



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

**Leaving Certificate 2017**

**Marking Scheme**

**Agricultural Economics**

**Higher 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 .....	17

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

### PART 2 (200 Marks)

Answer 4 questions from 6. 50 marks per question.

- |    |         |                                      |    |          |                                      |
|----|---------|--------------------------------------|----|----------|--------------------------------------|
| 1. | (a)     | $5(3 + 2)$                           | 4. | (a)(i)   | $3(2 + 1)$                           |
|    | (b)     | $3 @ 6m(4 + 2)$                      |    | (a)(ii)  | $3(2 + 1)$                           |
|    | (c)(i)  | $8(4 + 4)$                           |    | (a)(iii) | $3(2 + 1)$                           |
|    | (c)(ii) | $7(3 + 2 + 2)$                       |    | (b)      | $4 @ 5m(3 + 2)$                      |
|    | (d)     | $3 @ 4m(3 + 1)$                      |    | (c)(i)   | $6(3 + 3)$                           |
|    |         |                                      |    | (c)(ii)  | $15(5 + 5 + 5)$                      |
| 2. | (a)     | $2 @ 5m(3 + 2)$                      | 5. | (a)(i)   | $10(5 + 2 + 2 + 1)$                  |
|    | (b)     | $4 @ 6m(3 + 3)$                      |    | (a)(ii)  | $5(3 + 2) + 5$                       |
|    | (c)     | $1 @ 6m(3 + 3) +$<br>$2 @ 5m(3 + 2)$ |    | (b)(i)   | $2 @ 4m(2 + 2)$                      |
|    |         |                                      |    | (b)(ii)  | $10(10 @ 1m)$                        |
| 3. | (a)     | $10(3 + 3 + 2 + 2)$                  |    | (c)(i)   | $6(3 + 3) + 4(2 + 2)$                |
|    | (b)     | $2 @ 5m(3 + 2)$                      |    | (c)(ii)  | $2$                                  |
|    | (c)(i)  | $5(2 + 2 + 1) + 5(3 + 2)$            |    |          |                                      |
|    | (c)(ii) | $5(3 + 1 + 1) + 5(3 + 2)$            | 6. | (a)      | $30[(7 @ 3m) + (2 @ 2m) + 5(3 + 2)]$ |
|    | (d)     | $10(2 + 3 + 2 + 3)$                  |    | (b)(i)   | $5(3 + 2)$                           |
|    |         |                                      |    | (b)(ii)  | $3 @ 5m(3 + 2)$                      |

## Support Notes

### PART 1 (120 Marks)

Answer 15 questions from 20. 8 marks per question.

