



LEAVING CERTIFICATE EXAMINATION

2001

HOME ECONOMICS (SCIENTIFIC AND SOCIAL)

HIGHER AND ORDINARY LEVELS

CHIEF EXAMINER'S REPORT

Higher Level

1. Introduction

The Home Economics (Scientific and Social) Higher Level examination is a terminal written examination of 2 hours and 45 minutes duration. The examination paper has two sections, Section I – Scientific, which has **four** questions and Section II – Social, which has **five** questions. Candidates are required to answer **two** questions from Section I, **two** questions from Section II and **one** other question. All questions are worth 80 marks. The total mark available for the examination is 400.

2. Performance of Candidates

The number of candidates who sat the Home Economics (Social and Scientific) Higher Level paper in 2001 was 14,100 and this shows a decrease of 1,247 (8%) over the number of candidates in 2000. However, the total number of candidates taking Home Economics (Social and Scientific) Higher Level, when calculated as a percentage of the total Leaving Certificate candidature, shows a decrease of about 1.4% between 2000 (35.8%) and 2001 (34.2%).

The following is a summary of the grades awarded to candidates in 2001.

Total	A	B	C	D	E	F	N.G.
14,100	7.5	24.7	32.5	25.3	7.7	2.0	0.3

64.7% of candidates obtained a C or higher grade and 10% of candidates an E or lower rate. Results were broadly comparable with previous years.

A detailed breakdown of all the grades is included in the Appendix. This shows the sub-grades for each of the years 1998-2001.

3. Analysis of Paper

3.1 Average Mark and Response Rate per Question*

QUESTION	AVERAGE MARK (80 PER QUESTION)	AVERAGE MARK (RANK ORDER)	RESPONSE RATE (%)	RESPONSE RATE (RANK ORDER)
1	50	4	90.2	1
2	51	3	39.1	8
3	49	5	65.7	2
4	37	9	42.6	7
5	56	1	62.1	3
6	48	7	60.1	4
7	54	2	52.8	5
8	45	8	52.1	6
9	49	6	23.2	9

* Based on an analysis of the results of the random Sample 20

3.2 Analysis of Candidates' Responses

(This section of the report should be read in conjunction with the published marking scheme.)

Section 1 – Scientific

Question 1 – Protein

Average Mark: 50 (63%)

Response Rate: 90%

This was the most popular question of the examination, answered by 90% of candidates.

Chemical Structure - Candidates who answered well gave a very detailed account of the chemical structure. Candidates doing less well did not elaborate beyond the basic amino-acid structure, or gave a brief account of the elements found in proteins.

Classification - This was generally well answered. However, a number of candidates classified protein according to biological value.

Biological Value - This was well answered by many students. A number of candidates misinterpreted this for “Biological Functions”.

Deamination and Denaturation were well answered in general. However a number of candidates confused the terms.

Coagulation and Elasticity - This was the least well answered part of the question. Many candidates either failed to give a detailed explanation or did not give an example of the application in food preparation.

Question 2 - Fruit

Average Mark: 51 (64%)

Response Rate: 39%

This question was the second least popular question of the examination and the least popular in this section. The standard of answering varied from fair to excellent. Many candidates did not elaborate on their answers, giving just single words in many cases, and therefore lost marks.

Value of Fruit as Food Commodity - Many candidates focused only on the nutritional value of fruit. This might suggest that they did not fully understand the term “commodity”.

Classifications and Examples of Fruit - In general this part was well answered. However a number of candidates were not familiar with the classification of fruit and thus were not credited with any marks for relevant examples.

The Changes in Ripening Fruit - Generally well answered, although too little detail was given in some cases.

Effects of Cooking and Processing Fruit - Well answered by higher achieving candidates. Very little elaboration was given in many weaker answers, other than just a list of words.

Recipe - It was obvious that many candidates did not know what a Gateau was. The quantities and proportions of ingredients were generally incorrect. The method of cake making was also generally poor. There were many unsuitable recipes given, such as fruitcakes, tarts and pineapple upside down cake. Candidates who opted for fruit “hors d’oeuvres” also did not have a full comprehension of exactly what this entailed. Many chose dessert type fruit dishes, with consequent loss of marks.

Question 3 – The Liver

Average Mark: 49 (61%)

Response Rate: 66%

This was the second most popular question in Section I. The standard of answering was varied.

