



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

**Leaving Certificate 2012**

**Marking Scheme**

**Home Economics – Scientific and Social**

**Ordinary Level**





# *Coimisiun na Scrúduithe Stáit* **State Examinations Commission**

**Leaving Certificate Examination, 2012**

**HOME ECONOMICS – SCIENTIFIC AND SOCIAL**

**ORDINARY LEVEL**

**WRITTEN EXAMINATION**

**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.
- 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.
- 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)**.  
Electives **1 and 3** are worth **80** marks each. Elective **2** is worth **40** marks.

In developing the marking schemes the following should be noted:

- In many cases only key phrases are given which contain information and ideas that must appear in the candidate's answer in order to merit the assigned marks
- The descriptions, methods and definitions in the scheme are not exhaustive 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 and mark allocations 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 contradiction, the marks may not be awarded.

## Section A

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

Each question is worth 6 marks.

Write your answers in the spaces provided.

1. In relation to proteins, indicate with a tick (✓) whether each of the following statements is true or false. (6)

Protein	True	False
Proteins are large molecules made up of smaller units called amino acids.	✓	
Albumin is the protein found in egg white.	✓	
Peas, beans and lentils are examples of high biological value protein foods		✓

2. Complete the following statements in relation to the properties of starch using the words listed below. (6)

***insoluble, gelatinisation, hygroscopic***

Starch can absorb moisture from the air because it is hygroscopic.

When starch is heated, it swells, bursts and absorbs the liquid in a process known as gelatinisation.

Starch is insoluble in cold water.

3. List **three** biological functions of water. (6)

- (i) regulates body temperature, component of all body cells, removal of waste,
- (ii) quenches thirst, necessary for breakdown of food during digestion, transports
- (iii) nutrients, oxygen, carbon dioxide, hormones and enzymes around body, provides minerals – calcium, fluorine, etc.

4. What is meant by the term *anaemia*? (6)

Disorder due to iron deficiency or its absorption in the body, iron is responsible for the manufacture of haemoglobin which carries oxygen in the blood etc.

List **two** sources of haem-iron.

- (i) liver, red meat,
- (ii) meat products, chicken, etc.

5. Name **two** food sources of **each** of the nutrients listed below suitable for a vegetarian. (6)

Nutrient	Source 1	Source 2
Protein	<i>soya bean, pulse vegetables, seeds &amp; nuts</i>	<i>quorn, TVP, tofu, dairy products, etc.</i>
Calcium	<i>dairy products, soya products, sesame seeds</i>	<i>green leafy vegetables, eggs, fortified flour, bread, cereals, etc.</i>
Vitamin B	<i>eggs, dairy products, cereals</i>	<i>yeast, dark green vegetables, fortified foods, etc.</i>

6. Name **three** classes of fruit and give **one** example of each class. (6)

Class of Fruit	Example
1. citrus,	1. oranges, lemons, limes, grapefruit, mandarins, etc.
2. hard / pomes	2. apples, pears, etc.
2. stone / drupes	3. plums, peaches, nectarines, cherries, avocados, etc.
Dried Berries Other (tropical, exotic)	<i>prunes, sultanas, currants, raisins, apricots, dates, etc.</i> <i>blackberries, blueberries, strawberries, raspberries, grapes, etc.</i> <i>bananas, kiwis, rhubarb, pineapple, melon, etc</i>

7. Explain the term *food additive*. (6)

*An additive is any substance natural or artificial added to a food during manufacture to improve its colour, taste, texture, appearance, keeping qualities, nutritive value, and to facilitate processing, etc.*

State **two** disadvantages of using additives in food.

- (i) *may cause allergies, aftertaste, deceive the consumer, cumulative effect*
- (ii) *hyperactivity in children, some additives destroy nutrients e.g. sulphur dioxide destroys Vitamin B*

8. Give **two** reasons why food production in small businesses and home enterprises is increasing. (6)

- (i) *growth in demand for speciality foods, creates employment and a skilled workforce, use of locally produced ingredients, provides a quality product, etc.*
- (ii) *greater product variety, additive free, food hand made with care, natural image, etc.*

Name **two** major Irish Food Exports.

- (i) *dairy and ingredients, beef / lamb / sheep / pig meat, poultry, fruit, vegetables,*
- (ii) *edible horticulture, mariculture / seafood, prepared foods, beverages, etc.*

9. Explain the term *PRSI*. (6)

Pay Related Social Insurance, compulsory deduction shared between employer and employee, based on percentage of individual's income, employees over 16 years of age must pay and then low paid are exempt from contributing, etc.

State **two** benefits of PRSI to the individual.

- (i) unemployment benefit / job seekers allowance, maternity benefit, contributory state pension  
 (ii) dental, optic, disability benefit, goes towards running employment & training schemes, etc.

10. Listed below are six properties of textiles. Tick (✓) **three** properties required when choosing textiles for household use. (6)

Properties	Tick (✓)
Durable	(✓)
Colourfast	(✓)
Irritant	
Windproof	(✓)
Flammable	
Absorbent	(✓)

11. Name **one** renewable energy source and **one** non-renewable energy source. (6)

Renewable Energy Source	Non-renewable Energy Source
<u>wind power, biomass, energy / solar power, hydropower, geothermal, nuclear, etc.</u>	<u>coal, gas, oil, peat, fossil fuel, uranium, coke, anthracite, etc.</u>

State **two** different methods of reducing energy consumption in the home.

- (i) fit lagging jacket on cylinder, insulate house, fit solar panels, fit timer to immersion heater, use CFL bulbs, switch off lights when not in use, use energy saving appliances, etc.  
 (ii) use thermostats & timers efficiently, keep heating systems & appliances serviced, purchase rechargeable batteries, do not leave appliances on stand by, etc.

12. Identify **two** factors that influence consumer choice when purchasing goods and services. (6)

- (i) cost / price, advertising, packaging & labelling, sales person  
 (ii) marketing, merchandising, personal choice / values etc.

Name **one** statutory body concerned with consumer protection.

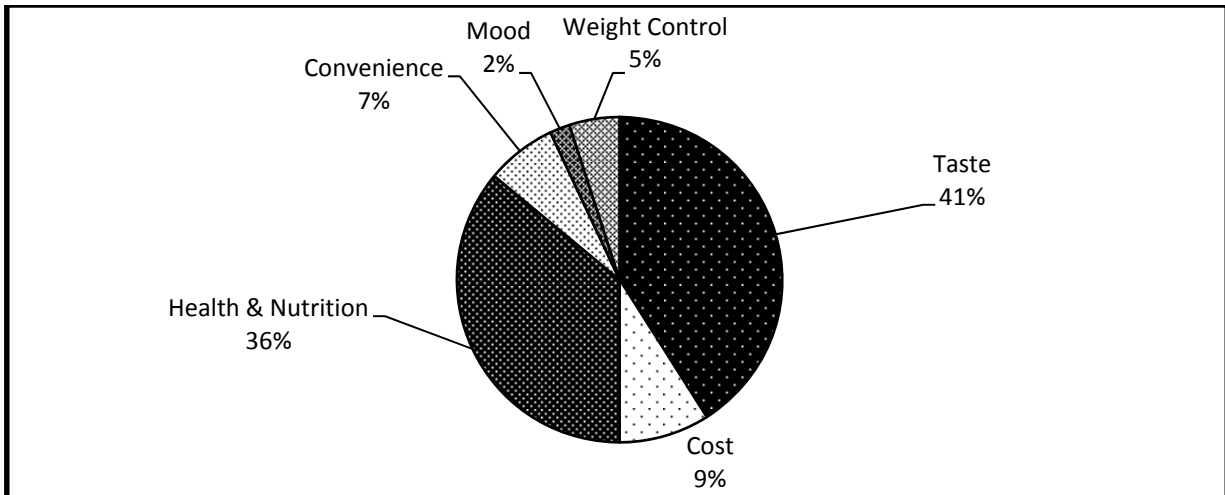
Statutory Body e.g. Office of Director of Consumer Affairs, Office of the Ombudsman, Comhairle, Citizens Information Board, National Standards Authority of Ireland, National Consumer Agency, European Consumer Centre, Employment Equality Agency, Financial Regulator, etc.