PART 1											
<b>1.</b>	<p><b>Definition:</b> Capital is any man-made resource used in the production of goods or services.</p> <p><b>Examples</b> (any two of, for instance): machinery, buildings, equipment, livestock, feed.</p>	4 (2 + 2)									
	<p><b>(ii)</b> €19bn.</p>	4									
<b>3.</b>	<p><b>(i)</b> Possible decrease.</p> <p><b>(ii)</b> Definite decrease.</p>	4 4									
<b>4.</b>	<p>Capital Gains Tax (CGT) applies to the sale of assets (e.g. land); it is paid on the difference between purchase and sale price.</p> <p>Capital Acquisition Tax (CAT) applies to gifts and inheritance.</p>	4 + 4									
<b>5.</b>	<p><b>(i)</b> Prices are collected for a representative basket of retail and service items. A selected base period is set at 100. Subsequent price changes are combined using a specified weighting for each item. Changes are shown in relation to the base period value.</p> <p><b>(ii)</b> 0.0% [Source: CSO]</p>	4 (2 + 2)									
<b>6.</b>	<p>Any two of, for instance:</p> <ul style="list-style-type: none"> <li>• To provide data for research.</li> <li>• To assess the financial situation of Irish farming.</li> <li>• To inform agricultural policy.</li> <li>• To provide a basis for farm advice and benchmarking.</li> <li>• To meet commitments under EU accounting requirements.</li> <li>• To feed into national economic data.</li> </ul>	4 + 4									
<b>7.</b>	<p>Production of an agricultural product refers to the total amount of the product produced/harvested in a given time period.</p> <p>On the other hand, output refers to the total amount of the product sold off-farm. Output does not include any part of the produce used for further production.</p>	4 (2 + 2) 4 (2 + 2)									
<b>8.</b>	<table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 5px;"> <thead> <tr style="background-color: #d3d3d3;"> <th style="padding: 5px;">Category of Irish Farming</th> <th style="padding: 5px;">Dairy farmers</th> <th style="padding: 5px;">Sheep farmers</th> <th style="padding: 5px;">Tillage farmers</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;"><b>Average FFI</b></td> <td style="padding: 5px;">€63,020</td> <td style="padding: 5px;">€15,791</td> <td style="padding: 5px;">€33,731</td> </tr> </tbody> </table> <p>[Source: CSO]</p>	Category of Irish Farming	Dairy farmers	Sheep farmers	Tillage farmers	<b>Average FFI</b>	€63,020	€15,791	€33,731	3 + 3 + 2	
Category of Irish Farming	Dairy farmers	Sheep farmers	Tillage farmers								
<b>Average FFI</b>	€63,020	€15,791	€33,731								

PART 1		
9.	<p>Any two of, for instance:</p> <ul style="list-style-type: none"> <li>• Failure of UK to negotiate a free trade agreement with the EU could result in the imposition of tariffs and other trade barriers on Irish agri-food exports to the UK.</li> <li>• Change in rate of exchange. A decrease in value of the UK pound can adversely affect the competitiveness of Irish agri-food exports to the UK.</li> <li>• If the UK were to establish new free trade deals with agri-food exporting countries outside of the EU post-Brexit, Irish agri-food exports will face new competitors in that market.</li> <li>• Changes in UK government policy (e.g. promotion of UK made products, financial support for UK farmers) would make UK farmers more competitive, leading to reduced demand for Irish agri-food exports.</li> <li>• Need to comply with UK health and safety standards as well as those of the EU – there may be differences between them.</li> </ul>	4 + 4
10.	<p><b>Workings:</b> Price decrease = 10%</p> <p style="padding-left: 40px;">% increase in number sold = <math>-1.5 \times -10 = 15</math></p> <p style="padding-left: 40px;">or equivalent workings.</p> <p><b>Answer:</b> 15%</p>	<p>4</p> <p>(2 + 2)</p> <p>4</p>
11.	<p>Any two of, for instance:</p> <ul style="list-style-type: none"> <li>• There are many sellers in the market who are price takers.</li> <li>• There are many buyers in the market.</li> <li>• Products produced are undifferentiated/homogenous.</li> <li>• There is freedom of entry and exit from the market (no barriers to entry or exit).</li> <li>• Buyers and sellers have ready access to all available information on prices and competitors (i.e. perfect information).</li> <li>• There is perfect mobility in the factors of production.</li> <li>• There are no externalities.</li> </ul>	4 + 4
12.	Over time, farmers use more purchased inputs, e.g. contractors and feedstuffs (pre-farm gate), and their output is subjected to more elaborate and value-added processing (post-farm gate).	8 (4 + 4)
13.	<p>Any one of, for instance:</p> <ul style="list-style-type: none"> <li>• Land is only one of the factors that determine the size of a business, the others being labour, capital, and enterprise.</li> <li>• Land area does not take into account the quality of the land.</li> </ul>	8 (4 + 4)

