



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

**Leaving Certificate 2017**

**Marking Scheme**

**Home Economics – Scientific and Social**

**Ordinary Level**

### **Note to teachers and students on the use of published marking schemes**

Marking schemes published by the State Examinations Commission are not intended to be standalone documents. They are an essential resource for examiners who receive training in the correct interpretation and application of the scheme. This training involves, among other things, marking samples of student work and discussing the marks awarded, so as to clarify the correct application of the scheme. The work of examiners is subsequently monitored by Advising Examiners to ensure consistent and accurate application of the marking scheme. This process is overseen by the Chief Examiner, usually assisted by a Chief Advising Examiner. The Chief Examiner is the final authority regarding whether or not the marking scheme has been correctly applied to any piece of candidate work.

Marking schemes are working documents. While a draft marking scheme is prepared in advance of the examination, the scheme is not finalised until examiners have applied it to candidates' work and the feedback from all examiners has been collated and considered in light of the full range of responses of candidates, the overall level of difficulty of the examination and the need to maintain consistency in standards from year to year. This published document contains the finalised scheme, as it was applied to all candidates' work.

In the case of marking schemes that include model solutions or answers, it should be noted that these are not intended to be exhaustive. Variations and alternatives may also be acceptable. Examiners must consider all answers on their merits, and will have consulted with their Advising Examiners when in doubt.

### **Future Marking Schemes**

Assumptions about future marking schemes on the basis of past schemes should be avoided. While the underlying assessment principles remain the same, the details of the marking of a particular type of question may change in the context of the contribution of that question to the overall examination in a given year. The Chief Examiner in any given year has the responsibility to determine how best to ensure the fair and accurate assessment of candidates' work and to ensure consistency in the standard of the assessment from year to year. Accordingly, aspects of the structure, detail and application of the marking scheme for a particular examination are subject to change from one year to the next without notice.

# MARKING SCHEME

*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.*

## 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.

## Section A

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

Each question is worth 6 marks.

Write your answers in the spaces provided.

1. Indicate with a tick (✓) whether **each** of the following statements is true or false. (6)

	True	False
Lipids (fats) are made up of fatty acids and glycerol.	✓	
Lipids (fats) contain the element nitrogen.		✓
Omega 3 fatty acids help reduce the risk of heart disease.	✓	

2. Name **three** different sources of fibre in the diet. (6)

- (i) *skins of fruit; fruit; vegetables; peas; beans; lentils; vegetable / fruit smoothies;*
- (ii) *wholegrain cereals; brown bread; nuts; seeds;*
- (iii) *brown rice; brown pasta; etc.*

3. Indicate with a tick (✓) which of the protein foods listed below are of high biological value and which are of low biological value. (6)

Protein Foods	High Biological Value	Low Biological Value
Eggs	✓	
Peas		✓
Fish	✓	

4. List **two** biological functions of calcium. (6)

- (i) *formation of strong bones and teeth; required for blood clotting;*
- (ii) *necessary for enzyme activity; normal muscle contractions; nerve functioning; etc.*

Name **two** good dietary sources of calcium.

- (i) *cheese; milk; yoghurt; tinned fish; dark green vegetables;*
- (ii) *fortified flour; white bread; hard water; etc.*

5. Outline **three** healthy eating guidelines for pregnant women. (6)

- (i) *include folic acid; foods rich in protein; calcium; vitamin D; fibre to prevent constipation; eat dry toast before getting up in the morning;*
- (ii) *increase intake of iron, vitamin C and thiamine; avoid fatty foods; avoid soft cheese, pâté - due to risk of listeria; raw eggs due to risk of salmonella; avoid spicy and highly seasoned foods to prevent heartburn; etc.*
- (iii) *include fatty acids; reduce salt levels; avoid shell fish; have small frequent meals to offset the feeling of nausea; etc.*

6. Give **two** examples of different foods suitable for **each** of the following methods of cooking. (6)

Methods of Cooking	Example 1	Example 2
Grilling	<i>fish; sausages; rashers; steak; lamb cutlets; etc.</i>	<i>tomatoes; mushrooms; peppers; fruit, kebabs; etc.</i>
Steaming	<i>fish; chicken; etc.</i>	<i>Christmas pudding; rice; fruit; vegetables; etc.</i>
Roasting	<i>lamb; chicken; beef; pork; turkey; etc.</i>	<i>potatoes; vegetables; fruit; etc.</i>

7. Using the words listed below, complete the following statements in relation to cereals. (6)

**bran      endosperm      staple**

The largest part of the grain is the **endosperm** which contains starch.

Cereals are **staple** foods in many countries.

The **bran** layer is composed mainly of cellulose.

8. Indicate with a tick (✓) whether **each** of the following statements is true or false. (6)

	True	False
Food additives prolong (increase) the shelf life of foods.	✓	
Artificial colourings are permitted in baby food.		✓
The use of food additives is regulated by EU legislation.	✓	

9. State **three** ways the *Sale of Goods and Supply of Services Act (1980)* protects the consumer. (6)

- (i) *goods should be of merchantable quality; fit for purpose intended; be as described; correspond to sample; services should be provided by a skilled person; consumer is entitled to redress; entitled to a repair, refund or replacement;*
- (ii) *sets out the conditions for a guarantee;*
- (iii) *materials used must be of good quality; service must be carried out with due care and attention; etc.*

10. Outline **two** points to be considered when selecting textiles for the home. (6)

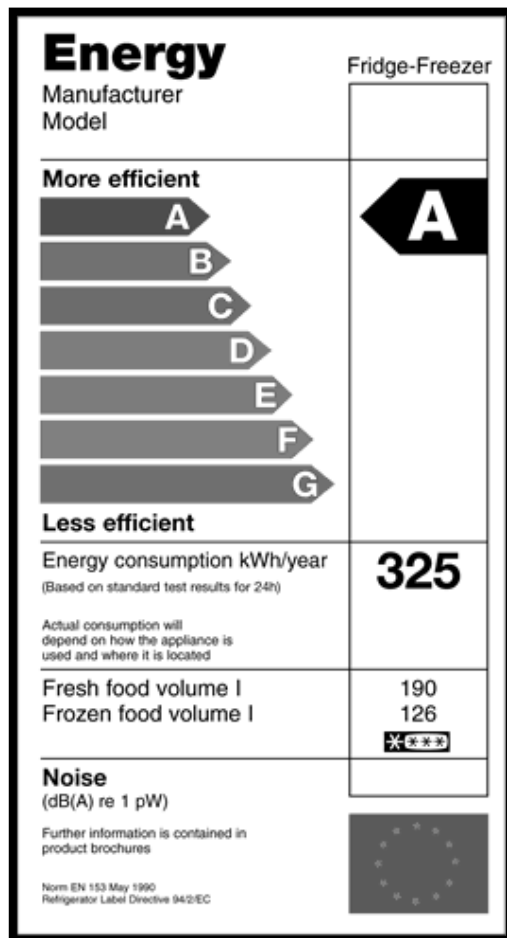
- (i) *properties of the fabric, e.g. stain resistant etc.; suitability of the fabric for purpose; cost; personal likes and dislikes; current fashion trends;*
- (ii) *aesthetic appeal; appearance; drapes well; weight; texture; lustre; colour; pattern; durability; care and cleaning – wash / dry clean; safety e.g. flame retardant; etc.*

Name **two** fabrics suitable for household textiles.

