

Write your Examination Number here

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2007. M.48



**Coimisiún na Scrúduithe Stáit  
State Examinations Commission**

**Leaving Certificate Examination 2007**

**HOME ECONOMICS – SCIENTIFIC AND SOCIAL  
HIGHER LEVEL**

<b>CENTRE STAMP</b>

**FRIDAY, 8 JUNE – AFTERNOON, 2.00 to 4.30**

**280/320 MARKS**

*Instructions to Candidates*

**Section A** There are **twelve** questions in this section.  
Candidates are required to answer any **ten** questions.  
Each question carries **6** marks.  
**Write your answers in the spaces provided on the examination paper.**

**Section B** There are **five** questions in this section.  
Candidates are required to answer **Question 1 and any other two questions.**  
Question **1** is worth **80** marks.  
Questions **2, 3, 4** and **5** are worth **50** marks each.  
**Write your answers in the separate answer book provided.**

**Section C** There are **three** questions in this section.  
Candidates are required to answer **one** elective question to include **part (a)** and either **part (b) or part (c).**  
**Candidates who submitted Textiles, Fashion and Design coursework for examination may only attempt Question 2 from this section.**  
Electives **1** and **3** are worth **80** marks each. Elective **2** is worth **40** marks.  
**Write your answers in the separate answer book provided.**

**You must return your examination paper with your answer book at the end of the examination.**

## Section A

Answer any **ten** questions from this section.

Each question is worth 6 marks.

Write your answers in the spaces provided.

1. Name **two** methods by which protein can be denatured and give an example in **each** case. (6)

Method	Example

2. Complete the following in relation to the digestion of carbohydrates. (6)

Secretion	Enzyme	Substrate	Product
Saliva	Salivary Amylase		
Intestinal Juice	Lactase		

3. (a) List **four** different sources of calcium in the diet. (6)

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

(iii) \_\_\_\_\_

(iv) \_\_\_\_\_

- (b) Identify **two** factors that inhibit the absorption of calcium.

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

4. In relation to eggs explain **each** of the following: (6)

(i) Albumin \_\_\_\_\_  
\_\_\_\_\_

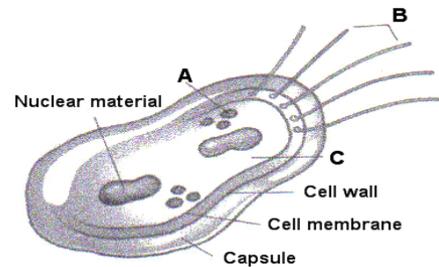
(ii) Lecithin \_\_\_\_\_  
\_\_\_\_\_

5. Name A, B and C as shown on the diagram of a bacterial cell. (6)

A \_\_\_\_\_

B \_\_\_\_\_

C \_\_\_\_\_



6. Define **each** of the following methods of cooking: (6)

(i) Poaching \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(ii) Pot Roasting \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. State **two** different functions of An Bord Bia (Irish Food Board) in the Irish Food Industry. (6)

(i) \_\_\_\_\_  
\_\_\_\_\_

(ii) \_\_\_\_\_  
\_\_\_\_\_

8. (a) Outline the main function of *Omega-3 fatty acids* in the diet. (6)

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(b) Name **two** foods that are rich in *Omega-3 fatty acids*.

(i) \_\_\_\_\_ (ii) \_\_\_\_\_

9. (a) State **two** advantages of using flexible films (plastics) as packaging materials. (6)

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

(b) Identify **one** initiative implemented to reduce the impact of excess packaging on the environment.

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10. Identify **two** requirements of the *Fire Safety (Domestic Furniture) Order (1988) (1995)*.

(6)

(i) \_\_\_\_\_

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(ii) \_\_\_\_\_

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11. State **one** advantage of **each** of the following types of mortgage interest rates. (6)

(i) *Fixed rate* \_\_\_\_\_

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(ii) *Variable rate* \_\_\_\_\_

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12. State **two** benefits of the *Small Claims Procedure*. (6)

(i) \_\_\_\_\_

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(ii) \_\_\_\_\_

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## Section B

Answer Question 1 and any other two questions from this section.  
Question 1 is worth 80 marks. Questions 2, 3, 4 and 5 are worth 50 marks each.

1. “Mandatory fortification with folic acid of most breads on sale in Ireland is the policy recommendation by the National Committee on Folic Acid Food Fortification”.  
(Press release 2006).

