



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate 2023

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.

Home Economics – Scientific And Social

Ordinary Level

Marking Scheme

Instructions to candidates

- Section A** 60 marks
Answer **ten** questions in this section.
Each question carries 6 marks.
- Section B** 180 marks
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.
- Section C** 40 or 80 marks
Answer **one** elective question or Question 4 (core) to include **part (a)** and either **part (b) or (c)**.
If you submitted *Textiles, Fashion and Design* coursework for examination, you may only attempt Question 2 from this section.

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.*

Grading Table

Grade	Elective 1, 3 and C4	Elective 2
1	288-320	252-280
2	256-287	224-251
3	224-255	196-223
4	192-223	168-195
5	160-191	140-167
6	128-159	112-139
7	96-127	84-111
8	< 71	0-83

Annotations-Home Economics 2023

Annotated marks should be placed near the correct/partial correct response. Colours of annotations may vary.

Annotation	Explanation
0	Zero marks awarded
✓ 1	One mark awarded
✓ 2	Two marks awarded
✓ 3	Three marks awarded
✓ 4	Four marks awarded
✓ 5	Five marks awarded
✓ 6	Six marks awarded
✓ 7	Seven marks awarded
✓ 8	Eight marks awarded
}	Blank page
F	Excess point awarded full marks
P	Excess point awarded partial marks
<	Point/work not attempted
A	Deduct mark
P1	Deduct 1 mark
P2	Deduct 2 marks
P3	Deduct 3 marks

P4	Deduct 4 marks
P5	Deduct 5 marks
P6	Deduct 6 marks
P7	Deduct 7 marks
P8	Deduct 8 marks
P9	Deduct 9 marks
P10	Deduct 10 marks
MMS	Modified marking scheme

In Section C, candidates are required to answer one question in this section. Question C2 relates to the Textile, Fashion and Design elective. Where a candidate answers C2 and another question from C1, C3, or C4, the examiner applies a discount mark so that only the greatest mark is counted towards the paper total. The annotation A is used to indicate that a discount mark is being applied. For example, to apply a discount mark of -23 an examiner would place the A, P10, P10, P3, to apply -10 -10, -3 = total -23.

Section A

Answer any **ten** questions from this section.
Each question carries 6 marks.

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

3 @ 2 marks (graded 2:0)

	True	False
Polyunsaturated fatty acids are present in oily fish	✓	
Lipids (fats) contain the element nitrogen		✓
Adipose tissue protects delicate organs in the body	✓	

2. List **three** factors that influence the energy requirements of adults.

3 @ 2 marks (graded 2:1:0)

body weight; body size; gender, men differ from women; pregnancy, lactation; age, older people need less; climate, need less in warm weather; physical activity; growth spurts; occupation, physical worker needs more; basal metabolic rate (BMR); sedentary lifestyle; health status; etc.

3. Use the words below to complete the following statements in relation to protein.

albumin

coagulate

aeration

3 @ 2 marks (graded 2:0)

When eggs are heated, protein chains **coagulate**.

Aeration occurs when egg whites are whisked.

Albumin is a protein present in the white of an egg.

4. State **two** functions of iron in the body.

2 @ 2 marks (graded 2:1:0)

essential in formation of pigment haemoglobin in red blood cells; haemoglobin transports oxygen around the body; prevents anaemia; iron produces myoglobin which carries oxygen to the muscles; necessary for the efficient functioning of enzymes to release energy from food; etc.

Name **one** dietary source of iron.

1 @ 2 marks (graded 2:1:0)

meat; meat products; offal; poultry; eggs; cereals; green vegetables; fish; etc.

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

3 @ 2 marks (graded 2:0)

	True	False
Carbohydrate is converted into glucose during digestion	✓	
Bile is produced in the stomach		✓
Enzymes are proteins essential for digestion	✓	

6. In relation to cereals, name **one** different food product made from each of the following:

3 @ 2 marks (graded 2:0)

Cereal	Food product
Wheat	<i>pasta; breakfast cereals; bread; etc.</i>
Rice	<i>rice cakes; rice krispies; long grain rice; wholemeal/brown rice; rice paper; etc.</i>
Maize/Corn	<i>corn oil; popcorn; cornflakes; etc.</i>

must be a different food product, e.g. allow one breakfast cereal only.

7. Outline **three** different ways a teenager can increase the amount of fibre in their diet.

3 @ 2 marks (graded 2:1:0)

add bran to breakfast cereals; increase intake of fruit/vegetables; avoid peeling fruit and vegetables; eat skins of fruit and vegetables; eat brown bread/pasta/rice; add seeds and nuts to food; use brown flour instead of white flour; etc.

8. Name **one** different raising agent suitable for each of the following baked products.

3 @ 2 marks (graded 2:1:0)

Baked products	Raising agent
Sponge cake	<i>air; self-raising flour; etc.</i>
Bread	<i>bread soda; yeast; air; baking powder; etc.</i>
Lemon drizzle cake	<i>baking powder; air; etc.</i>

9. Outline **three** guidelines to follow when using grilling as a method of cooking.

3 @ 2 marks (graded 2:1:0)

preheat grill or barbeque to required temperature; use tongs to turn food; oil grill, grid to prevent food sticking; seal surface of food with high heat; suitable for thin pieces of food; do not salt food before grilling; suitable cooking time to avoid overcooking; etc.