Position of Liver - This generally was well answered.

The Structure of the Human Liver - Many candidates failed to gain full marks, as they did not give sufficient detail in their accounts of the structure. Only the very good answers included the required six points.

The Diagrams - Most gave a diagram on the position, although many of the points relating to position were inaccurate. Many good diagrams on general structure were given, while few candidates gave a diagram of the structure of a lobule. Many did not give the eight points required.

Blood Circulation - This was generally well answered, although quite a number of candidates did not refer to the Portal Vein. The focus was mainly on the blood supply to and from the liver.

Metabolism of Nutrients - Many candidates listed the functions of the liver as the answer to this part of the question. Others gave a broad definition of the term but failed to apply this to the role of the liver. Many ignored this part of the question completely.

Homeostasis - Few candidates gave a good account of what this means. It was the least well-answered part of the question.

Question 4 – Freezing

Average Mark: 37 (46%)

Response Rate: 43%

This was not a popular question. When it was attempted, it was answered very poorly by all but a small number of candidates, making it the question that attained the lowest average mark.

Principles of Home Freezing and Freeze-Drying - In general this section of the question was poorly answered. Many candidates gave a general account of the process of freezing, instead of focusing on the “principles” of freezing. Many candidates had no knowledge of freeze-drying, with few mentioning “sublimation”.

Commercial Freezing - This section was generally poorly answered or omitted altogether. Some candidates gave an account of blast freezing only, with a minority referring to cryogenic, plate or immersion freezing. Quite a number attempted to offer freeze-drying as a method of freezing.

Vegetable Soup - Recipes for soups were described accurately by most candidates. A small number of answers included soup commercially prepared, thus losing significant marks. Instructions for packaging and freezing were usually good.

Ill-effects of incorrect Packaging and Defrosting - The majority of candidates did not give three points in each case. Many gave general rules for packaging and defrosting instead of referring specifically to the ill-effects.

Section II – Social

Question 5 – Marriage and Marriage Breakdown

Average Mark: 56 (70%)

Response Rate: 62%

This was the most popular question of Section II. It was also the question that obtained the highest average mark of the examination. Candidates attempting this question presented answers of a good standard and in many cases attained significantly better marks than on other questions.

The Social and Personal Factors of Marital Stability - More points were given on the personal factors, with some weaker answers not referring to social factors at all. A number of candidates took the negative slant and focused on “instability”.

The effects of Marriage Breakdown on Spouses and Children - This was well answered. Most candidates scored full marks here, presenting answers in a concise, structured manner under the specified headings.

The Family Law (Divorce) Act - Most candidates were familiar with the Act and answers were accurate.

The Judicial Separation Act - This was rarely attempted and when it was, it was poorly done.

The Family Mediation Service - Answers to this section were quite varied. Some presented detailed factually correct answers, while others regarded it as a counselling service only.

Question 6 – Education

Average Mark: 48 (60%)

Response Rate: 60%

This was also a popular question but many candidates did not score well, especially on the first two parts of the question.

Principal Features of Contemporary Education - A poor attempt was made in this section, indicating that candidates had no knowledge of what they were asked or did not understand the question. Many candidates did not structure their answers and wrote extensively on one or two features to the exclusion of others.

Educational Options - Many “features of education” were repeated here and candidates did not elaborate on the options identified. Many were familiar with the educational options available but failed to see the words “post- primary” and gave details of both primary and third level, thus losing valuable time as well as marks.

Factors affecting Educational Achievement - In general this was well answered and answers were clearly set out.

Reasons for Adults Returning to Education - This also was well answered though some overlap / repetition of information was evident within answers.

Agency Supporting Adults Return to Work - Most candidates named and described a related agency, with FÁS proving to be the most popular. A small number of candidates omitted this part of the question.

Question 7 – Small Kitchen Appliances

Average Mark: 54 (67%)

Response Rate: 53%

Candidates who attempted this question generally scored well. It was a fairly popular question. The most significant error was the failure by candidates to identify appropriate small appliances.

Modern Trends – Well-developed answers, attaining full marks, were given by many candidates. However, there were quite a number of candidates who did not appear to be up to date with modern developments in relation to appliances, indicating perhaps an over-reliance on textbooks.

