	4
	[Source: CSO]	
<b>11.</b>	<p>Any two of, for instance:</p> <ul style="list-style-type: none"> <li>• Cost of inputs</li> <li>• Level of technology</li> <li>• Extent of government regulation</li> <li>• Natural factors e.g. weather, pests, disease</li> <li>• Number of farmers producing the commodity</li> <li>• Level of taxation / subsidies from government</li> <li>• Changes in supply of a related good</li> </ul>	4 + 4
<b>12.</b>	(i) Consumer Price Index	4
	(ii) Family Farm Income	4
<b>13.</b>	(i) Straight-line method	4
	(ii) Diminishing balance method	4

<b>14.</b>	(i) True	3
	(ii) True	3
	(iii) False	2
<b>15.</b>	(i) Product	3
	(ii) Price	3
	(iii) Promotion	2
<b>16.</b>	<b>A:</b> Farmers' own resources	4
	<b>B:</b> Processing & Marketing / Distribution	4
<b>17.</b>	(i) 4%	4
	(ii) 8%	4
[Source: CSO]		
<b>18.</b>	(i) Any one of, for instance: <ul style="list-style-type: none"> <li>• Proposing EU legislation</li> <li>• Ensuring EU legislation and decisions are implemented by Member States</li> <li>• Upholding the EU treaties</li> <li>• Managing the day-to-day business of the EU.</li> </ul>	4
	(ii) Any one of, for instance: <ul style="list-style-type: none"> <li>• Approving the annual EU budget</li> <li>• Joint law-making powers with the Council of Ministers in many areas</li> <li>• Approving the composition of the European Commission</li> <li>• Proposing changes to EU treaties</li> </ul>	4
<b>19.</b>	Any two of, for instance: <ul style="list-style-type: none"> <li>• Most products supplied by farmers are bulky, so storage costs are expensive. Going straight to processor reduces costs.</li> <li>• Transport costs over long distances would be very expensive for the farmer.</li> <li>• Most agricultural products are of a perishable nature, so they must be processed quickly after harvesting. Timeliness is very important.</li> </ul>	4 (2 + 2) + 4 (2 + 2)
<b>20.</b>	(i) balance sheet	4
	(ii) Any one of, for instance: <ul style="list-style-type: none"> <li>• Long term bank loan</li> <li>• Debentures</li> <li>• Mortgage loan</li> <li>• Pension liabilities of farm employees</li> </ul>	4 (2 + 2)