- (i) *cotton; wool; nylon; viscose; linen;*
- (ii) *polyester cotton; acrylic; silk; etc.*

11. Explain **one** benefit of the label below to the consumer.

(6)



*enables consumers to choose appliances based on their energy efficiency; appliances are rated on an A-G scale; A and B rated appliances are the most energy efficient; gives information on energy consumption; information on star rating of the appliance; noise level; etc.*

([www.which.co.uk](http://www.which.co.uk))

12. Give **one** example of the following types of pollution.

(6)

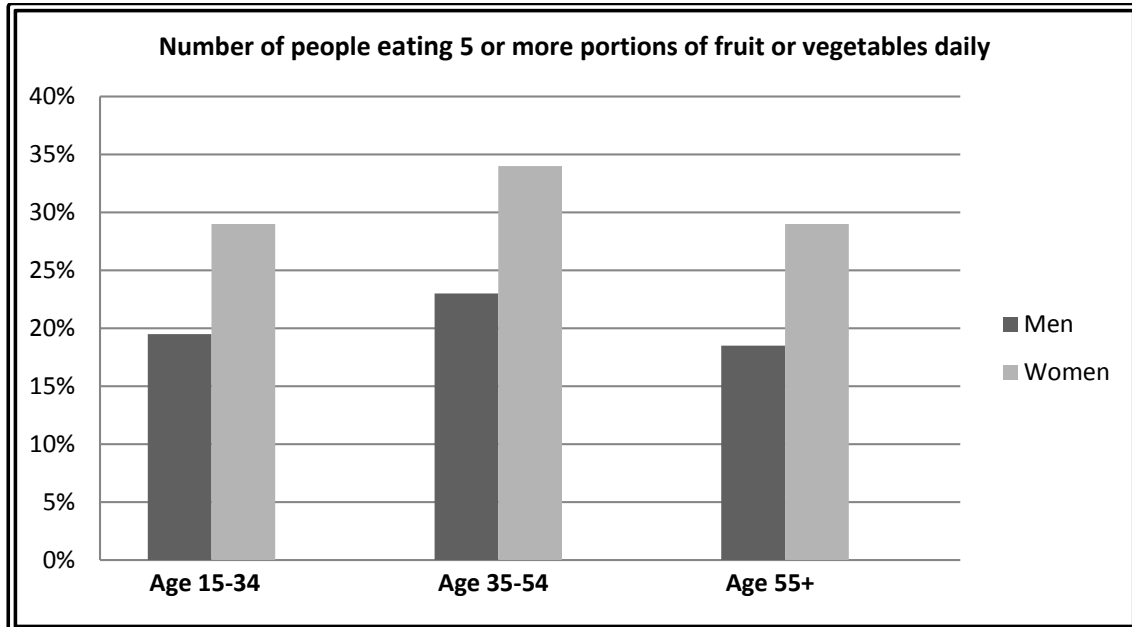
Types of pollution	Example
Air pollution	<i>smoke from domestic fires; emissions from factories; CFC; carbon monoxide; etc.</i>
Water pollution	<i>factory waste; sewage; farm effluent; fertilisers; pesticides; chemical waste; phosphates; etc.</i>
Noise pollution	<i>music systems; televisions; construction sites; roadworks; traffic; lawnmowers; house alarms; car alarms; etc.</i>

## 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 World Health Organisation recommends the consumption of at least five portions of fruit or vegetables daily.' (Healthy Ireland Survey, 2015)



(a) Using the information provided above:

- (i) comment on the table **and** give **one** reason why women consume (eat) more fruit and vegetables than men in **each** of the **three** different age groups. (15)

**Comment: 3 marks, 3 reasons @ 4 marks each**

**(1 reference to each age group)**

*Women are more health conscious; weight conscious; aware of nutritional benefits of fruit and vegetables; tend to eat more salads as they contain very little fat - are used as part of a low calorie and low cholesterol diet; high in vitamin C; eat for healthy snacks; quick and easy to prepare; elderly women eat fruit and vegetables to prevent constipation - high in fibre; provide a cheap meal; can be eaten raw or cooked; popular for using in the making of juices and smoothies; little loss of nutrients in frozen fruit and vegetables; many young women are vegetarians; aware of need for 5-7 portions per day; etc.*

- (ii) suggest **three** ways that men can increase their daily intake of fruit and vegetables. (12)

**3 ways @ 4 marks each**

*Eat home-made soups; replace sweets snacks with fruit and vegetables; include smoothies; include fruit and vegetables at every meal; add fruit to breakfast cereals; make fresh fruit juices; use fruit and vegetables as toppings on pizza's; include vegetables in curries, Bolognese and pies; use fresh fruits as a dessert option; include fruit in lunch boxes; etc.*



(b) Give an account of Vitamin C under **each** of the following headings:

- dietary sources (16)

**4 sources @ 4 marks each**

*Citrus fruits – oranges, lemons, grapefruit; blackcurrants; rosehips; strawberries; peppers; green leafy vegetables; tomatoes; potatoes; apples; pears; kiwi; peas; beansprouts; etc.*

- functions in the body (8)

**2 functions @ 4 marks each**

*Prevents scurvy; converts non-haem iron to haem iron; build up the immune system; prevention of colds and flu; helps form connective tissue; builds up collagen for wound healing; works with vitamin E to prevent coronary heart disease; is an antioxidant; thought to have a role in cancer prevention (destroys free radicals); formation of blood vessels; maintain elasticity in skin; etc.*

- effect of deficiency. (4)

**1 effect @ 4 marks**

*Scurvy; bruising and bleeding; wounds take longer to heal; anaemia; haemorrhages; tiredness; colds and flu; poor skin; etc.*

(c) Vitamin C assists the absorption of nutrients. Name **one** of these nutrients. (5)

**Name: 5 marks**

*Iron; protein; calcium; etc.*

(d) Discuss **four** factors to be considered by consumers when selecting **and** buying pre-prepared (convenience) fruit and vegetables. (20)

**4 factors @ 5 marks each**

**(1 reference to selecting, 1 reference to buying plus 2 other points)**

*Check the use by date; cost and value for money; organic; buy in useable quantities; avoid fruit and vegetables with discolouration, bruising; buy medium size for best flavour; check the package is not opened; packaging easy open; check the nutritional value of the product; storage; cooking instructions; time required to cook the product; traceability and labelling; country of origin; is it ready to serve; variety of fruit and vegetables available, in season; buy in a clean hygienic shop; contains the Bord Bia quality mark; etc.*

2. A breakfast club is a chance for students to have their most important meal of the day. Paul and Lisa attend a breakfast club in their post primary school. The table below shows the meals eaten by Paul and Lisa on a typical school day.