## 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. The National Adult Nutritional Survey (2011) asked participants to rank in order of importance to them six factors which affect food choice. The results are presented below. (*Irish Universities Nutrition Alliance*)



- (a) Using the information presented in the chart above comment on the six factors which affect a person's choice of food. (24)

**6 factors @ 4 marks each**

**Taste:** highest factor, role of the senses in choice of food, sight, smell, touch, sound, perceptions of food taste, promotion stands in supermarkets, culture, etc.

**Health & Nutrition:** second highest factor, consumers are nutritionally aware, people read food labels, increase in diet related disorders, allergies, specific dietary requirements, cooking methods, etc.

**Cost:** price wars, increased competition, reduced income, recession, stores like Lidl/Aldi, socio-economic background, disposable income, seasonality, etc.

**Convenience:** busy lifestyles, availability of convenience products, dash board dining, change in eating patterns, locality, type of work and hours worked, etc.

**Weight Control:** consumers who are more weight conscious tend to shop for more nutritious foods, increased levels of heart disease, cholesterol and obesity all weight linked, availability of low fat products, use of nutritious drinks, read labels for energy value, etc.

**Mood:** least important factor, humour can allow us make irrational food choices such as indulging in convenience / fast food, reward/comfort foods, irregular eating habits, etc.

- (b) Give an account of vitamin C under each of the following headings: (24)

- main food sources

**2 sources @ 4 marks**

**Fruit:** citrus fruits, strawberries, blackcurrants, rosehips, kiwi fruit, melon, etc.

**Vegetables:** green peppers, spinach, cabbage, Brussels sprouts, broccoli, peas, tomatoes, potatoes, etc.

Milk and yoghurt etc.

- biological functions

**2 functions @ 4 marks**

*e.g. production of collagen/production of connective tissue, absorption of iron and calcium, antioxidant, healthy immune system, prevention of scurvy, linked with manufacture of thyroxine, promotes healing of wounds, prevents bleeding gums, role in prevention of heart disease, etc.*

- effect of deficiency

**1 effect @ 4 marks**

*e.g. scurvy, delayed healing of wounds, anaemia, bruising and bleeding, individual more prone to illness and infections, blood may take longer to clot, arthritis, Parkinson's disease, skin ulcers, degeneration of eyes, etc.*

- role in mineral absorption.

**1 role @ 4 marks**

*e.g. vitamin C helps the body to absorb calcium, magnesium, and iron by converting dietary iron to a soluble form, non haem iron to haem iron, etc.*

- (c) Identify ways of retaining Vitamin C when (i) preparing **and** (ii) cooking foods with a high Vitamin C content. (12)

**3 ways @ 4 marks / one reference to each + one other**

**Preparation:** *eat raw where possible, choose good quality fresh produce, use a sharp knife and or vegetable peeler, prepare just before cooking, do not steep in water, etc.*

**Cooking:** *cook in the minimum amount of water for the minimum amount of time in a saucepan with a tight fitting lid, use the cooking liquid to make soup and sauces, avoid using bread soda, avoid overcooking, choose suitable cooking method e.g. steaming retains maximum amount of nutrients, stir-fry, use a microwave oven, cook frozen vegetables without thawing, etc.*

- (d) The following items of information are generally included on food packaging. Explain the benefit to the consumer of **each** item. (20)

**5 items @ 4 marks**

- list of ingredients

*e.g. people can avoid if allergic to any of the ingredients, ingredients are in descending order for people to know the quantity of the main ingredient, is food suitable for special dietary needs, (e.g. coeliac, vegetarian, etc.), additives (including flavourings and sweeteners) must be included, beverages with more than 1.2% alcohol by volume must display alcoholic strength, etc.*

- weight

*e.g. net quantity must be shown in metric units i.e. kilograms, eggs are graded according to size (e.g. size 1 = 70g +), to ascertain how many portions/servings the product will yield, to compare prices with other products of the same weight, etc.*

- nutritional information

*e.g. fortified food must be clearly labelled, claims on food must be true, (e.g. low fat butter contains 39% fat, has reduced salt, is gluten free, energy value of the food, nutrient content – starch, saturated and polyunsaturated fats), nutritional information supplied per serving or per portion, etc.*



- best before date

*e.g. this is used on non-perishable foods with a long shelf life, date should be clearly visible on the products, food bought will be at its best for consumption, can be less than 3 months, 3 – 18 months, 18 months + depending on the food, foods can be bought in advance and in bulk, etc.*

- country of origin.

*e.g. name and address of manufacturer, packager or seller within the E.U. the absence of which can mislead the customer, consumers may only want to purchase home produce, etc.*

## 2. ‘Cereals account for the major part of carbohydrate intake in the diet’.

- (a) Identify the main sources of cereals in the Irish diet **and** state why some people avoid / limit their intake of cereals. (20)

**3 sources @ 4 marks**

**Sources:** *bread, pasta, rice, breakfast cereals, maize, barley, rye, etc.*

**2 reasons @ 4 marks**

**Reasons:** *gluten cannot be digested by coeliacs, cause bloating, low GI diet, low carbohydrate diet, too much can cause weight gain, some cereals include hidden salt / sugars, etc.*

- (b) Give an account of the nutritive value of cereals. (15)

**3 points @ 5 marks**

*e.g. outer husk of cereal grains is high in fibre – aids digestion by stimulating peristalsis, protein (LBV), fat in germ, carbohydrate in form of starch, fibre in unprocessed cereals, vitamin B group, minerals – calcium, iron & phosphorus, etc.*

- (c) Explain *food fortification*.  
Comment on the increasing consumption of fortified food products. (15)

**explanation = 5 marks**

**Food fortification:** *the addition of nutrients e.g. vitamins and minerals to a food to replace nutrients lost in processing or to increase levels above those normally present in that food e.g. Vitamins A & D added to low fat milk, etc.*

**2 points @ 5 marks**

**Increased consumption:** *e.g. increase in diet related illness- food fortification attempts to address these e.g. folic acid to reduce incidence of NTD's, Vitamins A&D added to milk to prevent osteoporosis, food value of food increased, supports healthy eating habits, etc.*

**3. Adolescence is a time of rapid growth and development.**

- (a) Outline **four** factors that affect the dietary requirements of adolescents. (16)

**4 factors @ 4 marks**

*e.g. age, activity levels, gender – girls begin menstruation so iron is necessary to avoid anaemia, health status, pregnancy, “faddy” eating, etc.*

- (b) Having regard to current healthy eating guidelines and the specific dietary needs of adolescents, plan a menu (3 meals) for **one** day for a family with teenagers. (18)

**3 menu's @ 6 marks each**

*e.g. breakfast, lunch and dinner*

<b>Breakfast</b>	<b>Lunch</b>	<b>Dinner</b>
<i>Orange Juice</i>	<i>Cheese Salad Filled Brown Roll</i>	<i>Vegetable Soup</i>
<i>Muesli + Milk</i>	<i>Apple / Pear / Orange</i>	<i>Spaghetti Bolognese</i>
<i>Scrambled Egg on Toast</i>	<i>Water / Yop</i>	<i>Fruit Salad</i>
<i>Beverage</i>		<i>Water</i>

- (c) Discuss **four** changes in the eating patterns of Irish adolescents from the beginning of the twentieth century. (16)

**4 changes @ 4 marks**

*e.g. increase in consumption of convenience foods resulting in increase in additives, salt, saturated fat and sugar, low fibre intake, irregular meals, individual members of a family eating at different times, variety of foods have replaced traditional ones – rice and pasta instead of potatoes, increase in vegetarianism, wide range of breads e.g. ciabata and flavoured breads, different cooking methods e.g. microwave, stir-fry and barbecued foods, cooking skills, food scares, influence of other cultures through holidays, tv programmes, etc.*

4 'Budgeting has become an ever more important household task in recessionary times'.

