Leaving Certificate Examination 2006

Higher Level

Agricultural Economics

MARKING SCHEME
and
NOTES
for use with the Marking Scheme

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

- In many instances only key words are given i.e. these words must appear in the correct context in the candidate's answer in order to merit the assigned marks.

- The descriptions, methods and definitions in the scheme are **not** exclusive or definitive and alternative valid answers are acceptable.

- 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.

STATE EXAMINATIONS COMMISSION

AGRICULTURAL ECONOMICS – HIGHER LEVEL

OUTLINE OF MARKING SCHEME

PART ONE (120 MARKS)

Q1. 4 X 2 marks	Q2. 1 X 8 marks	Q3. 2 X 4 marks	Q4. 2 X 4 marks
Q5. 2 X 4 marks	Q6. 2 X 4 marks	Q7. 2 X 4 marks	Q8. 1 X 8 marks
Q9. 1 X 8 marks	Q10.1 X 8 marks	Q11.2 X 4 marks	Q12.2 X 4 marks
Q13. 1 X 8 marks	Q14 1 X 8 marks	Q15.1 X 8 marks	Q16.2 X 4 marks
Q17. 2 X 4 marks	Q18. 2 X 4 marks	Q19. 2 X 4 marks	Q20 6 + 2 marks

PART TWO (200 MARKS)

Question 1. (a) 1 x 10 marks
(b)(2x6) + (2x9) marks
(c) 10 marks graded

Question 2. (a) 2 x 8 marks graded
(b) 14 marks graded
(c) 2 X 10 marks graded

Question 3. (a) 4 x 4 marks graded
(b) 12+6 marks graded
(c) 8+8 marks graded

Question 4. (a) 8 marks graded
(b) (i) 10 marks (ii) 8 marks graded (iii) 2 x 6 marks graded
(c) 12 marks graded

Question 5. (a) 6 + 2x10 marks graded
(b) 3 x 8 marks graded

Question 6. (a) 3 points 18 marks graded
(b) 3 points 18 marks graded
(c) (2 X 4) + (1 x 6) marks graded

AGRICULTURAL ECONOMICS 2006
HIGHER LEVEL

(320 MARKS)

MARKING SCHEME

PART I (120 marks)

All questions carry equal marks (8 marks).

1. (i) Services 2 marks
(ii) Industry 2 marks
(iii) Agriculture 2 marks
In correct order of magnitude 2 marks

2. A farmer is a **self-employed person** farming land who considers **farming** to be his/her **principal gainful occupation**. 8 marks graded

3. (i) Farmers are reluctant to retire early.
(ii) Relatively slow turnover of farmers over time.
(iii)Low level education and training amongst farmers.
ANY 2 x 4 marks

4. (i) Large number of relatively small units.
(ii) Geographical dispersal of farming.
(iii) Variation of supply of agricultural products.
(iv) Bulky and perishable nature of agricultural products.
(v) Over-supply of agricultural products on international markets.
ANY 2 x 4 marks

5. DEFINITION: The earnings in the next best acceptable use. 4 marks
EXAMPLES: Farm worker versus factory worker
Farm investment versus savings or share purchase etc.
ANY 1 x 4 marks

6. (i) Low mobility of resources into and out of farming.
(ii) Some resources used in farming have few alternative uses.
(iii) Time lag involved in the production of agricultural products.
ANY 2 x 4 marks

7. (i) Large number of buyers and sellers.
(ii)Trade in uniform commodities.
(iii) Individually they cannot influence prices.
(iv) Full information on market conditions/perfect knowledge

ANY 2 x 4 marks

8. Demand for land derives from the contribution it is expected to make to production when combined with other resources. 8 marks

9. Revenue remains unchanged. 8 marks

10. It is that sum of money which if invested would produce the same income stream as the factor.
OR The present value of the expected income to be earned in the future

ANY 1 X 8 marks

11. Demand-pull inflation arises when the demand for goods exceeds the amounts available at existing prices. 4 marks
EXAMPLE: With full employment, a government is spending much more than the taxation it is raising. e.g. SSIAs, housing inflation, extra demand for land

ANY 1 X 4 marks

12. Ratio of **liquid assets** to **current liabilities.** 8 marks

13. How prices received by farmers for their output are moving in relation to the prices they must pay for inputs. 8 marks

14. It ignores many inputs involved in production. 8 marks

15. The tendency for input prices over time to increase more rapidly (or fall more slowly) than product prices. 8 marks

16. (i) Decrease in the level of farmers' income.
(ii) Unstable incomes and prices for farmers.
(iii) Small farmers would be forced out of farming. ANY 2 x 4 marks

17. (i) Increase in the contributions from Ireland to EU budget.
(ii) Decrease in budget transfers to Ireland.
(iii) More scope for exports.
(iv) Greater competition
(v) Niche markets ANY 2 X 4 marks

18. -Provision of off-farm employment opportunities.
-Provision of supplemental incomes. E.g. farmers' dole, "cheque in the post"
-Integrated rural development programmes, e.g. Leader

ANY 2 x 4 marks

19. Regulation : General application throughout the EU and is **binding in its entire detail.** Directive : **Binding only as to the results to be achieved,** while leaving, within prescribed limits, the choice of means to be employed to the member states.