<b>Breakfast</b> (Breakfast Club)	Bowl of porridge Carton of yoghurt Glass of orange juice
<b>Morning break</b>	Salt and vinegar crisps
<b>Lunch</b>	White bread roll with chocolate spread filling Can of fizzy orange
<b>Dinner</b>	Cheese pizza and chips Chocolate bar Glass of milk

- (a) (i) Comment on the breakfast that Paul and Lisa eat at the breakfast club. (8)

**Comment: 2 points @ 4 marks each**

*Porridge will give energy, help to concentrate in school; protein for growth and repair in the yoghurt; calcium for development of bones and teeth; vitamin C and fibre in the orange juice; yoghurt, breakfast cereal and juice may have sugar; is a healthy breakfast; etc.*

- (ii) Give details of **three** possible diet related problems that may arise if Paul and Lisa continue eating the morning break, lunch, and dinner meals above. (12)

**3 diet related problems @ 4 marks each**

*Overweight; obesity; coronary heart disease (CHD); tooth decay; hyper activity; constipation; anaemia; diabetes; osteoporosis; acne; craving for sugar; high blood pressure; etc.*

- (b) Suggest an alternative menu for Paul and Lisa's morning break, lunch **and** dinner. (15)

**Morning Break = 3 marks, Lunch = 6 marks, Dinner = 6 marks**

**Morning break:** apple; carton of yoghurt; mixed fruit; etc.

**Lunch:** brown bread roll with chicken & salad; tuna & sweetcorn wrap; milk / water / fruit smoothie; etc.

**Dinner:** homemade vegetable soup; lasagne & salad; spaghetti Bolognese, chicken curry and rice; fruit salad; apple crumble; water / milk / tea / coffee; etc.

- (c) Discuss **three** factors that affect the food choices of students in post-primary school. (15)

**3 factors @ 5 marks each**

*Personal preference; cost; nutritional awareness; advertising; peers; health status; allergies; level of activity; range of foods available - school canteen, vending machines; availability of area to eat foods; facilities to reheat foods; participating in sporting activities; healthy eating programmes / school policy on healthy eating; etc.*

3. 'Your Craft Butcher respects meat as a quality product and will happily provide cookery tips and storage advice to customers.'  
([www.craftbutchers.ie](http://www.craftbutchers.ie))

- (a) Give an account of (i) the nutritive value **and** (ii) the dietetic value of meat. (20)

**4 points @ 5 marks each**

**(1 reference to nutritive value, 1 reference to dietetic value, plus 2 others)**

**Nutritive:** HBV protein; saturated fat; no carbohydrates; vitamin B group vitamin A and D in liver; deficient in vitamin C; iron in red meat; small amounts of sulphur, zinc, potassium; etc.

**Dietetic:** excellent source of protein for growth and repair of body cells; saturated fat - provides heat and energy; high in cholesterol - should be avoided by people with CHD; difficult to digest; serve with a carbohydrate food e.g. bread, pasta or potatoes; haem iron easily absorbed; especially important for pregnant women, children, teenagers and menstruating women; etc.

- (b) Outline:

- (i) the effects of cooking on meat
- (ii) the guidelines for storing meat.

(16)

**2 effects of cooking @ 4 marks each**

Protein coagulates; becomes firm; shrinks due to loss of meat juices; fat melts; collagen is converted to gelatine; meat fibres become tender; easier to digest; water soluble vitamins are lost; bacteria are destroyed; colour changes; flavour improves; overcooking causes meat to be indigestible; etc.

**2 guidelines for storage @ 4 marks each**

Put into a refrigerator; remove from wrapping; put onto a plate; cover with cling film; place raw meat below any cooked meat or meat products, to prevent cross contamination; use within 2-3 days; if freezing place in the freezer on the day of purchase; keep vacuum packed meat in wrapping until ready to use; etc.

- (c) Explain **two** causes of toughness in meat **and** name **two** different methods of tenderising meat.

(14)

**2 causes @ 4 marks each**

Age; older animals have longer, thicker muscle fibres; more connective tissue; active parts of the animal are tougher, e.g. neck and legs; animal treatment before and after slaughter; etc.

**2 methods @ 3 marks each**

Before slaughter inject with proteolytic enzymes; mincing; pounding with a steak hammer; piercing with needles; before cooking sprinkle with meat tenderiser; long slow moist methods of cooking e.g. stewing; marinating; etc.

**4. Refrigerators are designed to keep food fresh and assist in reducing food waste.**

- (a) Discuss **four** factors that should be considered when choosing a refrigerator for a family. (20)

**4 factors @ 5 marks each.**

*Initial cost; running cost; brand name; size; energy efficiency; space available; colour; safety; design; construction; durability; ease of use; ease of cleaning; length of guarantee; availability of credit; after sales service; reputable dealer; etc.*

- (b) Set out the results of a study you have carried out on a refrigeration appliance.

Refer to:

- type of refrigeration appliance (20)

**1 type @ 2 marks**

*Standard under the counter; larder fridge; fridge freezer; American fridge; retro style; integrated model; etc.*

- guidelines for use

**3 guidelines @ 4 marks each**

*Follow manufacturer's instructions; avoid opening the door unnecessarily; cool foods beforehand; cover foods to prevent drying out; store raw and cooked foods separately to prevent cross contamination; use food in rotation; thaw food in the fridge; allow air to circulate around foods; do not over pack; position away from heat source; defrost regularly; wash inside with bread soda; do not use strong smelling cleaning agents; check and clean door seal regularly; etc.*

- modern features

**2 features @ 3 marks each**

*Automatic defrost; frost free; zonal refrigeration; power chill; humidity controlled drawers; drinks dispenser; ice makers and dispensers; integrated door; variety of colours; digital temperature display; LED lighting; tall bottle and gated shelves; anti-bacterial coating inside; flexible configurations; etc.*

- (c) Outline **two** sources of consumer information available to consumers when purchasing household appliances. (10)

**2 sources @ 5 marks each**

*Magazines; newspapers; television and radio programmes; sales people; advertising; leaflets; labels; word of mouth; internet; energy efficiency label; etc.*

5. The family is one of the most important institutions in our society, and has been subject to rapid and fundamental change.

(a) Describe **each** of the following family structures:

- nuclear family      **1 point @ 6 marks**
- extended family    **1 point @ 6 marks**
- blended family      **1 point @ 6 marks** (18)

**Nuclear family:** parent / parents and their children; living in a self-contained unit; tasks are usually shared; both parents work; mobile; can easily move from place to place; number of children is usually small; independent; etc.