PART 1		
14.	Any two: (i) A full credit history (ii) A full set of farm accounts (iii) Asset and liability profile (iv) A cashflow statement (v) A business plan (vi) A partial budget.	4 + 4
15.	(i) A change in the price level created by an increase in aggregate demand. (ii) A change in the price level created by an increase in the price of inputs.	4 4
16.	Any one of, for instance: <ul style="list-style-type: none"> <li>• More farmers moving into long-term leases on land due to the tax advantages on offer, thus taking the focus off land purchases.</li> <li>• The lack of demand amongst farmers for large land purchases of over 50 hectares.</li> <li>• A lack of demand for land in certain areas, especially in Connaught/Ulster.</li> <li>• Low profitability of farms due to low prices for agri products.</li> </ul>	8 (4 + 4)
17.	Third party insurance covers damage caused to other people and their property, but not damage done to the insured or their property. Comprehensive insurance covers damages incurred by all parties and their property.	4 + 4
18.	Any three: <ul style="list-style-type: none"> <li>• The structure of farming – a large number of relatively small units.</li> <li>• The geographical dispersal of farming over a wide area.</li> <li>• The nature of supply which tends to vary seasonally and from year to year.</li> <li>• The bulky and perishable nature of agricultural products.</li> </ul>	3 + 3 + 2
19.	When jobs are available in other sectors, labour mobility is increased and farmers can either leave the industry or seek off-farm employment in response to a price-cost squeeze. This improves the ability of those remaining within the industry to increase output or supplement their farm income.	8 (4 + 4)
20.	An <b>EU Regulation</b> is a legislative act of the European Union that becomes immediately enforceable as law in all member states simultaneously. An <b>EU Directive</b> is a legislative act of the European Union that requires member states to achieve a certain outcome, without specifying how the objective is to be achieved. It is up to each member state to transpose directives into national law.	4 4

## PART 2 (200 Marks)

Answer 4 questions from 6. 50 marks per question

PART 2 - Question 1	
<p>(a)</p> <p><b>Answer:</b> An increase in demand.</p> <p><b>Reason:</b> At each price level, the quantity demanded is greater on Demand 2 than it was on Demand 1.</p>	<p>3</p> <p>2</p>
<p>(b) Any three of, for instance:</p> <ul style="list-style-type: none"> <li>• An increase in population, creating more potential consumers.</li> <li>• Increased tastes / appeal in favour of the goods as a result of factors such as advertising.</li> <li>• Increase in price of substitute good(s) will encourage consumers to substitute away from that good and consume more of the good in question.</li> <li>• Increase in demand or decrease in price of complementary good(s) will result in increased demand for the good in question.</li> <li>• Expectations of higher price in the future will encourage more consumers to purchase at current price to avoid future losses.</li> <li>• For some goods, a change in weather or other environmental factors, such as good weather or holiday seasons, can create increased demand for a good.</li> <li>• Improvement in the quality of a good leads to increased demand for that good.</li> </ul>	<p>3 @ 6m</p> <p>(4 + 2)</p>
<p>(c)(i)</p> $YED = \frac{\Delta Q}{\Delta Y} \times \frac{Y_1 + Y_2}{Q_1 + Q_2}$ $YED = \frac{100}{1,000} \times \frac{21,000}{700} = 3$	<p>4 + 4</p>
<p>(c)(ii)</p> <p>The good is a luxury good, as the quantity demanded is strongly responsive to a change in income. For every 1% change in consumer average income, the quantity demanded of the good changes by 3%.</p>	<p>3 + 2 + 2</p>
<p>(d)</p> <p>W-X: At low levels of output, it is easy for farmers to switch from other forms of farming into producing this product (i.e. supply is fairly elastic – W-X).</p> <p>X-Y: As output increases further, fewer farmers can readily switch from other forms of farming and into producing this product (i.e. supply becomes more inelastic).</p> <p>Y-Z: Eventually, it is no longer possible to produce a greater level of output, given the available resources (i.e. supply is perfectly inelastic).</p>	<p>3 @ 4m</p> <p>(3 + 1)</p>