- (a) Discuss **four** of the principle guidelines that should be followed when drawing up a budget for a family. (20)

**4 guidelines @ 5 marks**

*e.g. list all sources of income including salary/wages, social welfare benefits; list all items of expenditure to include fixed and seasonal expenditure, irregular and discretionary expenditure; draw up a budget allocating a percentage of income to each expense; do not include bonuses or overtime when calculating income, allow for savings, keep all receipts, plan for needs and essentials first e.g. mortgage / rent and household bills, make provision for savings long and short term, plan for emergencies, allow for changes in circumstances, review and evaluate regularly and make changes where needed, etc.*

- (b) Describe **four** different ways a consumer could reduce expenditure when managing the household budget. (12)

**4 ways @ 3 marks**

*e.g. make a list when shopping and stick to it, buy second hand/shop in charity shops, buy own brand products, buy food in bulk, use cheaper cuts of meat, make full use of the oven when cooking, use tiered steamers / saucepans when cooking e.g. potatoes and vegetables, use pressure cooker and / or microwave cooker, reduce heat thermostats, use clothes line instead of a tumble dryer, only turn on washing machine and dishwasher when full, etc.*

- (c) Outline **three** reasons why it is important for a family to save money **and** name **two** saving schemes suitable for a low-income family. (18)

**3 reasons @ 4 marks**

*e.g. reduce financial worries, give a feeling of security and independence, emergencies can be catered for, sets a good example for family members, avoids the necessity for loans / credit agreements, builds a sound financial reputation for the family, can earn interest if invested wisely, useful if planning for something e.g. holiday, etc.*

**2 saving schemes @ 3 marks**

*e.g. **An Post:** deposit account, instalment saving agreement (minimum monthly instalment 25.00 euros), saving certificates, saving bonds etc.*

**Banks & Building Societies:** demand deposit accounts, notice accounts, special term accounts etc.

**Credit Union:** demand deposit accounts, notice accounts, 2.00 euro saving stamps, etc.

5. (a)(i) Describe **four** functions of the modern family. (20)

**4 functions @ 5 marks**

**Physical Function:** reproduction – survival of the species, regulates sexual behaviour, nurturing – provision for the physical needs of the child, protection – safe environment for all family members including vulnerable members etc.

**Emotional:** love, security, provision of caring environment, help children to develop self-esteem, enable them to form healthy relationships, parents role models for children etc.

**Economic:** dual career families, parents work to provide money for the needs of family members, spend money on goods and services, contributes to the country's economy by paying taxes etc.

**Socialisation:** family teaches norms and values, children learn through observation and imitation, discipline, respect for society's values, norms and customs, etc.

**Education:** family primary source of education, praise, encouragement and interest aid this informal education period, stimulating environment, supports the work of the school by helping with homework, educational trips, etc.

- (ii) Give **two** examples of how the state provides support to parents in carrying out these functions. (8)

**2 examples @ 4 marks**

**Physical Function:** housing from local authorities, foster care, support services such as community mothers projects and family support projects, etc.

**Emotional:** parenting courses, social workers, counsellors, schools providing counselling services to students affected by family breakup or death of a parent, etc.

**Economic:** unemployment benefit, child benefit, FIS, one parent family payment, disability allowance, carer's allowance, OAP, medical card, etc.

**Socialisation:** nurseries, playgroups, mother & toddler groups, state has to deal with non-conforming individuals through the judicial system, etc.

**Education:** preschools, primary and secondary schools, support for those with learning difficulties, back to work schemes, psychological assessments to identify learning problems, etc.

- (b) Outline **three** changes in modern society that has affected gender roles in the family (12)

**3 changes @ 4 marks**

e.g. increased equality between men and women, men more involved in childcare by choice or because of unemployment in current recession, due to increase in one parent families greater responsibility on the remaining parent, education equally important for males and females, increased number of women working outside the home, some women are now the breadwinner in the family, etc.

- (c) Explain how the Family Law (Maintenance of Spouses and Children) Act, (1976) protects the family. (10)

**2 points @ 5 marks**

e.g. maintenance is financial support paid by a person for the benefit of a dependent spouse and dependent children, child must be under 18 yrs of age, or 23 yrs in full time education or a child with a disability, maintenance can be sought whether living with or apart from the other spouse or whether they are married to each other or not, maintenance can be agreed or application can be made to District or Circuit Court depending on amount, a court order will issue detailing amount, under this Act a court can order that a sum be deducted from the wages of the earning spouse and paid directly to the dependent spouse, this is known as an Attachment of Earnings Order, etc.

## Section C

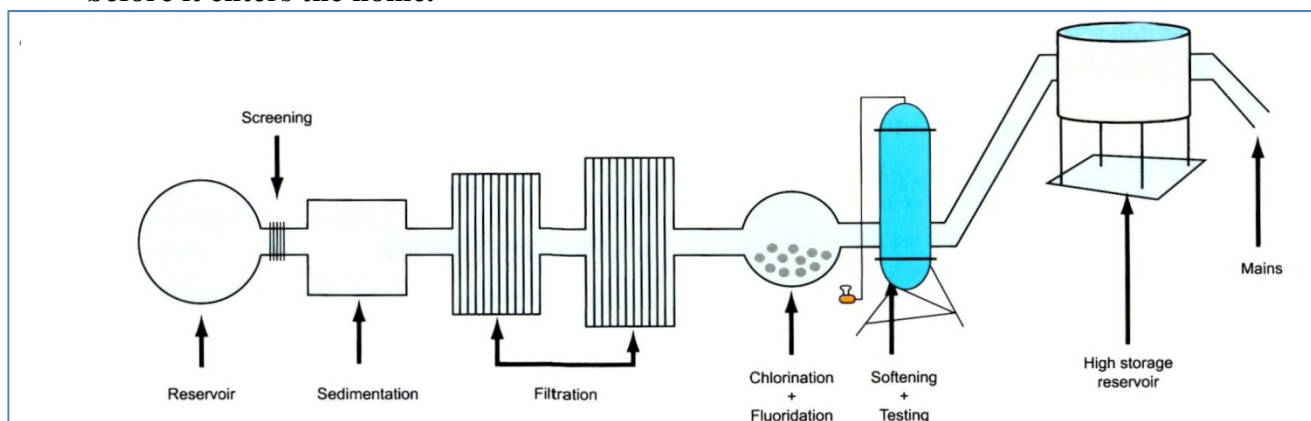
Answer one question from this section

Candidates who submitted Textiles, Fashion and Design coursework for examination may attempt only 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) The diagram below indicates the stages involved in the treatment of water before it enters the home.



- (i) Explain **four** of the stages involved in the treatment of water to make it safe for human consumption and domestic use. (20)

**4 stages @ 5 marks**

**Screening** – impurities in water such as floating debris are removed, etc.

**Sedimentation** – chemicals added to the water which attach to the dirt which sinks to the base of the tank, water is allowed settle so that soil and other solid matter can be removed, etc.

**Filtration** – water passes through filter beds of sand, gravel and stones to remove any excess matter / dirt, etc.

**Chlorination** – chlorine is added to kill bacteria etc.

**Testing** – water is tested for quality and pureness and stored in high storage reservoir, etc.

**Storage** – water is stored in a storage reservoir so that it cannot become impure, etc.

- (ii) In relation to the cold water supply system in a house, state the function of **each** of the following: (20)

**4 functions @ 5 marks**

- ball cock / valve

e.g. controls the level of water in the water tank in the attic or toilet cistern, allows correct amount into tank and prevents an overflow of water into house, etc.

- stop cock

e.g. is situated outside the house, water can be turned off in case of emergency or during repairs / flooding, or when the family go on holidays, a second stop cock may be found under kitchen sink, etc.

- overflow pipe

e.g. fitted from the water tank in the attic leading to the outside in case the ball cock / valve does not work etc.

- mains pipe.

e.g. water is transferred from the reservoir via a mains pipe bringing clean water to the house, manholes located at regular intervals for inspection etc.