**Extended family:** parents, children, grandparents, aunts, uncles and relatives; all living in close proximity to each other; members often work together as an economic unit; interdependent; segregated roles for men and women; etc.

**Blended family:** one or both partners in the relationship have been married before; bring children from a previous relationship with them; arises usually because of remarriage; may also result because of the death of a spouse; etc.

(b) Discuss **three** ways in which gender roles have changed in the modern family. (15)

**3 ways @ 5 marks each**

Both parents work; father may be the main carer for the children; little or no division between male and female jobs; decisions are made democratically; roles are egalitarian - women gardening, men doing housework; same sex marriages / parenting; less stereotypical; etc.

(c) Give **one** reason why it is important to make a will.

Outline **three** important features of a valid will. (17)

**1 reason @ 5 marks**

**Reason:** person's wishes about the distribution of their estate following their death are set out; an executor will ensure the wishes of the deceased are respected; if a person dies without leaving a will a sizable portion of their estate will go to the state; property passes to whom the deceased wishes; inheritance tax can be reduced for dependents; guardianship arrangements for children if both parents are deceased; etc.

**3 features @ 4 marks each**

Appoint a solicitor; choose an executor to ensure all requests regarding the will are met; **signed** and dated in presence of 2 **witnesses**; kept in a safe place e.g. with the solicitor or in the bank; must be **over 18 years**; individual must be of **sound mind**; must be **written**; has a complete list of assets; division of assets / finances; list of beneficiaries; funeral arrangements; etc.

## Section C

### 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) Examples of housing styles in Ireland are shown below.



(www.google.com)



(www.plan-a-home.ie)



(www.seandaly.com)

- (i) Discuss **four** factors that may influence a young couple's choice of housing style. (20)

#### **4 factors @ 5 marks each**

*Open plan; terraced; bungalow; detached; apartment; semi-detached; location; availability; age of the children; lifestyle of the family; size of house; number of bedrooms; garden; parking space; family member with special needs; personal choice; energy efficiency of the home; old or new build; price; etc.*

- (ii) Name **and** describe **one** method of insulation you would recommend for **each** of the following areas in a house: (15)

#### **3 points @ 5 marks each**

**Name: 2 marks, Description: 3 marks (one reference to each method)**

- attic

**fibre blanket:** fibreglass, wool or mineral; laid between joists; etc. **loose fill:** pellets of polystyrene or vermiculite; poured in between joists; etc. **foam insulation:** foam sprayed between roof and rafters; etc. **blown-fibre insulation:** glass, mineral or cellulose fibres are blown into the attic and sealed; etc.

- walls

**cavity walls:** two layers of blocks, 5-10cm apart, air in space acts as insulator; polystyrene sheets can be inserted at the building stage; polystyrene foam or beads are pumped into the cavity; etc. **solid walls:** dry lining for internal walls; external walls - sheets of insulation are attached to batons and covered with a plasterboard layer; etc.

- windows.

**double or triple glazed:** two sheets of glass with an air space between them, the space can be filled with an inert gas e.g. argon; low emissivity glass ensures less conductivity of heat to the outside; etc. **curtains:** heavy lined, fitted; etc.

- (iii) State **three** advantages of having a house well insulated. (15)

#### **3 advantages @ 5 marks each**

*Reduce heating bills; act as a noise barrier; maintains a constant comfortable temperature; reduces the use of energy resources; etc.*

and

**1.(b) Colour is a powerful tool used in design to create a beautiful home.**

- (i) Explain how colour can be used to create atmosphere in a family home. (15)

**3 points @ 5 marks each**

*Blues and greens make a room feel cool; warm colours should be used in north facing rooms where daylight is limited; south facing rooms can be decorated with cool colours; light colours reflect light making small rooms appear larger; a contrasting colour can be used to highlight a feature wall; whites and shades of cream are considered neutral; warm colours can make a room seem smaller and cosier; pastels create a restful and relaxing atmosphere; can give a 3D dimension to a room; etc.*

- (ii) Suggest **two** soft furnishings that would enhance the appearance of a newly decorated living room. Give reasons for your choice. (15)

**2 soft furnishings @ 4 marks each**

**1 reasons @ 4 marks, 1 reason @ 3 marks**

**Soft furnishings:** curtains; scatter cushions; blinds; rugs; throws; lamp shades; arm rest covers; bean bags; etc.

**Reasons:** creates texture; colour; comfort; adds 3D shape to room; add privacy; provide insulation; add to décor and ambience of the room; etc.

or

**1.(c) 'Electricity is a powerful and versatile energy but can be dangerous if it is not used properly.'** (www.esbnetworks.ie)

- (i) Outline **three** guidelines for the safe use of electricity in the home. (15)

**3 guidelines @ 5 marks each**

*Never mix water and electricity; do not use electrical appliances in the bathroom except shaver sockets; avoid overuse of adaptors and extension cables; purchase only electrical appliances that carry recognised safety symbols; avoid trailing flexes; check electrical blankets for signs of wear; unplug appliances before cleaning them; do not charge phones and computers overnight; keep electrical heaters away from curtains; etc.*

- (ii) Recommend **one** type of energy supply (other than electricity) to the home. Give reasons for your choice. (15)

**Type: 5 marks, 2 reasons @ 5 marks each**

**Type:** gas; oil; solid fuel, coal, peat, turf, wood, bio-mass; solar; wind; water power; geothermal; etc.

**Reasons:** heats home and water; clean; efficient; environmentally friendly; can be used for cooking; generates electricity; uses local resources; 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) The Debs (graduation) is a very important occasion in many teenagers lives.



(www.debs-suits-online.com)



(www.debs-dresses-online.com)

(i) Comment on the suitability of the debs (graduation) outfits as shown above.  
Refer to:

- shape **2 points @ 3 marks each**
- proportion **2 points @ 3 marks each**
- design features **2 points @3 marks each**

(18)

**Suit - shape:** slim leg trousers; short length in the jacket gives height to the man; high waist trousers; etc. **proportion:** waistcoat in proportion to the jacket; etc. **design features:** matching handkerchief in pocket; four buttons on waistcoat blending in with slightly larger buttons on jacket; tie matched the handkerchief; etc.

**Dress - shape:** dress suits person with wide hips; strong silhouette line; the v neckline is feminine; curved neckline is softening; the folded skirt adds width; fitted bodice give a slimming effect; etc. **proportion:** long skirt is full and flowing and gives the impression the woman is tall; the eye moves slowly along the curved line of the dress; etc. **design features:** pearls contrast well with the colour of the dress; attractive looking dress; comfortable to wear; skirt allows ease of movement; etc.

(ii) Suggest **one** accessory you could add to enhance either of the above outfits.  
Give a reason for your choice.

(7)

**1 accessory @ 3 marks, 1 reason @ 4 marks**

**Man:** cufflinks to compliment his suit; cravat or tie in the same colour to match his suit or shirt; bow-tie in contrasting colour, to add interest and a focal point to suit; lapel pin to compliment suit; etc.