PART 2 – Question 2	
<p>(a)</p> <p><b>MacSharry Reform:</b> focused on the reduction in administered support prices and the introduction of coupled direct payments, dependent on levels of output, and a set of other accompanying measures (e.g. early retirement, set-aside, afforestation).</p> <p><b>Agenda 2000:</b> Focus of reforms was to put greater emphasis on environmental issues and rural development. The reforms saw the division of CAP into two pillars. The first pillar continued the role of production support, while the second pillar of focused on rural development.</p>	<p>5 (3 + 2)</p> <p>5 (3 + 2)</p>
<p>(b)</p> <p><b>In Support</b> (any two of, for instance):</p> <ul style="list-style-type: none"> <li>• Protection of rural communities: rural communities are highly dependent on agriculture. Farmers’ incomes are only about half the EU average. Aging rural population and depopulation are a distinct threat in many EU rural areas. Rural development support under CAP help combat these issues.</li> <li>• Agricultural income is often unstable because of price/income volatility due to changes in price/weather and income inelasticity of demand. Income support under CAP helps combat these issues.</li> <li>• Food quality and variety: through maintaining food standards and diversity within Europe, CAP helps to provide benefits for consumers. Thus, CAP helps to protect against the externalities that arise from the importation of harmful goods.</li> <li>• Protects the environment: agriculture controls the majority of the land mass in Europe and as such plays a vital role in protecting habitats, bio-diversity, and providing a clean environment for others to enjoy. Through regulations and payments contingent on environmental criteria, CAP helps to protect and promote the rural environment.</li> <li>• Food security: most nations do not want to be reliant on outside countries for the supply of such basic needs as food. CAP helps to ensure European farmers can satisfy much of the food needs of Europe.</li> </ul>	<p>2 @ 6m (3 + 3)</p>

<p><b>(b) Against</b> (any two of, for instance):</p> <ul style="list-style-type: none"> <li>• Cost to tax payers: CAP absorbs a large (approx. 40%) of the EU budget, which needs to be financed by nation states and their respective tax payers.</li> <li>• Unfair distribution of benefits: many of the benefits from CAP go to larger farmers, who are in less need of such supports.</li> <li>• CAP distorts markets: through the subsidisation of farmers and the food they produce, CAP distorts market supply and demand, which can result in increased prices for consumers.</li> <li>• Impact on less developed countries: through the subsidisation of European farmers and the protection of European markets from imports, CAP limits the ability of farmers in less developed countries to compete effectively.</li> <li>• Limitations on potential industry performance: without CAP, larger, more efficient farmers would replace smaller farmers, thereby improving the performance of the sector.</li> <li>• Bureaucracy: CAP imposes a great deal of red tape and other bureaucratic obligations on the agricultural industry. This can act to reduce flexibility and performance.</li> </ul>	<p>2 @ 6m (3 + 3)</p>
<p>(c)</p> <p><b>Basic Payment Scheme</b> This payment is given to active farmers with eligible land that is used for an agricultural activity. Non-agricultural land, e.g. a golf course, is not eligible. The BPS accounts for approximately 70% of direct payments.</p> <p><b>Greening Payment Scheme</b> This payment is for agricultural practices beneficial to the climate and the environment. All farmers in the Basic Payment Scheme must also implement the greening provisions. Approximately 30% of the direct payment is for Greening.</p> <p><b>Young Farmers' Scheme</b> This is a payment for farmers under 40 who have successfully completed a recognised course of education in agriculture. It is an additional payment to the BPS and Greening and an encouragement for transferring of farms from parent to son/daughter. The payment is available for a maximum of 5 years.</p> <p><b>Protein Aid Scheme</b> Payment for growing of specific protein crops only – beans, peas and lupins. A total of €3m of the Basic Payment Ceiling has been set aside in Ireland for this.</p>	<p>6m (3 + 3)</p> <p>5m (3 + 2)</p> <p>5m (3 + 2)</p>

**PART 2 - Question 3**

(a)