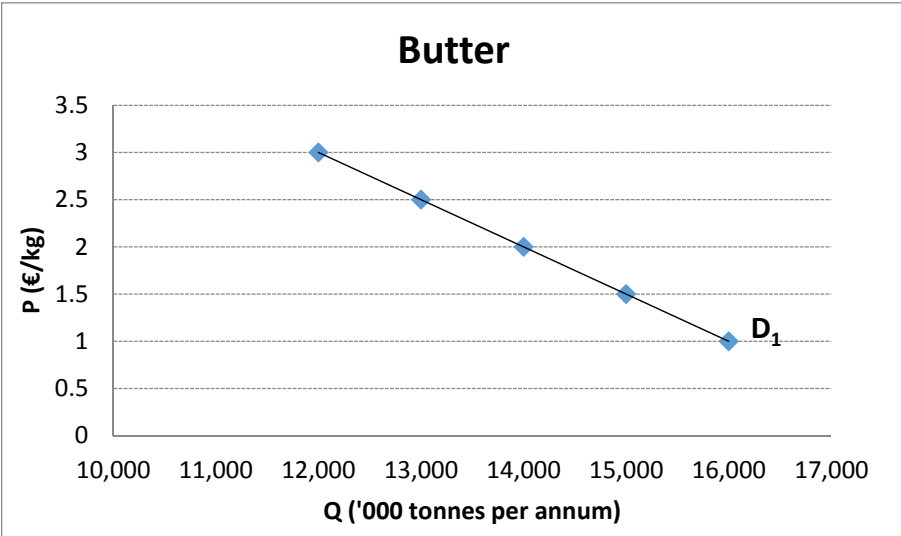
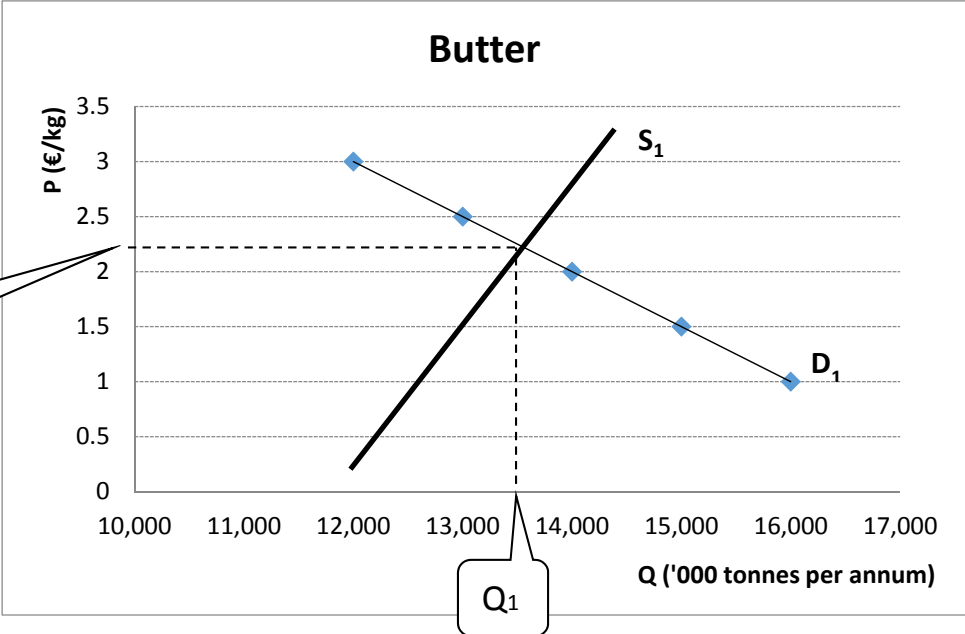
## PART 2 (200 Marks)

Answer 4 questions from 6. 50 marks per question

PART 2 - Question 1	Marks																					
<p>(a)</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%; text-align: center;">Average Product</th> <th style="width: 30%; text-align: center;">Marginal Product</th> <th style="width: 40%;"></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">12</td> <td style="text-align: center;">-</td> <td style="text-align: center;">AP</td> </tr> <tr> <td style="text-align: center;">15</td> <td style="text-align: center;">18</td> <td style="text-align: center;">2+2+2+2+1+1</td> </tr> <tr> <td style="text-align: center;">18</td> <td style="text-align: center;">24</td> <td></td> </tr> <tr> <td style="text-align: center;">16</td> <td style="text-align: center;">10</td> <td style="text-align: center;">MP</td> </tr> <tr> <td style="text-align: center;">14</td> <td style="text-align: center;">6</td> <td style="text-align: center;">2+2+2+2+2</td> </tr> <tr> <td style="text-align: center;">12</td> <td style="text-align: center;">2</td> <td></td> </tr> </tbody> </table>	Average Product	Marginal Product		12	-	AP	15	18	2+2+2+2+1+1	18	24		16	10	MP	14	6	2+2+2+2+2	12	2		(20)
Average Product	Marginal Product																					
12	-	AP																				
15	18	2+2+2+2+1+1																				
18	24																					
16	10	MP																				
14	6	2+2+2+2+2																				
12	2																					
<p>(b)(i) Beyond a certain level of input use, marginal product falls with each additional extra unit of the input used.</p>	10 (5 + 5)																					
<p>(b)(ii) Once input use goes beyond 3 units i.e. 300 kg/ha. Explanation: Marginal product rises from using the first three units of input. But with the fourth and subsequent additional units of input the marginal product falls. The marginal product of the third unit is 24 tonnes/ha but the marginal product of the fourth unit is only 10 tonnes/ha.</p>	5  5 (3 + 2)																					
<p>(c) Any two of, for instance:</p> <ul style="list-style-type: none"> <li>• Better machinery for planting, spraying, harvesting</li> <li>• Better husbandry practices / education</li> <li>• Higher yielding varieties available on the market</li> <li>• More effective fertiliser and crop protection products.</li> </ul>	5 (3 + 2) + 5 (3 + 2)																					