**Woman:** beaded bag in contrasting colour; belt in a contrasting colour; pashmina shawl in a contrasting pastel colour to add another layer to outfit; bracelet of pearls to match necklace; evening wear bag; etc.



and

2.(b) 'Natural fibres are fashionable and the fibre of choice for many young designers.'

(www.wildfibres.co.uk)

- (i) Classify natural fibres **and** give **one** example in **each** class. (8)

**Classify: 2 @ 2marks each, Examples: 2 @ 2 marks each**

**Animal:** wool; silk; etc.

**Plant:** cotton; linen; hemp; jute; etc.

- (ii) Name and describe **one** test to identify a natural fibre. (7)

**Name: 3 marks, Description: 4 marks**

**Burn test:**

**Description:** cut a small piece of fibre from the fabric, hold it with a pair of tweezers over a flame proof dish; with either a match or a cigarette lighter; fibres can only be identified by the smell of the smoke it gives off in burning and the ash or melted beads that remain after it has burned; etc. **Cotton** will flare up when lit, no melting beads are left and after burning it continues to glow; the smoke is grey to white and the ash is fine and soft; etc. **Linen** is a cellulose fibre and will take longer to ignite; it is easily extinguished by blowing on it; etc. **Silk** is a protein fibre which burns slowly; it sizzles and curls away from the flame; it leaves a dark bead which can be crushed; it is self-extinguishing and leaves ash that is a dark, gritty, fine powder; it smells like burned hair or charred meat; it gives out little or no smoke; etc. **Wool** is a protein fibre which burns slowly; it sizzles and curls away from the flame and may curl back onto the fingernail; it leaves beads that are brittle, dark and easily crushed; it is self-extinguishing and leaves harsh ash from the crushed bead; it gives out a strong odour of burning feathers or hair; etc.

or

2.(c) Fashion designers have made fashion a huge industry in the 21<sup>st</sup> century.

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

**Name: 3 marks, Comment: 3 marks**

*John Rocha uses Irish fabrics to create unique Celtic designs; etc. Louise Kennedy created design for previous president, emphasis on detail; etc. Philip Treacy milliner to the stars and royalty; etc. Paul Costelloe uses traditional Irish fabrics and designs; etc. Orla Kiely designs a range of accessories with trademark leaf design; etc. Helen Cody ranges of evening wear; etc.*

- (ii) Outline **three** fashion trends currently popular with teenagers. (9)

**3 trends @ 3 marks each**

*Skinny leg jeans; metallic bomber jackets; light-coloured round necked sweatshirts; shiny jackets; scarves; ripped denim; chunky jewellery; designer jeans and shoes; etc.*

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

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

- 3.(a)** 'Since the onset of the recession the number of people in poverty in Ireland has increased by more than 100,000. Today there are more than 750,000 people living in poverty in Ireland.'  
([www.socialjustice.ie](http://www.socialjustice.ie) 2016)

- (i) Define *poverty*. (6)

Explain **each** of the following:

- relative poverty
- absolute poverty. (12)

#### Definition: 6 marks

**Poverty:** being without adequate food, clothing or shelter; income and resources are inadequate and do not allow them an adequate standard of living that is acceptable by Irish society; having little or no wealth; inadequate income and resources may exclude and marginalise people from participating in activities that are considered the norm for people in society; etc.

#### Relative Poverty: 6 marks

Living below what society recognises as a basic standard of living; living below the poverty line which is defined as 50% of the average household income; being unable to afford a good waterproof coat; 2 good pairs of shoes; adequate heating; a meal containing meat or fish at least every second day; standard of living prevents people from partaking in activities which are looked upon as normal in society; etc.

#### Absolute Poverty: 6 marks

Not having enough food, clothing, warmth or shelter; struggling to stay alive and have no viable means of rectifying the problem; homeless people in Ireland may live in absolute poverty; etc.

- (ii) Name **three** groups of people at risk of poverty **and** state the effect of poverty on **each** group. (18)

#### 3 groups @ 3 marks each, 3 effects @ 3 marks each

**Elderly people:** may be living in substandard accommodation that may be expensive to heat; illness; malnutrition; etc. **unemployed people:** state payments inadequate to meet needs – food, clothing, etc.; poverty trap; depression; relationship problems; etc. **lone parents:** state benefit inadequate - unable to access education; childcare needs; addiction; etc. **low-paid workers:** on minimum wage but often not entitled to any state supports; unable to support family from meagre resources; debt; etc. **refugees / ethnic minorities:** lack skills / qualifications; etc. **people with disabilities / long term illness:** cannot access work due to health status; state supports inadequate; etc. **small farmers / rural households:** income from agriculture is often well below poverty line; farmers cannot access payments because they could be considered asset rich; depression; social isolation; etc. **members of travelling community:** poor housing; social problems; etc. **homeless people:** isolation; poor health; etc. **children:** low self-esteem; etc.

- (iii) Name **and** give details of **one** voluntary organisation that provides support to people at risk of poverty. (14)

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

**St. Vincent De Paul:** raises money through church gate collections, charity shops, sales of work; provides financial assistance to people in need in the local community; assists in paying bills, buying school books, uniforms; provides person to person contact; members visit needy families in their area; do housework, gardening, shopping for the elderly; provide housing, holiday breaks, homework clubs; etc.

**Simon Community:** provides support and emergency accommodation to people who are homeless or at risk of homelessness; soup kitchens; addiction treatment options; assistance with food and clothes; provides counselling and education services; etc.

**Focus Ireland:** works to combat poverty and prevent homelessness; provide training in personal and life skills; information on job opportunities; provides drop - in coffee shop, accommodation; etc.

**Lions Club; Rotary Club; etc.**

**and**

**3.(b) Work fills a large part of a person's life.**

- (i) Discuss **three** factors that affect a person's attitude to their work. (15)

**3 factors @ 5 marks each**

Home background; work ethic shown by parents; social economic group; deprived background may not have high expectations; level of education; intrinsic job satisfaction; extrinsic job satisfaction; self-esteem; working conditions; etc.

- (iii) Outline the benefits of voluntary work to:

- the individual
- the community. (15)

**3 benefits @ 5 marks each**

**(1 reference to individual, 1 reference to community plus 1 other)**

**Individual:** stimulates interest and creativity; feeling fulfilled; improves self-confidence; sense of achievement; fulfil a sense of purpose; improves performance; personal satisfaction; occupies free time; provides social interaction; etc.

**Community:** awareness of certain issues in the community; provides new skills in the area; provides an unfunded service e.g. Samaritans; sense of neighbourliness is cultivated; services provided at a low cost to the community; etc.

**or**

3.(c) 'Early childhood is a really important and exciting phase of a child's life, when they learn so much about themselves, others, and the world around them.'