Appliances Chosen - For the most part, these were afforded full marks. Students were not too severely penalised for choosing large appliances, as relevant correct information was credited for marks. Good detail was generally given on “construction” and “cost”. However, “modern features” and “working principles” were not always of a high standard. Many candidates who chose the larger appliances (washing machines, fridges, microwave cookers, etc.) did not seem to know the appliance particularly well and therefore did not score well.

Usefulness and Energy Efficiency - This was answered well by some candidates but quite a number of candidates who scored poorly were able to provide only one brief point of information on each.

Question 8 - Flooring

Average Mark: 45 (55 %)

Response Rate: 52%

This was a fairly popular choice of question but the standard of answering overall was disappointing.

Functional Requirements - Candidates in general did not seem to have any difficulty with this part of the question.

Account of Flooring - Many candidates lost valuable marks by giving very scant and/or irrelevant information. The majority gave no more than one brief point on composition. Many of the answers given for properties were confined to single words without any elaboration or explanation. Care and cleaning was generally well known, with fully correct answers given by most candidates. Many however displayed a poor level of knowledge with regard to the cost of the selected floor covering. Reference to floor size and / or measurement was omitted in most answers.

Cleaning Agents - This final part of the question was omitted by the majority of candidates. Many candidates who attempted it showed little knowledge of the composition or principles related to cleaning agents.

Question 9 - Electricity

Average Mark: 49 (61%)

Response Rate: 23%

This was the least popular question of the examination, being attempted by less than a quarter of candidates. However, those who attempted it usually scored well.

Description of Household Electrical System - This section of the question was well answered. Answers were concise, accurate and usually supported by clearly labelled diagrams. Marks were lost where candidates gave only one point on each part of the system or omitted a required part altogether.

Diagrams - Diagrams were generally very good. The most frequent error was the omission of the earth wire.

Kilowatt-hour, Nightsaver, Earth-wire - These were well known in general by the majority of candidates.

Electrical Safety Symbol - Some candidates scored well here but others provided symbols that did not relate to electricity or were incorrect.

4. Overall General Comment

Examiners in general considered that the examination afforded the majority of candidates the opportunity to show their knowledge of the subject matter. Questions were considered to be well balanced and challenging.

The following are the principal points that emerged from Examiners' reports. These contributed to loss of marks for many candidates.

- a failure to comply with the general instructions pertaining to the number of questions to be answered and the sections from which questions are required to be selected
- lack of adequate knowledge of all the essential elements of a topic, leading to incomplete answers and to sections of questions being omitted. This was particularly evident in the following questions this year:
 - Q.1- Elasticity; Q.3 - Homeostasis; Q.4 - Principles of freezing and modern methods of commercial freezing; Q.6 - Principal features of contemporary education; Q.8 - Composition / principles of floor cleaning agents.
- misinterpretation of questions / lack of understanding of critical terms were evident this year in answers to the following parts of questions:
 - Q.1- *Biological Functions* given instead of *Biological Value*.
Classification of protein structure misinterpreted as *Biological Value*
 - Q.2 - Difficulty with the phrase *Food Commodity*
 - Q.4 - Difficulty with the phrase *Underlying Principles*.
Ignoring the phrase *Ill- effects*
 - Q.5 - *Instability* as opposed to *Stability*
 - Q.6 - Difficulty with the phrase *Contemporary Education*.
Post-Primary ignored, all levels of the system dealt with
 - Q.7 - Incorrect interpretation of *Small Appliance*.
- use of summary points where the question required discussion, explanation or a more complete statement.

Candidates who attained less than a Grade D (10%) generally demonstrated poor knowledge of the subject matter, particularly in Section I - Scientific; they attempted fewer than the required number of questions and frequently omitted sections of questions. It was noted that a high rate of failures came from particular centres, rather than being spread evenly throughout most centres.

The comment was made by the examiners that many candidates do not keep up to date with modern trends, new developments and information.

5. Recommendations for Teachers and Students

Students should read questions carefully. This should help to reduce the omission of parts of questions and the misinterpretation of aspects of questions.

Answers should be planned and **should focus on all the key elements of the question**. This is particularly important when answering Social questions, in order to avoid repeating points of information and/or providing an inadequate range of points within a section of a question.