PART 2 - Question 2	Marks
<p>(a)(i) Any three of:</p> <ul style="list-style-type: none"> <li>• To increase agricultural productivity by promoting technical progress and ensuring the optimum use of the factors of production, in particular, labour;</li> <li>• To ensure a fair standard of living for farmers;</li> <li>• To stabilise markets;</li> <li>• To assure the availability of supplies;</li> <li>• To ensure reasonable prices for consumers.</li> </ul>	<p>3 @ 6m (3 + 3)</p>
<p>(a)(ii)</p> <ul style="list-style-type: none"> <li>• By providing a guaranteed payment to farmers each year the Basic Payment Scheme supports the farmer's income directly which is one of the objectives.</li> <li>• The scheme encourages farmers to stay farming thus guaranteeing food production and a relatively steady flow of farm output from one year to the next.</li> <li>• The scheme pays farmers directly and the consumer does not have to face high prices to support farm incomes.</li> <li>• The scheme encourages farmers to stay farming and thus to adopt the latest improvements in farming methods.</li> </ul>	<p>12 (6 + 6)</p>
<p>(b)(i) <b>Cross Compliance</b> means that the farmer must follow a variety of regulations on the environment, public health, animal health, plant health, animal welfare and land maintenance. Farm payment (Basic Payment Scheme) can be reduced if the farmer has failed to follow the rules. Rules set out what the farmer must and must not do. Cross Compliance aims at ensuring the safe production of food, the welfare of animals, the sustainable use of land to combat environmental damage previously caused by intensive farming, the maintenance of natural resources and limiting climate change.</p> <p>(b)(ii) <b>Examples</b> (any one of, for instance):</p> <ul style="list-style-type: none"> <li>• Protection of water against pollution</li> <li>• Conservation of wild birds</li> <li>• Conservation of natural habitats</li> <li>• Managing the spreading of fertilisers</li> <li>• Food and Feed hygiene</li> <li>• Identification and registration of pigs, sheep and goats</li> <li>• Welfare of farm animals</li> <li>• Keeping records of fertilisers used and livestock numbers.</li> </ul>	<p>15 (5 + 5 + 5)</p> <p>5</p>

PART 2 - Question 3	Marks
<p>(a)(i) Demand curve for butter:</p> 	<p>(8)</p> <p>Curve: 5 (1 per point)</p> <p>Labels: 3 (1 per axis, 1 for curve)</p>
<p>(a)(ii) The higher the price of butter, the less butter would be demanded by consumers, all other things being equal. More would be bought only at a lower price.</p>	<p>7 (4 + 3)</p>
<p>(b)(i),(ii)</p> 	<p>(15)</p> <p>(b)(i) 5</p> <p>(b)(ii) P<sub>1</sub>: 5 (b)(ii) Q<sub>1</sub>: 5</p>
<p>(c) Any two of, for instance:</p> <ul style="list-style-type: none"> <li>• Increase in population / number of consumers</li> <li>• Increase in consumers' incomes</li> <li>• Increased preference for consumption of butter</li> <li>• Increase in the price of substitute goods e.g. spreads</li> <li>• Decrease in the price of complementary goods e.g. bread, rolls, etc.</li> </ul>	<p>5 + 5</p>
<p>(d) The market price and quantity will both rise to a new equilibrium whereby supply equals the new demand.</p>	<p>5 + 5</p>



PART 2 - Question 5	Marks
<p>(a)(i) YED is a measure of the responsiveness of quantity demanded of a good to changes in the level of income of consumers of that good.</p> <p>If the number for YED is greater than one, we deem demand to be highly responsive i.e. elastic, to changes in income.</p> <p>If the number for YED is less than one, we deem demand to be relatively unresponsive i.e. inelastic, to changes in income.</p>	<p>10 (5 + 5)</p>
<p>(a)(ii) Any one of, for instance:</p> <ul style="list-style-type: none"> <li>• The proportion of income spent on the good</li> <li>• How the good is perceived by consumers i.e. inferior, basic or luxury</li> <li>• Availability of substitute goods</li> </ul>	<p>10 (5 + 5)</p>
<p>(b)</p> $YED = \frac{51-49}{27000-23000} \times \frac{23000+27000}{49+51} = \frac{2}{4000} \times \frac{50000}{100} = 0.25$	<p>10 (8 @ 1m +2)</p>
<p>(c)(i) A 10% increase (decrease) in income would lead to 8% decrease (increase) in quantity demanded.</p>	<p>10 (5 + 5)</p>
<p>(c)(ii) It is an inferior good.</p> <p>Explanation: it has a negative YED. As incomes rise, consumers tend to move away from these goods in favour of higher quality / value goods that are now more affordable.</p>	<p>5 5 (3 + 2)</p>