- (iii) Describe **two** methods of reducing the amount of water used in the home (10)

**2 methods @ 5 marks**

*e.g. take a shower instead of a bath, stop tap running while washing teeth, plug the sink when washing hands/dishes, turn off/repair dripping taps, do not overfill the kettle, install mixer taps, fit cisterns with high and low volume flushes, avail of half load programmes on dishwashers and washing machines, hand wash small amounts of dishes rather than using the dishwasher, use tiered steamer when cooking Christmas puddings, potatoes, vegetables, etc.*

**and**

- 1(b) 'Planning permission is required for all building projects unless the type of development is exempt under planning regulations'.

- (i) Why is it necessary to obtain planning permission? (6)

**2 points @ 3 marks**

*e.g. proposed developments must all fit in with the local development plan, to avoid industrial factories being built in residential areas, to keep scenery and tourist attractions, to preserve old buildings, prevent houses being devalued, etc.*

- (ii) State the difference between outline and full planning permission **and** describe the procedure involved in obtaining full planning permission. (24)

**Difference: one point on each type @ 4 marks each**

**Outline Planning Permission:** *required to ascertain if the planning authority agrees in principle to the proposed development, no house plans are required just a site map showing the location and layout of proposed site, OPP has a three year duration, etc.*

**Full Planning Permission:** *requires in depth detail of the development i.e. details of plans, drawings, site layout maps, water supply and drainage, copies of public notices (newspaper and site), position of site notice, appropriate fee & details of materials to be used in construction, etc.*

**Procedure: 4 points @ 4 marks**

**Procedure for Full Planning Permission:** *submit site maps, house plans with all specifications including elevations, finishes and details of materials being used notice of application must be placed in the local newspaper and on the proposed site, application lodged in relevant local authority, relevant fee paid, application authority acknowledges receipt of same and places on planning register for public inspection, written objections lodged, site inspected, decision granted after two months, permission granted one month later, if permission refused applicants must be given the reason, appeals against the planning authority can be made to An Bórd Pleanála, etc.*

**or**

- 1(c) (i) Identify and discuss **three** factors that should be considered when planning the interior design of a house (15)

**3 factors @ 5 marks**

*e.g. space available, function of room, comfort, money available, costs-initial and maintenance costs, family size, energy efficiency, aspect of house/room, existing fixtures/fittings, personal choice, colour scheme, materials used, environmental awareness, etc.*

- (ii) Give a brief account of **three** safety considerations that should be taken into account when planning and fitting out a family bathroom. (15)

**3 considerations @ 5 marks**

*e.g. non slip flooring, good lighting – natural: window and skylights, artificial: central fitting and light over sink, no sockets in bathroom except for shaver, all switches should be operated by a pull cord or a switch outside the bathroom door, good heating system to avoid portable heaters being brought into bathroom, wheelchair accessible shower – wet room, grab rails, no mats etc.*

**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) Shown below is a traditional school uniform.**



(i) Comment on the suitability of the school uniform as shown above.

**6 points @ 2 marks each / 2 references to each heading**

Refer to:

- function

(12)

*e.g. can provide protection from the cold, rain, wind and sunshine, protect from injury, fire, infection and chemicals, cardigan for warmth, polo shirt can be used for class and PE wear, identification, shoes appear to be comfortable and practical, etc.*

- shape

*e.g. should suit figure of person wearing, full pleated skirt may not suit wide hipped people, separate garments cut small people and make tall people look smaller, trousers casual style, emphasis on shoulders, neckline, waist, etc.*

- proportion

*e.g. equal / unequal – knee length skirt with below waist cardigan, crest in proportion, neckline not too low on cardigan, neckline on shirt can be open or closed, etc.*

(ii) Suggest a suitable fibre for the school cardigan **and** give a reason for your choice. (6)

**Name: 3 marks**

**Reason: 3 marks**

*e.g. wool – soft, strong, absorbent, warm, resilient, comfortable to wear, etc.  
Acrylic – strong, does not stretch, easy to wash, quick drying, etc.*

(iii) Describe **one** method of applying a school crest. (7)

**Name: 3 marks**

**Description: 2 points @ 2 marks each**

*e.g. appliqué, embroidery, quilting, beading, embossing etc  
**appliqué:** decorative method of applying one fabric to another, the top fabric may be applied by hand or by machine, etc.*

**and**

**2. (b) ‘The successful combination of fashion and style is the main aim of the clothing industry’.**

- (i) Name **one** Irish designer and comment on his / her contribution to the fashion industry. (6)

**Name: 3 marks**

**Contribution: 3 marks**

*e.g. Louise Kennedy, John Rocha, Paul Costello, Lainey Keogh, Orla Kiely, Philip Treacy, etc.  
e.g. promote Irish clothing abroad and at home, to raise the industry’s profile, cater for all income groups, provide employment, create employment in Irish fabrics/fashion industry, etc.*

- (ii) Discuss the contribution of accessories to current fashion trends. (9)

**3 points @ 3 marks**

*e.g. contribute to the overall look, compliment the outfit, create a focal point e.g. a belt draws attention to waist and hips, scarves can add colour to a plain outfit, update an outfit, coordinated beads & bangles can help to finish off a look, etc.*

**or**

**2.(c) ‘A wide variety of commercial patterns are available to meet consumer needs’.**

- (i) Identify **three** factors that should be considered when selecting commercial patterns. (6)

**3 factors @ 2 marks**

*e.g. body measurements, correct size pattern, brand of pattern, buy pattern with a variety of garments – value for money, purchase pattern before fabric, person’s ability to use patterns – select accordingly, etc.*

- (ii) List the stages that should be followed when laying out a pattern on fabric. (9)

**3 stages @ 3 marks**

*e.g. follow the pattern instructions, pin the fabric together on open sides, place straight grain parallel to the selvage, pattern pieces to be placed to the fold should be placed exactly on the fold, be aware of nap on fabric, pattern on fabric e.g. lines, overall print, etc., keep fabric flat on a hard surface, etc.*



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

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

#### 3.(a) 'Social changes occur for a variety of reasons and have had a significant impact on family life in Ireland'.

(i) Discuss **two** effects of **each** of the following on family life in Ireland. (40)

- more people living in urban areas

**2 points @ 5 marks**

*e.g. more services and amenities available, entertainment and leisure facilities are more accessible, increase in noise & air pollution, traffic congestion, education & health services may be inadequate due to population growth, unemployment black spots, social problems, etc.*

- changing attitudes to marriage

**2 points @ 5 marks**

*e.g. decreasing influence of the Church, breakdown in traditional family, increase in single parents, children may not have a male/female role model, fewer marriages, more people choose to cohabit, divorce and marital breakdown more socially acceptable, no longer stigma attached to children born outside marriage, children must adapt to blended families, women better educated and capable of following their own careers – less dependent on spouse / partner, etc.*

- changing attitudes to parenting

**2 points @ 5 marks**

*e.g. more democracy in families, children have a greater say in family matters, paternity and parental leave acknowledge the role of the father as well as the mother, provision of day care facilities in the workplace, paid maternity leave, option of flexitime or job sharing to encourage women to remain at work, leniency and too much freedom as well as lack of parental supervision is often seen as a factor in increasing social problems, etc.*

- improvements in the provision of social welfare.