<b>Balance Sheet as at 31 December 2016</b>			
	€	€	€
<b>Fixed Assets:</b>			
Land and Buildings		680,000	
Machinery		250,000	
Breeding Stock		190,000	<b>1,120,000</b>
<b>Current Assets:</b>			
Trading Livestock	100,000		
Cash	45,000		
Debtors	55,000	<b>200,000</b>	
<b>Less Current Liabilities:</b>			
Bank Overdraft	38,000		
Creditors	62,000	<b>100,000</b>	
Working Capital			100,000
			<b>1,220,000</b>
<b>Financed by:</b>			
Long-term Loans		620,000	
Capital (Net Worth)		<b>600,000</b>	<b>1,220,000</b>

3

3

2

2

(b)

**Liquidity** is the ability of the farm to raise enough money to meet its day-to-day bills as they fall due, i.e. the capacity of the farm to meet its short-term liabilities from its current assets.

5

(3 + 2)

**Solvency** is the ability of the farm to meet its long-term liabilities and to accomplish long-term financial growth. A farm is solvent if its total assets are greater than its total liabilities (current and long-term).

5

(3 + 2)

(c)(i)

Acid Test Liquidity ratio = liquid assets/current liabilities  
 = (45,000 + 55,000) / (38,000 + 62,000) = 100,000 / 100,000 = 1

5

(2+2+1)

Interpretation: Farm has just enough liquid assets to convert quickly into cash if short-term creditors were to press for payment, as the liquidity ratio is equal to 1. This is not a good position because, if that happened, he would have no liquid assets left to run his farm.

5

(3+2)

(c)(ii)

Debt to net worth(capital) = Liabilities/Net Worth  
 = (38,000 + 62,000 + 620,000) / 600,000 = 720,000 / 600,000 = 1.2

5

(3+1+1)

Interpretation: Farm is insolvent – the sale of its assets would not cover its debt obligations, as the debt to net worth ratio is greater than 1. Thus, in the long-run this farm can be forced into bankruptcy.

5

(3+2)

**PART 2 - Question 3**

(d)

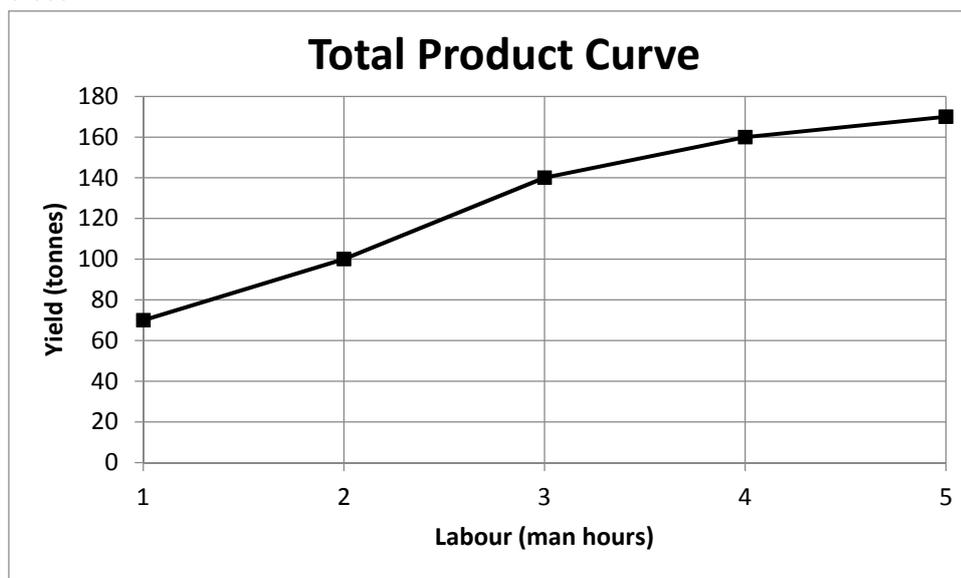
- The farmer should consider reducing the level of debt, perhaps through discussions with their lender on debt restructuring.
- The farmer could also consider raising additional revenue that can be used to repay some of the long-term loans – for example, some machinery could be sold and contractors used instead.
- Measures to increase farm output or secure off-farm income could also be considered.
- The farmer should use capital and cash-flow budgeting and/or draw up a business plan to evaluate the feasibility and profitability of any future plans to increase income. The farm can continue to operate in the short run, but may be vulnerable to a decrease in income in the long-run. This is especially true when beef farmers have greater exposure to world prices.
- The farmer can also consider reducing liabilities through measures such as using contractors and/or sale and leaseback instead of owning machinery themselves (i.e. reduce machinery loans).
- The farmer should be putting plans in place to ensure enough revenue is generated to meet long-term liability. To ensure this can be done, the farmer should use partial budgets to ascertain if changes in the business are possible to produce increased income, e.g. increasing output through investment.