([www.limerickchildcare.ie](http://www.limerickchildcare.ie))

- (i) Name **and** give details of **two** pre-school options available to parents for their children.

(15)

**Name: 1 @ 4 marks, 1 @ 3 marks;**

**Details: (2 points @ 2 marks each) X 2**

**Play groups and play schools:** are community or privately run; operate 3-4 hours daily; cater for children between ages of 3-5 years; provide a planned pre-school programme; offer a stimulating environment; etc.

**Early start pre-school project:** one year programme offered under the DEIS scheme; targeted to 3-4 year olds who are at risk of not succeeding in education; primary teacher and assistants provide education; classes held in mornings; etc.

**Crèche:** fully qualified staff; may be community based or run privately; may be attached to work place; provide eating, sleeping, changing washing and playing facilities; helps a child's social skills; safety and hygiene standards must be maintained and are checked by the HSE; ratio of carers to children sufficient to ensure due care and attention; community based centres give preference to children in need; etc.

**Montessori school:** are generally privately run; provide education up to 7 years; run by Montessori trained teachers; children learn through play; special teaching materials and toys are available; etc.

**Naíonraí; nurseries; etc.**

- (ii) Discuss **three** advantages of attending pre-school for young children.

(15)

**3 advantages @ 5 marks each**

*Socialisation - learn to interact with other children – play etc.; form a relationship with other children; become independent and confident; develop physically by playing games; develop hand and eye co-ordination; intellectual development helped by learning in a stimulating environment; good preparation for primary school; learn to form relationships outside the home; their intellectual development is speeded up; etc.*



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

# **LEAVING CERTIFICATE 2017**

## **MARKING SCHEME**

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

# Food Studies Practical Coursework General Marking Criteria

## Investigation: Analysis/Research - 32 marks

### Research and analysis

= 24

#### Band A 19 - 24marks (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 13 - 18marks (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 7 - 12 marks (basic - 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 - 6 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: menu for day/2 two course meals/1 dish/2 dishes/2 products

= 4

#### If dish prepared is not investigated -1/-2/-4 marks in Investigation.

(menu – starter/dessert = 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

### Sources: 2 sources @ 2 marks each

= 4

## **Preparation and Planning - 8 marks**

### **Resources:**

- ingredients (2 marks), quantities (2 marks), costing (2 marks), equipment (2 marks) = 8
- AOP E – product/s (4marks), equipment (4marks)

## **Implementation - 28 marks**

Outline of the procedure followed to include food preparation processes, cooking time/temperature, serving/presentation, 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 - 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 points @ 4 marks each** = 8  
*Identification (2) and clear explanation of importance (2) of **two** factors considered which were critical to the success of the dish*

**Safety/hygiene** **2 points @ 2 marks each** = 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 - 12 marks**

**3 points @ 4 marks each** = 12

Evaluate the assignment in terms of:

### **Implementation**

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

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

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

The **Specific requirements** of the assignment

**Band A - 4 marks** - draws informed conclusions in relation to the key requirements of the assignment

**Band B - 3 marks** - draws limited conclusions in relation to the key requirements of the assignment

**Band C - 2 marks** - summarises outcomes in relation to the assignment

## Area of Practice A: Application of Nutritional Principles

### Assignment 1

***The early years of life are a period of rapid growth and a healthy diet is critical for normal development. During this time, children establish their eating behaviours and food preferences.***

Research and elaborate on the nutritional needs and the meal planning guidelines that should be considered when planning meals for children aged between two and five years. Include reference to the modifications that should be made to dishes to ensure that they are suitable for young children.

Bearing in mind these considerations, suggest a menu for **one** day (three meals and snacks) suitable for children of this age group.

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.

2017

#### Key requirements of the assignment:

- dietary/nutritional needs with specific reference to **children aged between two and five years**
- relevant meal planning guidelines with specific reference to **children aged between two and five years**
- modifications that should be made to dishes to ensure that they are suitable for young children
- menu for one day (three meals and snacks)
- chosen main course dish of the main meal of the day.

#### Investigation

**Dietary/nutritional requirements:** *nutritional balance; physical growth increases the need for intake of all nutrients; daily requirements of macro/micro nutrients including protein/carbohydrate/fat/iron/calcium requirements as appropriate to 2-5 year olds, with reasons for possible variations; high fibre; Vitamin C/iron absorption; Vitamin D/calcium absorption; energy balance vis a vis activity levels; current nutritional guidelines re nutrient and food intake; etc.*

**Meal planning guidelines:** *use food pyramid to ensure balance; recommended servings - cereals(4), fruit and vegetables(2-4), protein food(1), dairy(1); eat three balanced meals each day; avoid skipping meals; variety of foods; personal likes and dislikes; use foods in season; avoid unhealthy snack foods i.e. high in salt, fat and sugar, spicy foods; include porridge/muesli instead of processed breakfast cereals; meals should be attractive and colourful to encourage children to eat foods; portions should not be too big; avoid adding salt in cookery; select lean meats; limit intake of processed foods, these tend to be high in fat, salt and sugar; foods should be easy to chew and digest; use sauces to soften meat; liquidise vegetables with meat & sauces; select foods that are easy to handle; replace sugary drinks with water and milk; serve meals at regular times so children know when to expect food; offer finger food - to allow younger children feed themselves; etc.*

**Modifications:** *include easily digestible sources of HBV protein e.g. chicken/eggs; include LBV sources e.g. beans/lentils, also a good source of fibre; add fruit to breakfast cereals/desserts with yoghurt – calcium and HBV protein; use wholegrain cereals - give slow release of energy instead of refined CHO; add extra vegetables to dishes to add colour, fibre, essential vitamins; reduce sugar in recipes - add fruit as a sweetener; include oily fish, nuts/seeds to add EFA and omega 3; include sources of calcium e.g. cheese/yoghurts; use avocado or hummus as an alternative to spreads and margarines; use a variety of vegetable and seed oils when preparing foods; replace butter by using healthier choices - canola, sunflower, olive and sesame oils; remove bones from fish; grate vegetables; food presentation – food shapes, individual portions; etc.*

**Dishes selected**

- menu for one day (three meals and snacks)
- must meet the nutritional requirements for 2-5 year olds
- must be a main course dish.

#### Evaluation (specific requirements of assignment)

*Analysis of findings regarding the nutritional requirements of a range of dishes/meals for children between two and five years. Meal planning guidelines – range of dishes/meals suitable for 2-5 year olds etc., how the selected dish meets the requirements as identified in the investigation; etc.*



## Assignment 2

***Iron deficiency is the most common mineral deficiency worldwide, with women and children being the most susceptible. (World Health Organisation, 2015)***

With reference to the above statement, identify and discuss **(i)** the causes and **(ii)** the effects of iron deficiency anaemia.

Investigate and elaborate on the nutritional needs and meal planning guidelines that should be considered when planning and preparing meals for those who wish to increase the intake of iron in their diet.