The following table provides information on the nutritive value of commonly used breads. (Nutritional information per 100g).

	Energy	Protein	Fat	Starch	Fibre	Vitamins	Minerals
White Bread	251kcal	8g	1.7g	43.3g	3.6g	2.8mg	Iron 1.7mg Calcium 100mg
Wholemeal Bread	241kcal	9.6g	3.1g	40.7g	6.0g	2.23mg	Iron 3mg Calcium 28mg
Crispbread (Ryvita)	318kcal	8.5g	2.1g	65.5g	18.0g	1.91mg	Iron 3.3mg Calcium 86mg
Flour Tortillas	313kcal	8.6g	7g	52.9g	1.4g	Trace	Sodium 1.1g

- (a) Using the information provided in the table, evaluate **and** compare the contribution that each bread makes to the Irish diet. (24)
- (b) In relation to starch, explain **each** of the following:  
(i) gelatinisation  
(ii) dextrinisation. (12)
- (c) Give an account of *folic acid/folate* and refer to:  
(i) sources in the diet  
(ii) properties  
(iii) biological functions  
(iv) recommended dietary allowance (RDA). (28)
- (d) Define food fortification.  
Outline the benefits of fortified foods to the consumer **and** to the food manufacturer. (16)

2. **“Coronary Heart Disease (CHD) remains the leading cause of death in Ireland accounting for over 7,000 deaths annually”.**

*(CHAIR – Coronary Heart Attack Ireland Register)*

- (a) Identify and elaborate on (i) the lifestyle changes **and** (ii) the dietary guidelines that should be followed in order to reduce the incidence of coronary heart disease. (16)
- (b) Plan a day’s menu for a person with coronary heart disease (CHD). Include **one** *functional food* in the menu and state a reason for its inclusion. (22)
- (c) Write an informative account of cholesterol. (12)

3. **“Sensory analysis is a scientific discipline used to evoke, measure, analyse and interpret reactions to those characteristics of foods as they are perceived by the senses of sight, smell, taste, touch and hearing”.**

*(Institute of Food Technologists, 1981)*

- (a) Discuss the influence of any **three** of the senses when choosing, buying or eating food. (15)
- (b) Name **three** categories of *Sensory Analysis* tests and list **one** test from each category. (15)
- (c) Set out the conditions necessary for conducting *Sensory Analysis* testing to ensure accurate results. (20)

**4. Refrigeration appliances are an integral part of modern day kitchens.**

(a) Set out details of a study that you have undertaken on a refrigeration appliance.

Refer to:

(i) type of refrigeration appliance

(ii) working principle

(iii) guidelines for use

(iv) modern features

(v) energy efficiency rating. (38)

(b) Give a detailed account of the star rating system found on refrigeration appliances. (12)

**5. “ ‘Special needs’ refers to a diverse range of needs often caused by a medical, physical, mental or developmental condition or disability”.**

*Scoil.net*

(a) Identify and elaborate on the difficulties that the family unit may experience when a member of the family has special needs. (18)

(b) Discuss how a family might respond to the needs of a member who has a disability. (20)

(c) Outline the role of the *Rehab Group*. (12)

## Section C

Answer one elective question from this section.

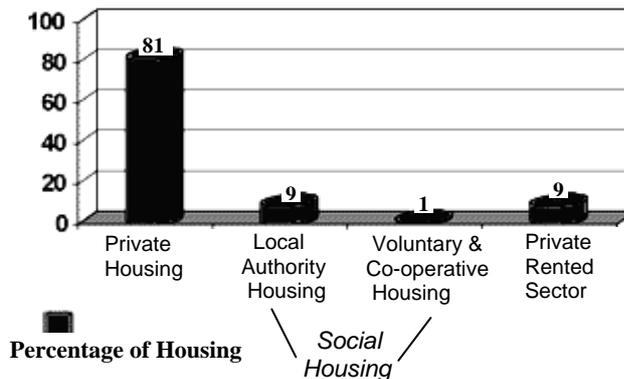
Candidates who submitted Textiles, Fashion and Design coursework for examination may only attempt Question 2.

### Elective 1 - Home Design and Management (80 marks)

Candidates selecting this elective must answer 1(a) and either 1(b) or 1(c).

1. (a) Housing in Ireland has undergone many changes in recent years.

