

AN ROINN OIDEACHAIS AGUS EOLAIOCHTA

LEAVING CERTIFICATE EXAMINATION, 2001

# HOME ECONOMICS (SCIENTIFIC AND SOCIAL)

**HIGHER LEVEL**

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**TUESDAY, 12 JUNE - AFTERNOON, 2.00 to 4.45**

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(400 marks)

**Five** questions to be answered.

**Two** questions must be chosen from **each** Section, the other question at choice of candidate.  
All questions carry equal marks.

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## **SECTION I – SCIENTIFIC**

1. Give an account of the chemical structure of protein.  
Classify protein according to structure and describe each type of protein mentioned.  
In relation to protein give a detailed explanation of **(i)** biological value, **(ii)** deamination and **(iii)** denaturation.  
Explain how the following properties are applied in food preparation **(a)** coagulation and **(b)** elasticity.
  
2. Assess the value of fruit as a food commodity.  
Set out the results of a study you have undertaken on fruit and refer to:  
**(i)** classification and examples of each class;  
**(ii)** the changes that take place in fruit as it ripens;  
**(iii)** the physical and chemical effects of cooking and processing on fruit.  
Give full directions for the method of preparing and serving a fruit gateau **or** a selection of fruit hors d'oeuvres.
  
3. Give a detailed account of **(i)** the position and **(ii)** the structure of the human liver.  
Use labelled diagrams to illustrate your answer.  
Describe blood circulation in the liver.  
Explain the role of the liver in relation to **(a)** metabolism of nutrients and **(b)** homeostasis.
  
4. Explain the underlying principles involved in **(i)** home freezing and **(ii)** freeze-drying.  
Describe **two** methods of commercial freezing which are commonly used.  
Give full directions for preparing, cooking, packaging and freezing a small quantity of fresh vegetable soup.  
Explain the possible ill-effects that may result if correct procedures are not followed when **(a)** packaging food for the freezer and **(b)** defrosting food.

## SECTION 11 – SOCIAL

5. Give an account of **(i)** the social and **(ii)** the personal factors that contribute to marriage stability.  
Discuss the effects of marriage breakdown on spouses and children.  
Write an informative account of **two** of the following:  
**(i)** The Family Law (Divorce) Act 1996;  
**(ii)** The Judicial Separation Act 1989 amended by the Family Law Act 1995;  
**(iii)** The Family Mediation Service.
6. The education system has undergone many changes in recent times.  
Give an account of **each** of the following:  
**(i)** some of the principal features of contemporary education;  
**(ii)** the variety of educational options now available to students in post-primary schools in Ireland;  
**(iii)** the factors that affect educational achievement.  
Discuss the reasons for the increase in the number of adults returning to education and give a brief account of **one** agency that supports adults in returning to education.
7. Discuss some modern trends in the development of small kitchen appliances and equipment. Name **two** small kitchen appliances, one that includes a motor and one that includes a heating element, that you would recommend for a family kitchen.  
Give a detailed account of **each** appliance and refer to **(i)** construction; **(ii)** modern features; **(iii)** working principle and **(iv)** cost.  
In relation to **one** of the appliances, discuss its merits with regard to **(a)** usefulness and **(b)** energy efficiency.
8. Enumerate the functional requirements of flooring for a family living room.  
Suggest **two** different types of flooring which would be suitable for a living room.  
Give a detailed account of **each** under the following headings:  
**(i)** composition; **(ii)** properties; **(iii)** care and cleaning; **(iv)** cost.  
State **(a)** the composition and **(b)** the principles underlying the cleansing action of **one** type of floor cleaning agent.
9. Describe, with the aid of a labelled diagram, a household electrical system. Include reference to the function of **(i)** the meter, **(ii)** the mains switch **(iii)** the fuse box / miniature circuit breakers, **(iv)** the ring circuit.  
Explain **each** of the following: **(a)** kilowatt-hour, **(b)** *nightsaver* electricity and **(c)** earth wire.  
Describe **one** electrical safety mark.