Having regard to the factors identified in your research, suggest a range of menus (starters and main courses) suitable for the main meal of the day for this group of people.

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.

2017

### Key requirements of the assignment:

- *causes of iron deficiency anaemia*
- *effects of iron deficiency anaemia*
- *dietary/nutritional requirements with particular reference to **women and children***
- *relevant meal planning guidelines with particular reference to **women and children***
- *range of menus (starters and main courses)*
- *chosen main course dish.*

### Investigation

**Causes of iron deficiency anaemia:** *unbalanced diet; lack of vitamin C; excess fibre in diet; tannins in tea, coffee and cocoa; phytic acid in cereals and pulses; oxalic acid in vegetables; herb oregano reduces absorption; poorly monitored diets i.e. vegetarian/weight reducing diets; medical conditions e.g. coeliac disease can reduce the amount of iron absorbed; excessive blood loss after surgery, menstruation; illness - not being able to absorb iron; fussy eaters; difficulty finding healthy foods that are high in iron; vegetarian diets as iron from meat sources is more easily absorbed than iron from plant sources; toddlers may be deficient if they drink too much cow's milk and eat fewer iron-rich foods e.g. red meat and green leafy vegetables; etc.*

**Effects of iron deficiency anaemia:** *tiredness, fatigue, irritability, lethargy, lack of concentration, headaches, palpitations, breathlessness, dizziness, pale skin, feeling weak, muscle tiredness, dryness in mouth/throat, mouth sores, brittle hair/nails; etc.*

**Dietary/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; current nutritional guidelines re nutrient and food intake; knowledge of haem and non-haem iron foods; etc.*

**Meal planning guidelines:** *use of food pyramid to ensure balanced meals; eating three regular balanced meals each day; breakfast should include a fortified breakfast cereal; eat wide variety of fruit and vegetables; increase intake of iron rich foods and vitamin C for absorption of iron; haem-iron from animal sources is more easily absorbed than non-haem iron from plant sources; consume haem and non-haem iron foods together; foods that contain phytic acid and oxalic acid should not be consumed at the same time as iron rich foods; avoid foods high in salt and sugar i.e. processed foods; choose low fat products with polyunsaturated fats; avoid refined carbohydrate foods, replace with wholemeal products; avoid excess fibre in diet; etc.*

**Dishes selected**

- **menus for the main meal of the day (starters and main courses)**
- **should meet the nutritional requirements as identified to increase the intake of iron**
- **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 women and children in order to increase the intake of iron; factors that should be considered when planning meals to ensure nutritional adequacy; what foods are suitable/unsuitable; what special aspects of meal planning have to be considered; how the selected dish meets the requirements as identified in the investigation; etc.*

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

### Assignment 3

**Consumers need to be well informed on food safety practices when purchasing, storing and preparing food. They should know common food safety hazards and how to manage food safety.**

Carry out research on

- the importance of food safety for the consumer
- common food safety hazards
- practices to ensure that food is safe to eat
- dishes that require special adherence to safe food practices.

Prepare, cook and serve one of the dishes from your research.

Evaluate the assignment in terms of **(a)** a critical appraisal of the dish cooked and **(b)** how the safe food practices adhered to ensured the dish was safe to eat.

2017

#### Key requirements of the assignment:

- *the importance of food safety for the consumer*
- *common food safety hazards*
- *practices to ensure that food is safe to eat*
- *dishes that require special adherence to safe food practices*
- *chosen dish.*

#### Investigation

**The importance of food safety for the consumer:** *ensures food is not contaminated with potentially harmful bacteria, parasites, viruses, toxins and chemicals; prevents bacteria multiplying; helps the destruction of harmful bacteria; ensures the food we eat does not cause disease; etc.*

**Common food safety hazards:** **Chemical:** *e.g. cleaning products, pesticides; etc.* **Physical:** *e.g. foreign objects - parts of machinery/plasters/hairs; etc. falling into products during their manufacture; etc.*

**Microbial:** *contamination by bacteria; pathogenic strains cause illness in humans, can be difficult to detect e.g. campylobacter, salmonella; spoilage bacteria cause food to rot or perish and signs can be more readily detected; direct - raw meats touching ready-to-eat products; indirect - using the same knife to cut raw meat and ready-to-eat products; airborne contamination – sneezing over food; etc.*

**Practices that ensure food safe to eat:** **Purchasing:** *buy from a reliable source; un-damaged packaging; correct colour/smell/appearance; check for mould growth; check best before dates, use by dates; quality assurance stamps; etc.* **Storing:** *store raw foods separately from cooked/ready to eat/prepared food; rotate stock; refrigerating foods - correct position in fridge e.g. meat on bottom shelf; temperatures of 0-5°C; do not overload the fridge; defrost and clean the fridge regularly; keep doors closed to maintain the correct temperature; store frozen foods below -18°C; disposal of damaged produce to avoid contamination of other products; storage of dry goods in clean, well ventilated areas; store foods on shelves above floor level; storage containers must be covered; cleaning materials should be stored in a separate area; etc.* **Preparing:** *personal hygiene - wear clean, protective outer clothing, wash hands, tie up hair, do not smoke, cough/sneeze over food; ensure equipment is clean; use coloured coded chopping boards; minimise handling of food; thoroughly defrost frozen foods; separate work areas and utensils/equipment for fish, meats and vegetables/salad; wash food in a designated food preparation sink; cook foods to minimum core temperature of 75°C; hold hot foods above 63°C; reheat foods to a minimum core temperature of 70°C; hot food must be served within 90 minutes of cooking; only reheat foods once; cool foods quickly; cold food must be kept below 5°C; HACCP – purchasing, preparation and storage of food; high risk, low risk foods; etc.*

#### Dishes that require special adherence to safe food practices:

**Dish selected** - **chosen dish should meet the requirements as identified**

#### Evaluation (specific requirements of assignment)

**(a)** *a critical appraisal of the dish cooked* **(b)** *analysis of findings regarding what you learned from the investigation re how the safe food practices adhered to ensured the dish was safe to eat.*

## Area of Practice C: Food Technology

### Assignment 4

**Ireland has the 3rd highest consumption of ice cream per capita in Europe. (An Bord Bia)**

Carry out research on **two types** of commercially prepared ice-cream (one economy and one luxury/premium) with reference to brand, ingredients, nutritive information, cost and packaging.

Investigate **two** different methods of making ice cream (in the home) and explain the underlying principle in each case.

Prepare and make **one** ice cream using one of the methods that you have investigated. Include details of the type of packaging you would recommend for storage in the freezer.

Evaluate the assignment in terms of **(a)** implementation **(b)** practicability and **(c)** cost in comparison to a similar commercial ice cream.