10  
(2+3+2+3)

<b>PART 2 - Question 4</b>	
<b>(a)(i)</b> The total value of goods produced and sold by the agricultural sector during the year, valued at producer (farm gate) prices.	3 (2 + 1)
<b>(a)(ii)</b> The total value of subsidies (money or allowance granted by the State) paid to farmers, less taxes on production.	3 (2 + 1)
<b>(a)(iii)</b> A measure of operating cash-flow. It is income before deductions for interest, annuities, depreciation, and rent.	3 (2 + 1)
<b>(b) (Trends in operating surplus)</b> Between 2005 and 2007 operating surplus was relatively stable. Despite rises in output at producer prices during this time, rising intermediate consumption and a decrease in net subsidies in 2005-6 kept operating surplus stable. Between 2007 and 2009 operating surplus fell sharply as the domestic and many overseas markets went into economic decline. The resulting decrease in the value of output in 2008/9, combined with the rise in intermediate consumption in 2007/8, were the main causes of this decline. Between 2009 and 2011 operating surplus recovered on the back of the rising value of output. This was helped by exchange rate movements. The recovery in operating surplus was also helped by growth in intermediate consumption that was much less than output values. This was helped by lower oil prices. Since 2011, operating surplus has been relatively stable, despite further increases in the value of output and a widening gap between output values and intermediate consumption. This is explained by reduced net subsidies as a result of CAP reforms.	5 (3 + 2)  5 (3 + 2)  5 (3 + 2)  5 (3 + 2)
<b>(c) Any one of A, B or C</b> <b>A. (i)</b> Any two of, for instance: forage plants, seed, replacement livestock. <b>A. (ii)</b> Both the demand and supply of these resources arise from within the farming sector. Thus, if there is a decrease in the output prices of agricultural output, we can expect to see a decrease in both the demand and supply of these resources. Thus, changes in the price of these inputs can act to compensate for the fall in output prices.	3 + 3  5 + 5 + 5
<b>or</b> <b>B. (i)</b> Any two of, for instance: fertilizers, contract work, machinery, veterinary services. <b>B. (ii)</b> While the demand for these inputs is determined primarily by conditions in the farming sector, their supply is driven by conditions outside of farming. Therefore, where the price of agricultural output declines, we can expect the subsequent decline in demand for these resources to reduce their price. However, this will not affect their supply in the short term.	
<b>or</b> <b>C. (i)</b> Any two of, for instance: energy, lubricants, building materials. <b>C. (ii)</b> Both the demand and supply of these inputs are primarily determined by conditions outside of farming. Thus, we can expect little reaction in the price of these inputs as a result of a change in the price of agricultural output.	

**PART 2 - Question 5**

(a)(i)



10  
(5+2+2+1)

(a)(ii)

**Diminishing Returns:** as more of a variable factor (e.g. labour) is used in combination with a fixed factor (e.g. capital), a point is eventually reached where the additional output/product produced by additional units of the variable input starts to reduce/diminish. This arises due to limitations in the amount of the fixed factor available in the business.