The content of Home Economics is subject to constant change and updating. It is important that current developments in relation to subject matter are reflected in the course of study through the **use of materials other than the usual textbooks**.

Ordinary Level

1. Introduction

The Home Economics (Social and Scientific) Ordinary Level examination is a terminal written examination of 2 hours and 45 minutes duration. The examination paper has two sections, Section I – Scientific, which has four questions and Section II – Social, which has **five** questions. Candidates are required to answer **one** question from Section I, **one** question from Section II and **three** other questions. All questions are worth 80 marks. The total marks available for the examination is 400.

2. Performance of Candidates.

The number of candidates who sat the Home Economics (Social and Scientific) Ordinary Level paper in 2001 was 5,305, this shows a decrease of 1064 (16.7%) over the number of candidates in 2000. However the total number of candidates taking Home Economics (Social and Scientific) Ordinary Level, when calculated as a percentage of the total Leaving Certificate candidature, shows a decrease of 1.6% between 2001 (35.8% of cohort) and 2001 (34.2%).

The following is a summary of the grades awarded to candidates in 2001.

Total	A	B	C	D	E	F	N.G.
5305	3.8	22.2	35.1	28.3	7.5	2.7	0.4

61% of candidates achieved a grade C or higher with 10.6% of candidates achieving a grade E or lower.

This represents a C or higher-grade rate of 61% and an E or lower rate of 10.6%. Results were broadly comparable with previous years.

A detailed breakdown of all the grades is included in the Appendix. This shows the sub-grades for each of the years 1998-2001.

3. Analysis of Paper

3.1 Average Mark and Response Rate per Question*

QUESTION	AVERAGE MARK	AVERAGE MARK	RESPONSE RATE	RESPONSE RATE
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	(%)	(RANK ORDER)	(%)	(RANK ORDER)
1	39	7	52	4
2	48	3	44	6
3	42	6	35	7
4	38.5	8	28	9
5	51	1	95	1
6	49	2	92	2
7	43.5	4	48	5
8	33	9	32	8
9	43	5	53	3

* Based on an analysis of the results of the random Sample 20

3.2 Analysis of Candidates' Responses

(This section of the report should be read in conjunction with the published marking scheme.)

Section I – Scientific

Question 1 - Vitamin C

Average Mark: 31 (39%)

Response Rate: 52%

This was the most popular question in Section 1. The level of answering was varied, with the better answers meeting the full requirements of the question. Weaker answers were characterised by the omission of several parts of the question. Quite a few answers confused Vitamin C with Vitamin D and / or Calcium.

Functions of Vitamin C - This was either well done or stated as general nutrition functions.

Sources - Generally two / three sources were stated, with only better answers including non-fruit examples.

Candidates who knew *functions* tended also to know *effects of deficiency* and so attained full marks for these parts of the question. Many candidates did not appear to understand '*properties*' or '*minimised*' and consequently lost marks for each.

Question 2 - Meat

Average Mark: 38 (48%)

Response Rate: 44 %

This was not a popular question, but where attempted, marks earned were high.

Nutritive value, structure and effects of cooking meat - All were known by most candidates. Diagrams were used to illustrate structure effectively.

Meat recipe - The most popular recipes were Spaghetti Bolognese and Lasagne. Many recipes lost marks due to incorrect and / or no quantities being stated. A number of recipes included more expensive cuts of meat, resulting in mark loss. The inability to present recipes in accordance with examination requirements remains a problem for many candidates.

TVP - Few candidates were familiar with TVP, with many omitting to answer this part.

Question 3 - The Human Heart

Average Mark: 34 (42%)

Response Rate: 35%

Aspects of this question which were well known included *position* and names of different *structural* parts. Many candidates, while knowing the different parts by name, confused the left and right chambers and were unable to identify specific blood vessels and valves relative to one another and to other structural parts.

Diagrams - These varied from accurately drawn and clearly labelled examples to others that were mere sketches with no clearly presented information.

The Circulation of the Blood - This was well answered by the better candidates and was frequently omitted on some answers.

Factors that affect Heartbeat - While most answers mentioned the factors that affect heartbeat, many lacked any explanation of the factors.

Question 4 - Cereals

Average Mark: 30 (38.5%)

Response Rate: 28%

This was the least popular question of the examination.