2017

#### Key requirements of the assignment:

- research **two** types of commercially prepared ice-cream (one economy and one luxury/premium) - refer to brand, ingredients, nutritive information, cost and packaging
- investigate **two** different methods of making ice-cream and the underlying principle in each case
- packaging suitable for storage in freezer
- chosen ice-cream

#### Investigation

**Research two types of commercially prepared ice cream (one economy and one luxury/premium)**

**Brands:** HB, Haagen Dazs, Carte D'Or, Ben and Jerry's, Darina Allen, Walls, Weightwatchers, Nestlé, Murphy's, Tipperary Organic, Dairyglen, own brand ice creams; etc. **Ingredients:** cream, skimmed milk, whey solids, condensed milk, coconut milk, sugar, glucose, corn syrup, egg yolk, vegetable oils (coconut, sunflower, palm), fructose syrup, cocoa butter, stabilisers, cornstarch/arrowroot, guar gum, flavourings; agave nectar (sweetener helps ice crystals from forming, gives a smooth ice cream); etc. **Nutritive information:** saturated fat, trans fats, sodium, carbohydrate, sugar, fibre, protein; etc. **Cost:** economy €1.50 - €3; luxury/premium €5 - €7.50; **Packaging:** plastic tubs, push up tubs, cardboard wax cartons/tubs, waxed/foiled wrapping; etc.

#### Methods of making ice cream and underlying principle in each case:

**Custard: coagulation** – the egg protein coagulates when heated and thickens the mixture; the protein chains unravel, straighten and bond together around small pockets of water; overcooking causes the egg protein to clump together squeezing out any water causing curdling; sugar increases palatability and improves texture; **freeze** at low temperature for formation of small ice crystals; cream whipped and added for lightness; etc.

**Aeration:** egg whites and sugar are whisked to **incorporate air**, air beaten into cream to lighten mixture and increase volume; gelatine used to set mixture; can be cooked or uncooked; whisked for even texture; **freeze** at low temperature for formation of small ice crystals; etc.

**Gel:** gelatine used to form a gel as it **absorbs** large quantities of water; on heating the gel becomes a liquid called sol, on cooling sol becomes solid thickening ice cream mixture; **freeze** at low temperature for formation of small ice crystals; etc.

**Frozen/egg yolk and sugar syrup (mousse):** frozen syrup is flavoured with fruit juices and/or fruit puree; **aerated** with egg white; gelatine holds mixture together to make it light; freeze at low temperature for formation of small ice crystals; etc.

**Use of ice cream maker** (churn method); **by hand** (still method); etc.

**Suitable packaging for storage of ice cream in freezer:** plastic containers; foil containers; ramekin dishes for individual portions; different size waxed cardboard cartons; etc.

**If no packaging investigated for storage in freezer - deduct 3 marks**

**Dish selected – one ice cream using one of the methods investigated.**

**Evaluation** (as specified in assignment)

**(b) Practicability** of making ice cream – resource issues - time, skills, equipment, packaging, storage; etc.

**(c) Cost effectiveness** of making the ice cream selected when compared with a commercial product of similar quality.

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

### Assignment 5

**Commercially prepared pizzas are very popular due to their convenience and the wide range available.**

Carry out research on the different types of pizza available (i.e. brands, types, cost).

Cook **three** commercially prepared pizzas. The pizzas should have the same toppings and be of the same thickness but the brands should be different.

Carry out a **preference ranking test** to determine which pizza is the preferred choice within your group.

Evaluate the assignment in terms of **(a)** implementation and **(b)** the test results obtained.

**2017**

#### Key requirements of the assignment:

- *research different types of pizza available (i.e. brands, types, cost)*
- **preference ranking test**
- *conditions to be controlled during testing*
- **selected product** of your choice

#### Investigation

**= 24**

- Research/Investigation of products appropriate to the testing  
*i.e. investigate the different types of pizza available i.e. brands, types, cost; etc.*

- **Preference Ranking test**

**Description:** *tester is presented with a number of coded samples, tester ranks samples in order of preference; etc.*

**Aim of test:** *to determine which of three brands of pizza is preferred by testers; etc.*

**Possible outcomes:** *to assign an order to the samples according to people's preference.*

#### 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; temperature of sample; similar quantities of each sample; coding of samples; hygiene; timing; where testing takes place; dietary considerations; etc.*

- **Selected dish/product**

**Selected products**

**= 4**

**Sources: 2 sources @ 2 marks**

**= 4**

#### Preparation and Planning

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

**= 8**

**Preference Ranking Test:** *6 trays, 6 glasses of water, 18 coded containers, 6 samples of food A, 6 samples of food B, 6 samples of food C, 6 score-cards, record sheet, pen; 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 i.e.**

## Preference Ranking Test (three products)

*Cook 3 pizzas*

*Code 18 containers, 6 containers with symbol □, 6 containers with symbol ◊, 6 containers with symbol ○; put pizza samples in each container; set up 6 trays numbered 1-6, each tray has one container labelled with symbol □, one container with symbol ◊, one container with symbol ○; testers follow instructions on score card; taste each sample; indicate preference by placing 1<sup>st</sup> choice beside sample most preferred, 2<sup>nd</sup> choice beside next preference, 3<sup>rd</sup> choice beside the one least preferred; scorecards are collected by recorder and results transferred onto prepared record sheet; assign each choice a score value e.g. 1<sup>st</sup> choice(3 points), 2<sup>nd</sup> choice(2 points), 3<sup>rd</sup> choice(1 point); when recording results calculate the score for each product – multiply the number of ticks in each box by the score value assigned to that choice; codes are revealed and results presented; results can be presented on bar chart/pie chart/table; 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 product used; sample temperature; uniformity of samples for testing; sufficient amounts; glass of water/or dry cracker included to cleanse the palate; importance of silence during testing; codes on each tray remain the same; codes used should not induce any bias among testers; people involved in testing should not be involved in coding and arranging of samples or collating results; etc. (key factors must refer to the actual test carried out)*

- **Safety and hygiene (one safety point @ 2 marks + one hygiene point @ 2 marks)** = 4

***Safety:** testers with allergies – product with nuts etc.; special diets e.g. coeliac etc.; products with additives/E- numbers; etc.*

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

## Evaluation (3 points @ 4 marks each) = 12

- **Implementation**

*Testing procedures used; key factors when conducting the test; safety and hygiene issues considered; problems encountered and suggested solutions; evaluate efficiency of work sequence; etc.*

- **Specific requirements of the assignment**

*Students should evaluate the results obtained for the Preference Ranking test and draw some conclusions. The factors that may contribute to the test results obtained should be analysed.*

## 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 any **four** assignments for examination.
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, and 5 **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/-4) under meals /dishes/products in investigation.
6. Dish selected shows ***few process skills*** - mark pro-rata
7. Dish selected **not fully compliant** with requirements e.g.
  - An ***uncooked dish*** selected where a cooked dish specified
  - Dish ***not suitable for assignment requirements*** – Assignment 2
  - The ***investigated method not used in making the chosen dish*** – Assignment 4
  - 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.

**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.*

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