PART 2 - Question 6	Marks
<p>(a)</p> <p><u>Output:</u> Decline in output volume up to 2009 and increase since then with the exception of a slight decrease in 2012. Output in 2015 was about 10% higher in volume terms compared to 2005.</p> <p><u>Terms of trade:</u> Has been fluctuating a lot with big declines in 2008 and 2009. Strong recovery until 2013 after which terms of trade have declined. Terms of trade in 2015 were slightly lower than in 2005.</p>	<p>10 (5 + 5)</p> <p>10 (5 + 5)</p>
<p>(b) Terms of trade describe the price environment facing farmers who sell their produce at certain prices and buy their inputs at certain prices. If terms of trade are rising or improving, this is considered to be beneficial for farmers' incomes as it represents a loosening of the cost-price squeeze on them.</p> <p>If terms of trade are falling or disimproving, this is considered to be harmful to farmers' incomes as it represents a tightening of the cost-price squeeze on them.</p> <p>Terms of trade are measured by the ratio of output price (as an index number) received by farmers to input prices (as an index number) paid by farmers.</p>	<p>5 (3 + 2)</p> <p>5 (3 + 2)</p>
<p>(c)</p> <p>Output prices may have increased at a slower rate than input prices, or</p> <p>Output prices may have decreased at a faster rate than input prices, or</p> <p>Output prices may have decreased while input prices remained unchanged, or</p> <p>Output prices may have remained unchanged while input prices increased.</p>	<p>10 (5 + 5)</p>
<p>(d) Farmers can limit the effect of weakening Terms of Trade by ensuring that they receive the highest possible product price and pay the lowest possible input price.</p> <p>Farmer-controlled businesses that expand the farmer's role in the value chain is one way to do this.</p> <p>Technical efficiency and the use of biological farming methods are also proven methods of saving on inputs.</p> <p>The combining of crop and livestock production may also decrease a farmer's total risk.</p> <p>Farmers must plan ahead to combat weakening Terms of Trade. Those who farm exactly the same way as they farmed last year will soon find that their income is dwindling.</p>	<p>10 (5 + 5)</p>

## Marcanna Breise as ucht freagairt trí Ghaeilge

Léiríonn an tábla thíos an méid marcanna breise ba chóir a bhronnadh ar iarrthóirí a ghnóthaíonn níos mó ná 75% d'iomlán na marcanna.

N.B. Ba chóir marcanna de réir an ghnáthráta a bhronnadh ar iarrthóirí nach ngnóthaíonn níos mó ná 75% d'iomlán na marcanna don scrúdú. Ba chóir freisin an marc bónais sin a **shlánú síos**.

### Tábla 320 @ 10%

Bain úsáid as an tábla seo i gcás na n-ábhar a bhfuil 320 marc san iomlán ag gabháil leo agus inarb é 10% gnáthráta an bhónais.

Bain úsáid as an ngnáthráta i gcás 240 marc agus faoina bhun sin. Os cionn an mharc sin, féach an tábla thíos.

Bunmharc	Marc Bónais
241 - 243	23
244 - 246	22
247 - 250	21
251 - 253	20
254 - 256	19
257 - 260	18
261 - 263	17
264 - 266	16
267 - 270	15
271 - 273	14
274 - 276	13
277 - 280	12

Bunmharc	Marc Bónais
281 - 283	11
284 - 286	10
287 - 290	9
291 - 293	8
294 - 296	7
297 - 300	6
301 - 303	5
304 - 306	4
307 - 310	3
311 - 313	2
314 - 316	1
317 - 320	0

**Blank Page**