In general candidates who attempted the question showed a good knowledge and understanding of the *nutritional value of cereals*.

Dietetic and Economic Value - This was often omitted or poorly attempted with usually just one point relating to each being given. Answers very often referred to breakfast cereals as distinct from cereals in general.

Making of Pasta and Types - Very few candidates knew how pasta is made. A significant number interpreted this part as 'how to cook pasta'. Types of pasta were well known with many examples given.

Pasta Dish - Recipes such as Spaghetti Bolognese and Lasagne again were the most popular. Marks were lost for use of convenience sauces in recipes.

Costing - Few candidates gained full marks for costing. Either a single cost was stated with no calculation displayed or it was omitted altogether.

Section II – Social

Question 5 – Alcohol

Average Mark: 41 (51%)

Response Rate: 95%

This was the most popular question of the examination, attracting a 95% response rate and attaining the highest average mark. A number of candidates apparently interpreted the first section of the question as an introduction and omitted to comment on the statement. Those that did comment on drinking as a social problem used the opportunity to express their opinions on the present-day use of alcohol by teenagers and provided many well developed, good answers.

Guidelines for Sensible use of Alcohol - Candidates voiced their opinions at length on drinking as an increasing social problem and the majority provided good, well developed answers. A number of candidates misinterpreted this part of the question and gave guidelines for combating underage drinking.

Effects of Alcohol - Answers in relation to the effects of alcohol on the human body were often vague and not relevant. Where answers referred to the effects of drinking on both the family and society, high marks were generally gained. Weaker answers frequently omitted reference to effects on society. While the question required an

account of the effects of alcohol, many answers just listed points and did not make any attempt to expand upon them.

Source of Help - Almost all students listed the Alcoholics Anonymous but many failed to provide any descriptive information on the help provided by this or other organisations.

Question 6 – Early School Leaving / Youth Clubs and Play Groups / Changes in the Workforce / Social Welfare Services

Average Mark: 39 (49%)

Response Rate: 92%

This was the second most popular question of the examination, with parts (i) and (ii) being the most popular within the question, which has four parts, two of which a candidate is required to answer.

The Causes and the Effects of Young People dropping out of School - The causes section was well done, except where key points were listed without detail being given. Effects were either omitted or poorly done, resulting in mark loss.

Advantages of Youth Clubs and Playgroups - The majority of candidates provided three good points on youth clubs. Many candidates seemed to confuse playgroups with playgrounds and lost marks.

Foreign Nationals in the Workforce - This was the least popular part within the question. Many answers referred to refugees and asylum seekers and failed to identify the key focus of the question.

Social Welfare Services for Retired / Elderly - The majority of candidates attempting this part of the question did not have sufficient knowledge of social welfare services to provide an adequate answer. Answers either listed a range of services or gave details of at most two / three. Some answers referred to services not available for retired / elderly persons.

Question 7 - Budgeting

Average Mark: 35 (43.5%)

Response Rate: 48%

Guidelines to be followed when drawing up a Budget - This part of the question presented difficulties for many candidates and was frequently omitted. Often general guidelines relating to shopping were given in error.

Compulsory and Optional Income Deductions - Many candidates seemed to be confused between compulsory and optional income deductions and gave incorrect information.

Planning a Household Budget - This part of the question was very well answered; many candidates planned a comprehensive household budget including all the major key areas of expenditure. Weaker answers did not include essentials and gave unrealistic amounts for food, rent, etc.

The majority of answers wrote on the *Medical Card Scheme* and many scored full marks here.

Question 8 - Colour Schemes / Paint

Average Mark: 26 (33%)

Response Rate: 32%

This was the second least popular question of the examination and attained the lowest average mark.

Factors relating to Planning Colour Schemes - Many candidates did not list any factors while others just listed key words with no explanation and more repeated points already stated.

Composition of Paint - Only a minority of answers presented was correct. The difference between oil-based and water-based paints was equally poorly attempted, with often only one point of information stated.

The Advantages of using Paint as a Finish - This was well known and most candidates attained full marks.

Description of Decorative Paint Finishes - Known by the majority of candidates, with rag rolling, sponging and stencilling being the more popular options. Answers where marks were lost showed an apparent lack of understanding of decorative paint finishes and referred to paint colours, decorative rails, etc., instead.