**2 points @ 5 marks**

*e.g. child benefit has reduced the incidence of child poverty, old age pensions, living alone allowance, fuel allowances help to alleviate hardship for elderly, family unit feels less responsible for retired, disabled, unemployed or widowed since introduction of social welfare, one parent families, widowed or lone parents can receive state benefits, families on low income can avail of FIS and Back to School clothing and footwear allowance, etc.*

(ii) Name **and** give details of **one** initiative that helps maintain the population in rural areas. (10)

**Name: = 4 marks, Details 2 points @ 3 marks**

*e.g. redeployment of government departments and state agencies to rural locations.  
rural resettlement schemes*

*IDA – responsibility of securing investment from overseas, encourages existing investors to expand and develop their business in rural areas etc.*

*Fás /Solas – provides community based employment, training programmes in areas such as childcare & horticulture etc. help people gain experience to further training or employment, offers training for minority groups, provides up skilling, payment while training etc.*

*Enterprise Ireland – develops and promotes Irish business at home and abroad, helps companies to build markets, increase sales and employ more people etc.*

*County Enterprise Boards – support small businesses at local level, offer advice, mentoring, and financial assistance in form of grants, encourages job creation and the maintenance of sustainable jobs, cottage industries, co-operatives, etc.*

*Job Start, Improved infrastructure – roads, telecommunications etc.*

and

**3.(b) ‘Work occupies a larger part of life than any other single activity’.**

- (i) Identify **and** discuss **four** of the key reasons why people work. (20)

**4 reasons @ 5 marks**

*e.g. people have a right to work, financial independence, raise standard of living, status, save money for houses, cars, college etc., assist parents to pay for basic needs, school fees, bills etc., peer pressure, understand adult working role, own money allows them to make personal consumer choices, job satisfaction, sense of achievement, make use of qualifications, keeps people occupied, socialisation, etc.*

- (ii) Outline the protection provided by the Protection of Young Persons (Employment) Act, (1996). (10)

**2 points @ 5 marks**

*e.g. applies to all employees under eighteen years of age, sets out working conditions – hours, age limits and rest periods, employment of under 16’s in full-time position is prohibited, 14 & 15 year olds may be employed for ‘light’ work during school holidays or term time or work experience, 14 & 15 year olds may work maximum 35 hours a week, 16 – 18 years may work up to a maximum 40 hours a week, under 18 years cannot be required to work after 10pm, employers must obtain copy of birth cert if employee is under 18 and needs written permission from parents / guardian if employee under 16 years, employers who breach this legislation may be prosecuted and fined, etc.*

or

**3.(c) ‘Improvement of student achievement has always been one of the main goals of education’.**

- (i) Name and give details of **two** education programmes designed specifically to help retain young people in second level education. (18)

**Name: 2 programmes @ 4 marks each**

**Details: 2 points @ 5 marks each / 1 referring to each programme**

**Programmes: School Completion Programme** – reduces number of students from leaving school early, extra teaching hours provided, absences monitored, breakfast and lunch clubs to ensure students eating balanced meals, after school homework clubs, each school involved must develop a retention plan specific to its needs, an induction plan for first years are all key parts of this initiative, etc.

**Leaving Cert Applied** – prepares students for work, modular programme, students assessed over two year period with written, oral, interviews and assessments of student tasks, etc.

**Other programmes include: Youthreach, LCVP, Transition Year and JCSP etc.**

- (ii) State **two** benefits to the student of **each** programme named. (12)

**4 benefits @ 3 marks each / 2 for each programme**

**Benefits:** socialisation continues enabling persons to fit into and be accepted by society, contributes to emotional development and sensitivity to the needs of others, peers and exams can provide challenges and competition, self esteem increases, encourages self development, sense of achievement, teaches life skills and skills applicable to adult working life, work experience facilitates links in the community and businesses and gives students practical experience of certain careers and courses suited to individual needs and may be a source of further employment, etc.



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

# **LEAVING CERTIFICATE 2012**

## **MARKING SCHEME**

### **HOME ECONOMICS – SCIENTIFIC AND SOCIAL FOOD STUDIES COURSEWORK**

**(400 Marks / Weighted Mark 80)**  
(To calculate weighted mark-divide the raw mark by five)

# Food Studies Practical Coursework General Marking Criteria

## **Investigation: Analysis/Research - 30 marks**

### **Research and analysis**

**= 20**

#### **Band A 16-20 marks (very good – excellent)**

##### *Investigation*

- shows evidence of a **thorough exploration** and **comprehensive analysis** of all the issues and factors directly relevant to the key requirements of the assignment
- is accurate, derived from a range of sources and presented coherently
- uses evidence from research as basis for making relevant choices in relation to selection of menus/dishes/products

#### **Band B 11-15 marks (very competent – good)**

##### *Investigation*

- shows evidence of **exploration** and some **analysis** of the issues and factors which are generally relevant to the key requirements of the assignment
- is accurate, derived from a range of sources and presented coherently
- uses evidence from research as basis for making relevant choices in relation to selection of menus/dishes/products

#### **Band C 6-10 marks (basic to competent)**

##### *Investigation*

- shows evidence of **exploration** of the issues and factors which are generally relevant to the key requirements of the assignment
- is reasonably accurate, derived from a range of sources and presented coherently
- uses evidence from research as basis for making choices in relation to selection of menus/dishes/products

#### **Band D 0-5 marks (very basic – limited)**

##### *Investigation*

- shows evidence of a **very basic and limited understanding** of the key requirements of the assignment
- some or all of the information is vague and accurate only in parts, presentation lacks coherence
- uses evidence from research as basis for making choices in relation to selection of menus/dishes/products

### **All Assignments. - 2 two course meals / 2 dishes / 2 products / menu for day**

**= 4**

#### **If dish prepared is not investigated -1 / -2 marks in Investigation.**

*(menu – starter/desert = 1 mark, main course = 1 mark)*

*suitable meals / dishes / products having regard to factors identified and analysed in the investigation*

### **Menus/main course/dishes must be balanced – accept 3 out of 4 food groups**

#### **Reasons / selection criteria - (2 x 2 marks)**

**= 4**

*clearly indicates criteria that determined choice of dish or product selected to prepare.*

#### **Sources including source of recipe - 2 x 1 mark (2 marks)**

**= 2**

## Preparation and Planning - 6 marks

- Resources (ingredients incl. costing, equipment) = 3
  - *main ingredients, unit cost, key equipment used as determined by dish*  
(expect cost for all except AOP E)
- Time allocation / Work sequence = 3
  - Preparation, sequence of tasks, evaluation
  - Band A 3 marks - all key steps identified, correct sequence*
  - Band B 2 marks - some key steps identified or sequence incorrect*
  - Band C 1 mark - few key stages identified and sequence incorrect*

## Implementation - 28 marks

- Outline of the procedure followed to include preparation, food preparation processes, cooking time /temperature, serving /presentation, wash-up, tasting/evaluation. = 16  
(Information / account should be in candidate's own words)

### **Band A 13 - 16 marks (very good – excellent)**

*All essential stages in preparation of dish identified, summarised and presented in candidate's own words, in correct sequence with due reference to relevant food preparation process/es used*

### **Band B 9 -12 marks (very competent – good)**

*Most essential stages in preparation of dish identified, summarised and presented in correct sequence with due reference to relevant food preparation process/es used*

### **Band C 5 - 8 marks (basic to competent)**

*Some essential stages in preparation of dish identified, summarised and presented in correct sequence with due reference to relevant food preparation process/es used*

### **Band D 1-4 marks (very basic – limited)**

*Few or any essential stages in preparation of dish identified, summarised and presented in sequence with due reference to relevant food preparation process/es used*

- **Key factors considered** (must relate to specific dish / test) **2 x 4 marks** = 8  
*Identification (2) and clear explanation of importance (2) of two factors considered which were critical to success of dish*

- **Safety/hygiene** **2 x 2 marks** = 4  
(must relate to specific ingredients being used / dish being cooked)  
*Identification (1) and explanation (1) of **one** key safety issue and **one** key hygiene issue considered when preparing and cooking dish/conducting test*

## Evaluation - 16 marks

Evaluate the assignment in terms of:

- **Implementation** **2 x 4 marks each** = 8

*Band A -4 marks - identified and analysed specific weaknesses/strengths in carrying out the task, modifications, where suggested, were clearly justified, critical analysis of use of resources / planning*

*Band B- 3 marks - identified weaknesses / strengths in carrying out task, some justification of proposed modifications, limited analysis of use of resources / planning*

*Band C- 2 mark - some attempt made at identifying weaknesses **or** strengths in completion of task, modifications where suggested not justified, reference made to use of resources / planning*

- The **specific requirements** of the assignment **2 x 4 marks each** = 8
  - Band A 4 marks - draws informed conclusions in relation to two key requirements of the assignment*
  - Band B 3 marks - draws limited conclusions in relation to two key requirements of the assignment*
  - Band C 2 mark - summarises two outcomes in relation to the assignment*

## Area of Practice A – Application of Nutritional Principles

### Assignment 1

*As people grow older, it is important that their changing dietary and nutritional needs are considered when planning meals.*

Research and elaborate on the nutritional needs and the meal planning guidelines that older people should consider when planning meals.