8 marks

20. Consists of the aid given directly to developing countries. Most of the aid is for agricultural development schemes. 8 marks

MARKING SCHEME

PART II (200 marks)

All questions carry equal marks. (50 marks).

QUESTION 1 (50 Marks)

(a) Gross Agricultural Output of the National Farm is defined as that portion of the commodity **sold off all farms to other sectors of the economy** or for export, or which is consumed by persons on farms during the year of inquiry. Does not include any product used for further production 10 marks graded

(b) (i) **Gross Agricultural Product at market prices**

= Gross Agricultural Output	€14,500 m
less materials and services	€ 7,350 m
	€ 7,150 m

6 marks

(ii) **Gross Agricultural Product at factor cost**

= Gross Agricultural Product at market prices	€ 7,150 m
Plus subsidies	€ 4,625 m
	€ 11,775 m
Less levies	€ 70 m
	€ 11,705 m

9 marks

(iii) **Net Agricultural Product at factor cost**

= Gross Agricultural Product at factor cost	€ 11, 705 m
less Depreciation	€ 1,813 m
	€ 9,892 m

6 marks

(iv) **Family Farm Income of the National Farm**

= Net Agricultural Product at factor cost	€ 9,892 m
less salaries and wages	€ 640 m
	€ 9,252 m
Less Interest payments	€ 520 m
	€ 8,732m

9 marks

(c) Central Statistics Office Concerns

(i) Interest estimates contain an element of borrowing for personal purposes.

(ii) Interest estimates have not been adjusted to allow for interest received by agricultural producers on monies held by them in interest bearing accounts.

10 marks graded

QUESTION 2 (50 Marks)

(a)Factors to be considered

(i) Security i.e. collateral or net worth or equity which is assets less liabilities or the ability to secure the loan with assets 8 marks graded

(ii) Financial feasibility or repayment capacity which is the ability to service borrowings out of available income after living expenses have been deducted. 8 marks graded

(b) Net Cash Income = €40,000
Less Household expenditure = €32,000
Surplus € 8,000

Surplus = €8,000 = 25
Annual Repayment on a €1,000 loan €320
Maximum Loan = €25,000 14 marks graded

(c) (i) **Cash Flow Budgets** are used to test the financial feasibility of a farm plan. Financial Control i.e. monitoring the plan over time. 10 marks graded

(ii) **Investment Appraisal** are used to test the profitability which refers to economic returns to the investments involved in a farm plan. 10 marks graded

QUESTION 3 (50 Marks)

(a) Elastic Demand – A change in price results in a proportionately greater change in quantity demanded. 4 marks

Inelastic Demand – A change in price results in a proportionately smaller change in quantity demanded. 4 marks

The degree of elasticity depends on the availability of close substitutes. The greater the ease of substitution implies high demand elasticity.

(i) Products with an inelastic demand are those with limited close substitutes e.g. potatoes, milk etc

(ii) Products with an elastic demand are those with many close substitutes e.g. beef, mutton etc 2 X 4 marks

(b) (i) **Price elasticity of Demand**

$$= \frac{\%\text{ change in the quantity demanded}}{\%\text{ change in the price}}$$

$$= \left[\frac{+5}{\frac{1}{2}(30+35)} \times \frac{100}{1}\right] \div \left[\frac{-1}{\frac{1}{2}(3+2)} \times \frac{100}{1}\right]$$

$$= \frac{5}{32.5} \times \frac{100}{1} \times \frac{2.5}{-1} \times \frac{1}{100}$$

$$= \frac{5}{-13} = -0.385$$

OR $\frac{P_2 + P_1}{Q_1 + Q_2} \times \frac{\Delta Q}{\Delta P}$

$$= \frac{3+2}{30+35} \times \frac{+5}{-1}$$

$$= \frac{5}{1} \times \frac{5}{}$$

$$= \frac{5}{13} = -0.385$$

12 marks graded

(b) (ii) Demand is inelastic because the percentage change in the quantity demanded is less than the percentage change in the price. It is less than one in absolute terms.