Question 9 - Energy Use / Insulation

Average Mark: 34 (43%)

Response Rate: 53%

This was the third most popular question on the paper.

The Importance of Conserving Energy - Most answers included at least two correct points.

The Principle of Insulation - Candidates had difficulty explaining this and frequently omitted any reference to the principle. Answers were generally vague and lacking in detail.

Insulation Materials - While most answers named suitable materials for the different areas specified in the question, few could provide any details of the materials and thus lost significant marks. A small number of answers gave clear, concise illustrations of the insulation used and gained full marks.

Almost all candidates were familiar with the guidelines for *Saving Energy* and many obtained full marks for this section of the question.

4. Overall General Comment

- The examination paper was well received and considered to be student friendly
- The range of topics provided most students with the opportunity to attempt the required number of questions
- Social questions (Questions 5 and 6) were presented with an improved layout and there was less 'off the point' answering than in previous years.

The following are the principal points that emerged from Examiners' reports as contributing to loss of marks for many candidates:

- a failure to comply with the general instructions pertaining to the number of questions to be answered; **a significant number of candidates do not attempt five questions**
- lack of adequate knowledge of all the essential elements of a topic, leading to incomplete answers and sections of questions being omitted; this was particularly evident in the following questions this year:
 - Q.1 - Properties and effects of deficiency of Vitamin C
 - Q.3 - Blood Circulation between heart and lungs
 - Q.4 - Dietetic and economic value of cereals
 - Q.8 - Composition of paints
 - Q.9 - Details of insulation materials
- misinterpretation of questions / lack of understanding of critical terms
- use of summary points where discussion or explanation was required.

5. Recommendations for Teachers and Students

Students should read questions carefully. This should help to alleviate the omission of parts of questions and the misinterpretation of aspects of questions.

Answers should be planned and should **focus on all the key elements** of the question. This is particularly important when answering Social questions in order to avoid repeating points of information and/or providing an inadequate range of points within a section of a question.

Students need a constant **reminder to attempt the required five questions.** Candidates who gain low marks on questions answered find it particularly difficult to attain a grade D if five questions are not at least attempted.

Recipes within questions generally attract 40% of the marks for the question. Significant marks are lost where recipes are not **presented in** accordance with the **usual recipe format.** Information must be given on ingredients to include amounts, method of preparing, cooking where applicable and serving.

Appendix 1

Home Economics (S&S) Candidature, 1996-2001 Higher and Ordinary Levels

YEAR	CANDIDATES TAKING HOME ECONOMICS (S&S)	CANDIDATES TAKING HOME ECONOMICS (S&S) HIGHER	CANDIDATES TAKING HOME ECONOMICS (S&S) ORDINARY
1996	22,055	16,323	5,732
1997	23,849	16,931	6,918
1998	24,181	17,626	6,555
1999	22,957	16,676	6,281
2000	21,716	15,347	6,369
2001	19,405	14,100	5,305

PERCENTAGE BREAKDOWN BY GRADE LEAVING CERTIFICATE, HIGHER LEVEL, 1999-01

Year	A1	A2	B1	B2	B3	C1	C2	C3	D1	D2	D3	E	F	NG
1999	1.8	3.6	4.1	7.3	10.6	9.4	12.5	13.5	8.8	9.4	9.9	7.4	1.5	0.2
2000	2.7	4.8	6.0	8.5	10.7	10.3	11.4	11.8	9.1	8.5	8.0	6.9	1.2	0.2
2001	2.8	4.7	5.4	8.2	11.1	9.4	11.3	11.8	8.5	8.4	8.4	7.7	2.0	0.3

PERCENTAGE BREAKDOWN BY GRADE LEAVING CERTIFICATE, ORDINARY LEVEL, 1999-01

Year	A1	A2	B1	B2	B3	C1	C2	C3	D1	D2	D3	E	F	NG
1999	0.2	2.2	1.7	5.7	11.6	8.4	13.5	15.8	9.3	9.8	12.1	6.8	2.3	0.6
2000	0.3	1.9	1.5	5.3	11.8	8.5	12.7	15.9	9.0	9.8	13.3	7.2	2.3	0.4
2001	0.7	3.1	3.1	7.3	11.8	9.1	11.9	14.1	8.0	9.3	11.0	7.5	2.7	0.4