Bearing in mind these considerations, investigate a range of menus (two courses) suitable for the main meal of the day for this group.

Prepare, cook and serve **one** of the main courses that you have investigated.

Evaluate the assignment in terms of **(a)** implementation and **(b)** the specific requirements of the assignment.

#### **Key requirements of the assignment**

- *dietary/nutritional needs that **older people** should consider when planning meals*
- *relevant meal planning guidelines with specific reference to **older people***
- *range of menus for main meal*
- *main course dish and reasons for choice.*

#### **Investigation**

**Dietary / nutritional requirements** – *nutritional balance, daily requirements of macro / micro nutrients including protein / cho / fat / iron / calcium requirements as appropriate to the needs of older people with reasons for possible variations, high fibre, Vitamin C / iron absorption, Vitamin D / calcium absorption, need to increase B6, B12, and folate due to low intakes and malabsorption, possible variations in energy requirements – older people tend to be less active so need fewer calories as they have a lower BMR rate, energy balance vis a vis activity levels, current nutritional guidelines re nutrient and food intake, use of meal supplements e.g. drinks – Ovaltine, Milo, Ensure, etc.*

**Meal planning guidelines** – *use of food pyramid to ensure balance, variety of foods, personal likes and dislikes, correct fluid intake to prevent dehydration - 8 glasses of fluids per day, high fibre foods, increase calcium, avoid foods high in salt, saturated fat and sugar i.e. convenience foods, if choosing convenience foods chose fortified foods, healthy snacks, easily digested foods, use of foods in season – resource issues, smaller portions, consider easy to eat / chew foods for older people with dental problems, physical limitations e.g. arthritis, use of pre-prepared / easy to prepare foods, medical conditions may influence foods eaten, sensory changes – taste for food may change, medicines do not mix with all types of foods, they can affect the absorption and metabolism of nutrients, anti-inflammatory drugs cause stomach upsets, use of milk powder to boost calcium, protein and calorie content, etc.*

#### **Dishes selected – range of menus for main meal**

- **must be suitable for older people**
- **must be a main course.**

#### **Evaluation (specific requirements of assignment)**

*Analysis of findings regarding the nutritional requirements of main course dishes for older people.*

*Meal planning guidelines – range of main course dishes suitable for older people, how the selected dish meets the requirements as identified in the investigation.*

## Assignment 2

***Research shows that childhood obesity has reached epidemic proportions in Europe, with body weight now the most prevalent childhood disease..... the number of children who are significantly overweight has trebled over the past decade.***

***(Report of the National Taskforce on Obesity 2005)***

With reference to this statement, investigate and elaborate on the dietary practices, the nutritional needs and the factors that should be considered when planning meals for school-going children in order to maintain a healthy weight.

Having regard to the factors identified in your research write a menu (three meals) for **one** day, that includes a packed lunch, suitable for school-going children. Prepare, cook and serve the main course of the main meal of the day.

Evaluate the assignment in terms of **(a)** implementation and **(b)** the specific requirements of the assignment.

### **Key requirements of the assignment**

- ***nutritional requirements for school going children in order to maintain a healthy weight***
- ***dietary practices/meal planning guidelines for school children in order to maintain a healthy weight***
- ***menu for one day (three meals) that includes a packed lunch***
- ***chosen main course dish and reasons for choice.***

### **Investigation**

**Nutritional requirements** - *nutritional balance, daily requirements of macro / micro- nutrients including protein / cho / fat / iron / calcium requirements as appropriate, high fibre, Vitamin C / iron absorption, Vitamin D / Calcium absorption, increase phosphorus intake, follow current nutritional guidelines re nutrient and food intake with particular reference to requirements for school going children, appropriate energy balance, etc.*

**Dietary Practices/Meal planning guidelines** – *use of food pyramid to ensure balanced meals, establish pattern of eating three regular balanced meals each day starting with a good breakfast, parents should give good example – be a role model for healthy eating, appropriate portion size, use vegetables/ healthy snacks instead of sweets as a reward for positive behaviour, make vegetables interesting to eat – cut into different shapes, cut down/avoid processed, snack and empty kilo calorie foods, avoid refined carbohydrate foods and replace with wholemeal products, mix in good foods with ‘junk’ foods slowly and progressively, select foods with low GI (glycemic index), choose poultry, white fish, lean meats, cut fat off meats, avoid foods with hidden fats i.e. cakes, biscuits, pastries etc. replace with a variety of fruit and vegetables, avoid unhealthy cooking methods e.g. grill instead of frying, steam, boil or bake all foods, drink water and natural fruit juices instead of fizzy drinks, avoid foods high in salt, sugar and saturated fat, make vegetable and fruit drinks, substitute fruit for sweets, get children involved in shopping and preparing food, serve new foods with favourite foods, plan healthy meals/lunches that are quick to eat as children may be in a rush, etc.*

**Dishes selected – menu for one day (three meals) that includes a packed lunch**

- **should meet the nutritional requirements as identified for school going children in order to maintain a healthy weight**
- **must be a main course**

### **Evaluation (specific requirements of assignment)**

*Analysis of findings regarding what you learned from the investigation regarding the management of a diet for school going children in order to maintain a healthy weight, factors that should be considered when planning meals for school going children who wish to maintain a healthy weight, and to ensure nutritional adequacy, what foods are suitable/unsuitable, what special aspects of meal planning have to be considered etc., how the selected dish meets the requirements as identified in the investigation.*

## Area of Practice B – Food Preparation and Cooking Processes

### Assignment 3

***Electric food mixers and hand blenders are essential items of kitchen equipment for many cooks.***

Select either an electric food mixer **or** an electric hand blender and research

- the different types available (brands, prices, features, etc.)
- uses i.e. different functions of the piece of equipment
- dishes / foods that can be prepared using this item of equipment
- the key points essential to making a dish using this equipment.

Prepare, cook and serve either a soup **or** a dessert that you have investigated using the selected item of equipment. Evaluate the assignment in terms of **(a)** implementation, **(b)** the advantages and or the disadvantages of using the selected item of equipment.

#### Key requirements of the assignment

- *research on the different types of electric food mixers or electric hand blenders (brands, prices, features etc.)*
- *uses i.e. different functions of the item of equipment selected and the dishes / foods that can be prepared*
- *the key points essential to making a dish using this equipment*
- *chosen dish soup or dessert and reasons for choice.*

#### Investigation

**Brands of electric food mixers /electric hand blenders available:** Kenwood, Moulinex, Philips, Bosch, Gordon Ramsey, Russell Hobbs, James Martin, Ready Steady Cook, etc.

**Electric food mixers (Free standing, hand held, combination, food processors) - Wattage:** 120 –1200 watts; **Speeds:** 1- 12; **Cost:** €6 - €500; **Special Features** – variable speed control, turbo speed / boost button, chrome finish, soft touch handle / easy grip, easy to clean stainless steel bowl, bowls up to 5 litres, beaters, hooks and whisks, flexible beater tool, K-lene coated(non stick), removable mixer head can be used as hand mixer, splash / pour guard, load sensing technology, timer, automatic bowl scraper, over load cut out, cord storage, dishwasher safe, cordless, swivel cord to use with each hand etc. **Attachments** – whisk – balloon & power, beaters and dough hook, liquidiser, shredder, pasta maker, fruit press, ice cream maker, juice extractor, spatula, dust cover etc. **Bowl Capacity:** up to 6.7 litres, etc.