In the above graph, diminishing returns sets in beyond 3 man hours of labour, as this is where the increase in output being created by each additional man hour worked starts to diminish and the curve becomes less steep.

5  
(3 + 2)

5

(b)(i)

Marginal revenue product (MRP) is the market value of one additional unit of an input.

The MRP is calculated by multiplying together the additional output/product created by employing an additional unit of input (i.e. marginal physical product MP) and the increase in total revenue created by each addition unit of output (marginal revenue or price).

$$MRP = MP \times MR(P)$$

4  
(2 + 2)

4  
(2 + 2)

(b)(ii)

Labour	Yield	Marginal Product (MP)	Output price	Total Revenue (TR)	Marginal Revenue Product (MRP)
1	70	-	100	7,000	-
2	100	30	100	10,000	3,000
3	140	40	100	14,000	4,000
4	160	20	100	16,000	2,000
5	170	10	100	17,000	1,000

10  
(10 @ 1m)

PART 2 - Question 5	
<p>(c)(i)</p> <p>Technical efficiency is the effectiveness with which a given set of inputs is used to produce an output. A firm is said to be technically efficient if a firm is producing the maximum output from a given quantity of inputs, such as labour, capital and technology. No further output is possible from the given resources. Thus, all points on a total product curve (production possibility frontier) are technically efficient, while all points beneath the product curve are technically inefficient (i.e. resources are not being fully utilised).</p> <p>Economic efficiency occurs when the production cost of an output is as low as possible. It is therefore the optimum level of input use within the technically efficient region. This occurs where the marginal revenue product generated by an additional unit of input is equal to its marginal cost.</p>	<p>6 (3 + 3)</p> <p>4 (2 + 2)</p>
<p>(c)(ii)</p> <p>Any given scenario in the table is technically efficient (all points on a total product curve). However, none of the points in the table are economically efficient, as the MRP is not €20. The required level of output is that for which the MRP would be €20.</p>	<p>2</p>

**PART 2 - Question 6**

(a)

Partial Budget of Susan, farmer			
Extra costs and revenue forgone		Extra revenue and costs forgone	
	€		€
<b>Extra costs</b>		<b>Extra revenue</b>	
Variable costs: €640×10	6,400	Milk rev: 10,000×10×0.33	33,000
Loan: €200×65	13,000	Calves: €300×10	3,000
<b>Revenue forgone</b>		<b>Costs saved</b>	
Slaughter rev: €1,250×10	12,500	Variable costs: €360×20	7,200
Heifers: €1,300×2	2,600		
<b>Total</b>	<b>34,500</b>	<b>Total</b>	<b>43,200</b>

25m  
(7 @ 3m)  
+  
(2 @ 2m)

**Surplus = 43,200 – 34,500 = €8,700**

5 (3 + 2)

(b)(i)

Cash flow budget: is used to project a business's cash inflows and outflows over a given period of time. Typically, cash flow budgets show monthly cash inflows and outflows (but can also be quarterly, weekly, daily), alongside the resulting deficit or surplus in business liquidity.

5  
(3+2)

(b)(ii)

Uses that can be made of a Cash flow budget (any three):

- A farmer – to assess whether or not the business can put a plan into operation (i.e. feasibility).
- Farmers – to identify periods in which cash flow will be in deficit, thereby enabling action to be taken in order to mitigate against liquidity issues during these periods.
- Farmers – to decide on the timing of plan implementation and whether the plan can be implemented over the short-term or if it needs to be implemented in stages over a longer period.
- Farmers – to demonstrate the financial feasibility of their plan to potential creditors, such as banks.
- To monitor progress in terms of plan implementation by comparing outcomes to budgeted figures (i.e. financial control).

3 @ 5m  
(3 + 2)

## 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

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