Breakdown of the Housing Sector in Ireland – year 2000



- Source: ICSH publications

- (i) Using the information provided above:
- discuss the provision of housing in Ireland in the year 2000 **and**
  - comment on the adequacy of housing provision in each sector mentioned. (24)
- (ii) Differentiate between *Local Authority Housing* and *Co-Operative Housing*. (10)
- (iii) Evaluate the importance of local amenities and services in housing developments. (16)

**and**

1. (b) (i) Discuss the factors to be considered when selecting floor coverings for a family home. (12)
- (ii) Describe **one** hard flooring and **one** semi-hard flooring that you would recommend for the hallway. In **each** case refer to:
- type of flooring
  - properties. (18)

**or**

1. (c) “Sustainable energy refers to a way we can use and generate energy that is more efficient and less harmful to the environment”.

*Energy Master, Renewable Energy Solutions*

- (i) Give details of **one** type of renewable energy that you would recommend when building a new house. Refer to:
- source
  - sustainability
  - efficiency / effectiveness. (18)
- (ii) Describe **three** different methods of reducing harmful emissions in the environment. (12)

## Elective 2 - Textiles, Fashion and Design (40 marks)

Candidates selecting this elective must answer 2(a) and either 2(b) or 2(c).

2. (a) **The increasing involvement of people in sport has led to an increase in demand for trendy, yet practical sportswear.**

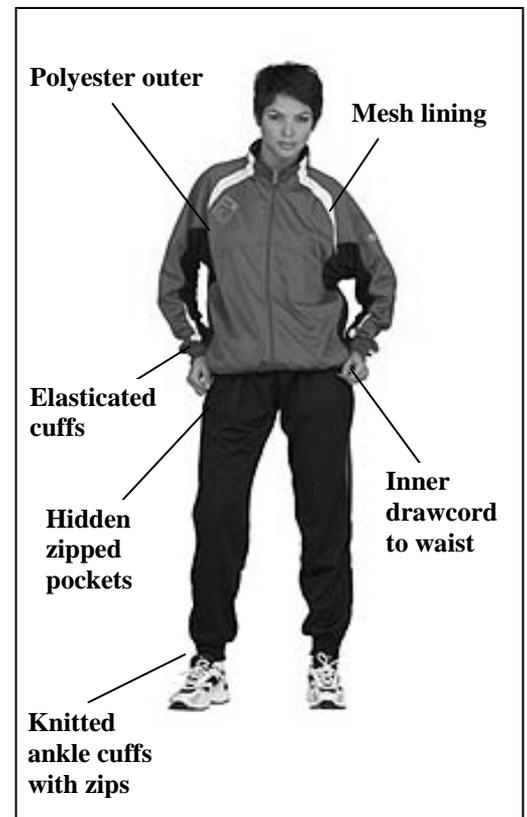
The illustration shows a unisex tracksuit.

- (i) Evaluate this tracksuit with regard to:

- functional use
- comfort when wearing
- how **two** principles of design have been applied in the design of the garment.

(17)

- (ii) Name and describe a fabric construction technique suitable for polyester fabric. (8)



and

2. (b) **Raw materials such as wool and linen have been used in Irish Fashion for centuries.**

Write a profile of **one** natural fabric you have studied. Refer to:

- fibre production
- fabric properties
- fibre identification test.

(15)

or

2. (c) **The Irish clothing and textile sector has evolved from Aran jumpers and tweed skirts to much fresher and creative designs.**

- (i) Discuss the work of **one** Irish designer who has played an important role in this development. (9)

- (ii) Outline **two** difficulties affecting the Irish textile industry. (6)

### **Elective 3 - Social Studies (80 marks)**

**Candidates selecting this elective must answer 3(a) and either 3(b) or 3(c).**

- 3. (a) The 1990s has seen significant changes in the employment opportunities available in Ireland.**
- (i) Discuss how patterns of work **and** work availability have been affected by
- developing technology
  - the decline in primary and secondary industries and the growth in service industries
  - increased educational requirements. (30)
- (ii) Explain how improved working conditions have allowed women to participate more fully in the workforce. (12)
- (iii) Write an informative note on the Protection of Young Persons (Employment) Act (1996). (8)

**and**

- 3. (b) (i) Identify two groups of people who have difficulty in securing employment **and** discuss reasons for high unemployment among each group named. (18)**
- (ii) Outline the effects of unemployment on society. (12)

**or**

- 3. (c) (i) Discuss the function and value of leisure in today's society. (15)**
- (ii) Outline how social and cultural influences impact on a person's choice of leisure activities. (15)

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