**Uses: Beater:** creaming fat and sugar in cake making etc. **Whisk:** whisking cream, meringues and batters etc.

**Hook:** making bread and pastry, etc.

**Dishes / foods** that can be prepared using electric food mixer e.g. cakes – sponge, maderia, etc, biscuits, pastry, stuffings, crumbing, icings, mashing vegetables, batters, whipping cream, meringues, etc.

**Key points essential for the successful use of electric food mixer:** use the correct attachment for the mixture, do not exceed the maximum capacity or you will overload the motor, lock bowl in place before starting mixer, use a slower speed to start and when adding dry ingredients, have fat at room temperature, use the splashguard to keep foods like icing sugar and flour contained during mixing but make sure it is removed before whisking so the air can circulate freely, stop and scrape mixture from sides of bowl when mixing, make sure beaters are in mixture before turning on, mixers with smaller motors cannot be left running for too long, clean after use, do not use attachments e.g. liquidiser at the same time as beating, etc.

**Hand blender:** **Wattage:** 220 – 800 watts; **Speeds:** 1 – 16; **Cost:** €6 - €90; **Special Features** – pulse function, turbo button for tough ingredients, anti splash blade guard, detachable stainless steel blades and shaft, soft grip handle, safety cap, easy to clean plastic casing, automatic cut off if overheating occurs, cordless, accessories dishwasher safe etc. **Attachments** – plastic beaker, chopper, whisk, metal / plastic wand and three blade system, masher, ice crusher, extra large pan blender for blending soups directly in saucepan, etc.

**Uses:** blending, chopping, whisking, mashing, frothing, etc.

**Dishes / foods** that can be prepared using electric hand blender e.g. soups, sauces / gravies, fruit & vegetables - smoothies, bread crumbs for stuffings, toppings for meat & fish, almonds, pates, etc.

**Key points essential for successful use of hand blender:** do not immerse the motor in liquid, do not touch blades when plugged in, if the blades get stuck unplug the appliance before you remove the ingredients that block the blades, cut large ingredients into small pieces, immerse the blade completely into ingredients before turning on, switch off the appliance before you remove from liquid, blending or before changing attachments, do not exceed the quantities and processing times in instructions, use correct proportion of solids and liquids, allow appliance to cool down between/before continuing processing, do not use blender for meat, cheese, etc.

**Dishes selected – must be a soup or dessert from research suitable for preparation using the electric food mixer or electric hand blender**

**Evaluation** (as specified in assignment) - advantages and or disadvantages of using an electric food mixer **or** electric hand blender.



## Area of Practice C: Food Technology

### Assignment 4

*Chutneys and relishes are made from a combination of fruit and vegetables with vinegar, sugar, spices, salt etc. They are an excellent way of using up a surplus of fruit and vegetables, particularly as the flavour improves with storage.*

Investigate (i) the different fruits and vegetables that can be preserved in this way

(ii) how this method of preservation is carried out

(iii) the underlying principles involved

(iv) the possible problems which may arise.

Using your choice of fruit/vegetables, prepare and pot a chutney or relish. Include details of the container and the labelling you used.

Evaluate the assignment in terms of (a) implementation, (b) practicability of making home made chutneys/relishes.

### Key requirements of the assignment

#### Investigate:

- *the different fruits and vegetables that can be preserved to make chutneys/relishes*
- *how the method of making chutney /relishes is carried out*
- *the underlying principle involved*
- *the possible problems that may arise*
- *details of container, cover and labelling*
- *chosen product and reasons for choice*

### Investigation

Research different fruit and vegetables that can be preserved to make chutney/relishes:

**Fruit** – *apples, pears, apricots, plums, gooseberries, green mangos, nectarines, cranberries, blackberries, dates, rhubarb, bananas, raisins, sultanas, damson, pumpkin, coconut, papaya, pineapple etc.*

**Vegetables** – *red & green tomatoes, green & red peppers, marrows, onions, white cabbage, garlic, beetroot, corn kernels shallots, chillies, etc.*

### How the method of making chutney/ relishes is carried out:

*Fruit and or vegetables are washed, peeled and chopped, simmered in saucepan until soft, sugar is dissolved in mixture, brought back to boil, all other ingredients are added, simmered until thick, potted, covered, labelled and stored in a cool dark place for at least one month to develop flavour, ingredients for relishes are cut into larger pieces as they have a chunkier texture, sugar & vinegar preserve them and give the characteristic sweet-and-sour flavour, long cooking of sugar darkens the colour, relishes are cooked for shorter length of time, spices that are aromatic, mild or hot and pungent are used, spices mellow with age and so chutneys benefit from being left for a couple of months before been eaten, relishes are fresh-tasting while chutneys have a more mellow flavour, brown malt vinegar/brown sugar gives a better colour than white vinegar/white sugar, etc.*

**Underlying principles involved** – *chutney/relish using a mixture of fruit and or vegetables is boiled to 100°C, destroys micro-organisms and lowers available moisture needed for growth, preserved by use of vinegar, salt & spices, vinegar reduces the pH of the food with the natural acids of the fruit and provides conditions unfavourable for micro organisms to grow, liquid passes from the micro-organisms by osmosis to the food in an attempt to correct the imbalance, dehydrates the micro-organisms, thus destroys them, high concentration of sugar causes water to pass out of bacterial cells by osmosis, sugar salt & spices act as preserving agents also, heat denatures enzymes, etc.*

**Possible problems that may arise**

*If chutney is not boiled for long enough it may have a runny consistency, vinegar can have a hardening effect, chutney should be cooked at a low heat until the sugar is dissolved, boiled for too long/too short a time will result in chutney that has a dark/light colour, chutney must be stirred during cooking to prevent it sticking to bottom of saucepan and to prevent 'caking', heat jars to avoid breakage when hot chutney is added, do not allow metal lids to be in contact with product as the metal will react with vinegar and cause discolouration and poor flavour, shrinks / dries out if not sealed properly, liquid on top of jar if chutney has not been cooked sufficiently, etc.*

**Suitable containers and labelling for chutney/relishes** *e.g. glass jars, screw top lacquered / plastic coated lids, vinegar proof paper, freezer bags, greaseproof paper with circle of cotton dipped in wax or fat, labels, etc. If no packaging investigated – 3 marks*

**Dishes selected – chutney or relish using fruit/vegetables.**

**Evaluation** (as specified in assignment) *Practicability of making homemade chutneys and relishes – resource issues – time, skills, equipment, packaging, storage, availability of ingredients, cost factors, etc.*

## Area of Practice D – Dishes illustrating the Properties of a Food

### Assignment 5

**Eggs have a wide variety of culinary uses attributable to their properties.**

Carry out research on the properties and the related culinary uses of eggs, explaining the principle involved in each case. Identify dishes that illustrate the use of each property. Prepare, cook and serve one of the dishes that you have investigated, which has eggs as a key ingredient.

Evaluate the assignment in terms of **(a)** implementation and **(b)** success in applying the selected property/properties when making the dish.

#### **Key requirements of the assignment**

- identify 3 properties of eggs and explain the related principles
- identify related culinary uses of each property and dishes that illustrate use
- chosen dish and reasons for choice.