6 marks

(c) Engel's' Law states that higher income groups in society spend a smaller proportion of their total income on food than lower income groups do. With greater affluence the percentage of income spent on food declines 8 marks

Implication for Irish agriculture is that food expenditure as a percentage of total spending declines with rising income which leads to **less demand for food** with **relative decline of the agricultural sector relative to the other sectors of the economy**. Farmers as a percentage of the labour force declines.

8 marks graded

QUESTION 4 (50 Marks)

(a) Production function is the concept that describes the nature of the relationship between products and factors. Production may increase or decrease as input levels are varied.
E.g. Crop output is influenced by the level of fertilizer used, area if land available, etc.

8 marks graded

(b) (i) Horizontal Axis – fertiliser input 2 marks
Vertical Axis - cereal output 2 marks

Upper Curve 2005 3 marks
Lower Curve 1990 3 marks

(iii) The shape of the production function is due to the Law of Diminishing Returns. As input levels increase output increases at a decreasing rate.
8 marks graded

(iii) Factors causing a shift in the production function are
(a) Technological progress – any change in production methods which enables more output to be obtained from a given quantity of resources e.g. better varieties of crops, breeds of animals.
6 marks graded

(b) Improved husbandry - involves greater attention by farmers to the details of crop and livestock production e.g. extra efficiency. 6 marks graded

(c) Criteria which guide farmers in making production decisions. Habit
(i) Desire for increased leisure;
(ii) Enhanced social status;
(iii) Reduced risk;
(iv) Increased sense of achievement;
(v) Profit maximization. 12 marks graded

QUESTION 5 (50 Marks)

(a) Decoupling is the breaking of the link between farm production and farm subsidies or payments. It is a single annual payment linked to the average production over three base years.

6 marks graded

Reasons for the introduction of "decoupling".

(i) Simplification of payment arrangements, one payment linked to entitlements.

(ii) Encourages greater market orientation, surpluses to the eliminated.

(iii) Reduces pressure on environment. Concern over pollution and soil erosion.

(iv) Improve the efficiency of income transfers / low income framers receive a greater share of subsidies.

2 points X 10 marks graded

(b) Possible effects of "decoupling" on:

(i) Farm Production – less production because payments not linked to production. No guaranteed prices / increase in organic markets.

(ii) Employment in Food Processing Industry –less products for processing leads to a reduction in employment Better quality food – possible increase.

(iii) Environment –Reduction of greenhouse emissions / use of crop rotations, less use of fertilizers etc will lead to a safer and cleaner environment.

(iv) Consumer – lower prices due to less market supports. Prices are determined by market focus/ better quality food leading to better health.

ANY 3 X 8 marks graded

QUESTION 6 (50 Marks)

(a) Economic Limitations of a Food Aid Policy for Less Developed Countries (LDCs)

(i) It is an expensive undertaking because farmers in the developed countries have to be paid to produce the food and transport and distribution may have to be paid for by the donor country.

(ii) Serious logistical problems about delivering the food to the hungry with the result that much of the food never reaches its intended destination.

(iii) Food aid may dislocate commercial trade because exporting countries may feel that commercial markets would exist in some countries if these countries were not getting free food.

(iv) Food aid may dislocate native production because when a country receives free food it might come to depend on such supplies to the detriment of its native production.

Any 3 points at 18 marks graded

(b) Reasons for Agreeing with the Statement

(i) Trade earns foreign exchange. Creates wealth leading to economic growth

(ii) Possible to import the resources needed for sustainable development

(iii) Possible to import food supplies

(iv) Trade provides employment

(v) Competitive advantage e.g. sugar, beef

(vi) Stability – economic and political

Any 3 points at 18 marks graded

OR

Reasons for Disagreeing with the Statement

(i) Restricted market access in developed countries

(ii) Low prices for food on world markets

(iii) The development of trading skills takes a very long period of time.

(iv) Questionable quality due to lack of standards

(v) Intensive methods causing surpluses of poor quality products

Any 3 points at 18 marks graded

(c) (i) **Postulations of Thomas Malthus**

1. Population was limited by the means of subsistence/ Population would eventually outstrip food supply. Population increases geometrically while food supplies increase arithmetically.
2. Population tended to increase faster than the means of subsistence unless prevented by some powerful checks e.g. famine, disease, war

10 marks graded

(ii) **Relevance of theory nowadays**

- Population control methods/ slow-down in population growth.
- Increase in food production due to better technology and new resources/improved production techniques
- Changes in lifestyle.

6 marks graded

END