**Properties of eggs:** *coagulation, aeration / foam formation, emulsification.*

**Principle of each property, culinary uses and dishes that illustrate each property:**

**Coagulation:** *protein in eggs sets in cooking, proteins in the white coagulate between 60°C and 65°C causing the egg white to become opaque and solid, proteins in the egg yolk coagulate between 65°C and 70°C, coagulation causes the protein chain to unravel, straighten and bond together around small pockets of water, curdling can be caused by the addition of too much heat too quickly or for too long a time, eggs should be well beaten to combine white and yolk so one does not set quicker than the other, etc.*

**Culinary application/dishes:** **Cooking:** *boiled, poached, fried or scrambled eggs etc.* **Thickening:** *omelettes, custards, etc.* **Coating:** *fish, chicken, etc.* **Binding:** *burgers, fish cakes, etc.* **Glazing:** *apple tart, scones, etc.* **Clarifying:** *consommé, jellies, etc.*

**Aeration / foam formation:** *egg protein can trap air and produce a foam, whisking egg whites introduces bubbles of air into mixture, whisking also produces heat to coagulate albumin slightly, protein chains unravel, straighten and line up around the air bubbles, form a thin layer around the bubbles and the mixture becomes stiff, formation of a temporary white foam, in cooking coagulation of the protein chains occurs and sets the foam permanently or it will collapse, gelatine can be used to set the foam, etc.*

**Culinary applications/dishes:** *meringues, soufflés, cheesecake, mousse, sponge cakes, etc.*

**Emulsification:** *egg yolk contains lecithin an emulsifying agent, when lecithin is added to liquids e.g. oil and vinegar that are immiscible, the two liquids are held together in an emulsion, lecithin surrounds the droplets and prevents them separating, emulsifier lecithin consists of hydrophilic(water loving) head & hydrophobic(water hating) tail, hydrophilic part attracted to the water(vinegar) part, hydrophobic part is attracted to the oil part, holds the two liquids together and prevents them from separating, oil-in-water emulsion (mayonnaise), etc.*

**Culinary applications/dishes:** *mayonnaise (oil, egg & vinegar), hollandaise sauce (vinegar & butter), cake making (sugar & fat), ice cream, etc.*

**Dishes selected – must illustrate a culinary application of a property investigated.**

**Evaluation** (as specified in assignment)

*Success of the property / properties selected when making the dish.*

## Area of Practice E: Comparative Analysis including Sensory Analysis

### Assignment 6

#### ***Salted crisps are a predominant part of the snack food market.***

Investigate the range of salted crisps available (i.e. types, brands, flavours, etc.)

Purchase **two** different brands of salted crisps. The crisps should be the same variety/type and flavour but contain different amounts of salt. Using a directional paired comparison test, compare the crisps in terms of saltiness.

Evaluate the assignment in terms of **(a)** implementation and **(b)** the test results obtained (i.e. an analysis of the factors that may have contributed to the test results obtained).

#### **Key requirements of the assignment**

- *research on the range of salted crisps available (i.e. types, brands, flavours, salt content etc.)*
- **directional paired comparison test** (description, aim and possible outcomes)
- *conditions to be controlled during testing*
- *selected crisps and reasons for choice.*

#### **Investigation**

- Research / Investigation of products appropriate to the testing  
*i.e. investigate the range of salted crisps available (i.e. types, brands, flavours, etc.).* = 20
- **Directional paired comparison test**

**Description:** *tester is presented with two coded samples, tester is asked to determine which of the samples has a greater degree of intensity in terms of saltiness etc.*

**Aim of test:** *to determine which of the two samples of crisps is saltier*

**Possible outcomes:** *determine which of the crisps is the saltiest.*

#### **Identification of the conditions to be controlled during the testing**

*Conditions specific to the assignment e.g. size, shape and colour of containers used for testing, similar quantities in each sample, coding of samples, hygiene, timing, where testing takes place, dietary considerations, understanding of the meaning of saltiness, etc.*

- **Selected dish/product and selection criteria**

*Selected crisp products.* (2 products @ 2 marks) = 4

*State reasons for choice.* (2 reasons @ 2 marks) = 4

**Sources – 2 x 1 mark (2 marks)** = 2

#### **Preparation and Planning**

- **Resources** = 3

- **Main equipment needed to carry out assignment**

**Directional paired comparison test** – *tray, glass of water, crisp products, containers with samples of food A and food B, scorecards, record sheets, pen, etc.*

**Work sequence** = 3

**Directional Paired Comparison Test:** *code containers, label score cards and record sheet, set up trays, carry out directional paired comparison test, collect scorecards, transfer results onto record sheet, reveal codes present and evaluate results, tidy and wash up, etc.*

## Implementation

= 16

### Procedure followed when carrying out this aspect of the assignment

*The full sequence of implementation should be given and findings should be presented for the test etc.*

### Directional Paired Comparison Test (two products)

*Testers should not be involved in setting up test. Code containers with symbols – one with symbol □ and one with symbol ○, set up trays with coded containers, glasses of water, arrange two different brands of crisps in coded containers, present samples in random order on each tray, follow instructions on score card, taste order should be specified on scorecard, collect cards and transfer results of each tester in group onto record sheet, count correct responses, reveal codes, present and evaluate results, tidy, wash up, etc.*

- **Key factors considered (any 2 @ 4 marks each)**

= 8

*Key factors that may be considered in order to ensure success in this assignment include - conditions **controlled** during testing ... coding, choice of crisps, degree of doneness, uniformity of samples for testing, sufficient amounts, glass of water/or dry cracker included to cleanse the palate, importance of silence during testing, taste order, random order presentation, etc.*

*(key factors must refer to the actual test carried out)*

- **Safety and hygiene (one safety @ 2 marks + one hygiene @ 2 marks)**

= 4

***Safety:** testers with allergies – nuts, special diets e.g. celiac, set-up of test area etc.*

***Good hygiene** practice with regard to: preparation area and the testing area, handling of samples – use of plastic gloves / disposable glasses, etc.*

## Evaluation

- **Implementation (2 points x 4 marks each)**

= 8

*Testing procedures used*

*Key factors when conducting the test*

*Safety and hygiene issues considered*

*Problems encountered and suggested solutions*

*Evaluate efficiency of work sequence*

- **Specific requirements of the assignment (2 points x 4 marks)**

= 8

*Test results obtained, factors that may have contributed to the test results obtained etc.*

**Band A = 4 marks**

**Band B = 3 marks**

**Band C = 2 marks**

## *Appendix 1*

### *General Instructions for examiners in relation to the awarding of marks.*

1. Examination requirements:  
Candidates are required to complete and present a record of **five** assignments for examination.  
In respect of **Areas of Practice**, candidates must complete  
Area A - **One** assignment  
Area B - **One** assignment  
Area C - **One** assignment  
Area D - **One** assignment  
**One** other assignment from either Area A or Area E  
Where a **candidate completes five assignments and does not meet the examination requirements** as set out above, the examiner will mark the five assignments as presented and disallow the marks awarded for the assignment with the lowest mark from AOP A or E
  2. Each Food Studies assignment must include different practical activities.  
Where a **candidate repeats a practical activity for a second assignment**, the examiner will mark the repeated practical as presented and disallow the marks awarded for the repeated practical activity with the lowest mark.
  3. Where a **candidate completes the investigation and / or the preparation and planning and / or the evaluation aspects of an assignment and does not complete the implementation**, the examiner will mark the completed aspects of the assignment as presented. However, marks for **evaluation of implementation**, where attempted, will be disallowed.  
In relation to Assignments 3, 4, 5 and 6 **evaluation of specific requirements** will also be disallowed
  4. Where a **candidate completes the preparation and planning and/or the implementation and /or the evaluation aspects of an assignment, and does not complete the investigation**, the examiner will mark the completed aspects of the assignment as presented. However, marks for **evaluation of specific requirements of assignment**, where attempted, will be disallowed.
  5. Where the **dish / product prepared has not been identified in the investigation**, but fulfils the requirements of the assignment, deduct the relevant marks awarded (-1/-2) under meals /dishes/products in investigation.
  6. **Teacher demonstration** work is **not acceptable**, therefore no marks to be awarded for implementation and evaluation of implementation.
  7. **Dish** selected **not fully compliant** with requirements e.g.
    - An **uncooked dish** selected where a cooked dish specified
    - Dish **not suitable for school going children to maintain a healthy weight** - Assignment 2
    - Dish selected shows **few process skills**
    - Dish selected includes **over use of convenience foods**Deduct – 8 marks from total mark awarded for assignment and insert explanation as highlighted above.
  8. A **dish that does not meet the requirements of the assignment** e.g. a dessert dish prepared instead of a main course; no marks to be awarded.
  9. Where a teacher disallows a practical application, no marks are allowed for **Implementation and Evaluation of Implementation**. All other areas may be credited.
- NB** All scenarios must be checked with advising examiner before being applied.  
When applying a scenario indicate by putting S. 7 - 8 marks with the relevant comment at the beginning of the assignment.