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

3 @ 2 marks (graded 2:0)

	True	False
Supplementary welfare allowance is means tested	✓	
Child benefit is a universal welfare payment	✓	
Working family payment is available to employees on low pay with children	✓	

11. Name **one** type of credit available to consumers.

1 @ 2 marks (graded 2:1:0)

credit card; overdraft; term loan; hire purchase; mortgages; etc.

Outline **two** disadvantages of the type of credit named.

2 @ 2 marks (graded 2:1:0)

high rate of interest; easy to have too many credit agreements; easy to overspend; encourages impulse buying; goods may be repossessed; goods not owned until final payment is made; etc.

12. Describe **three** functions of textiles in the home.

3 @ 2 marks (graded 2:1:0)

warmth, insulation; comfort; protection; safety; absorbency; privacy; absorb sound; decoration; hygiene; etc.

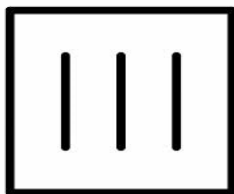
13. Outline **three** guidelines to follow when selecting a microwave oven.

3 @ 2 marks (graded 2:1:0)

consider cost e.g. initial, running; quality; family size/needs; brand; wattage; pre-programme settings; smart technology; space available; safety features; guarantee; reliability; design and construction; easy to operate; easy to clean; after sales service; etc.

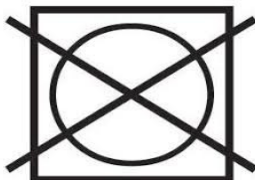
14. What information does **each** of the following fabric care symbols convey to the consumer?

2 @ 3 marks (graded 3:2:0)



drip dry

(www.beezzy.com)



do not tumble dry

(www.reddit.com)

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.

Question 1

‘Protein bars are a sector of the nutrition market that is rapidly expanding.’ (www.tastetech.com)

The table below shows nutritional information per 100 g, for three protein bars.

	Peanut & chocolate	Peanut & caramel	Crunchy peanut butter
Energy (kcal)	492 kcal	373 kcal	518 kcal
Protein	25.6 g	36.3 g	25 g
Carbohydrates	24 g	16 g	26 g
of which sugars	15 g	3 g	16 g
Fibre	13.6 g	16.1 g	14 g
Fat	30 g	15.9 g	12 g
of which saturated	9 g	8 g	5 g
Salt	0.95 g	0.73 g	0.59 g

- (a) Using the information presented in the table above, state which protein bar you would recommend for a young person who plays sport.
Give **four** reasons for your choice. (24 marks)

Name: 4 marks (graded 4:0), **Reasons: 4 @ 5 marks** (graded 5:4:3:2:0)

Peanut & chocolate: second highest kcal content for energy; second highest in protein for growth and repair; second highest in carbohydrate for heat and energy; lowest in fibre, healthy digestion; highest in saturated fat for heat and energy; highest in salt for electrolyte balance; second highest in sugar for energy; etc.

Peanut & caramel: lowest kcal content to prevent obesity; highest in protein for growth and repair; lowest in carbohydrate to prevent obesity/diabetes; lowest in sugar to prevent diabetes/tooth decay; highest in fibre for healthy digestion; second highest in salt for electrolyte balance; etc.

Crunchy peanut butter: highest kcal content for energy; lowest in protein for growth and repair; highest in carbohydrate for heat and energy; highest in sugar for energy; second highest in fibre for healthy digestion; lowest in saturated fat to prevent cholesterol build up; lowest in salt to prevent high blood pressure; etc.

(b) Give an account of protein under **each** of the following headings: (26 marks)

- **classification**

2 classes @ 3 marks (graded 3:2:0)

high biological value/animal protein; low biological value/vegetable/plant protein; simple proteins; conjugated proteins; etc.

- **dietary sources**

3 sources @ 4 marks (graded 4:2:0)

meat; fish; dairy products, milk, cheese, yogurt; eggs; soya beans; cereals; nuts; lentils; seeds; beans, peas; etc.

- **functions in the body**

2 functions @ 4 marks (graded 4:2:0)

growth; repair of body cells; manufacture of new cells; formation of muscle; skin; cell membranes; production of hormones; antibodies; enzymes; manufacture of blood plasma; etc.

(c) Explain the importance of including water in the diet of a person who plays sport. (10 marks)

2 points @ 5 marks (graded 5:3:0)

regulates body temperature; component of all body cells; removal of waste; quenches thirst; necessary for breakdown of food during digestion; transports nutrients, oxygen, carbon dioxide, hormones and enzymes around the body; provides minerals e.g. calcium, fluorine; etc.

(d) Discuss **four** guidelines consumers should follow to reduce household costs when planning and purchasing food. (20 marks)

4 guidelines @ 5 marks each (graded 5:3:0)

plan meals on a weekly basis; make out a shopping list; use meal planning apps; use cheaper cuts of meat; buy fresh fruit and vegetables; buy cheaper fish e.g. mackerel; use leftovers wherever possible; shop around for special offers; buy own brand goods; shop in larger discount supermarkets rather than small convenience stores; avoid expensive ready prepared convenience food; buy unpackaged food; buy in bulk; avail of loyalty schemes; etc.

Question 2

'17% of Irish consumers are now buying better quality beef.' (www.farmersjournal.ie)

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

4 points @ 5 marks (graded 5:4:3:2:0)

(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; haem iron easily absorbed; important for pregnant women, children, teenagers and menstruating women; etc.

- (b) Using meat as the main ingredient, design a two-course menu suitable for the main meal of the day for a family on a low income.

Give reasons for your choice of foods.

(20 marks)

Menu: 2 courses @ 4 marks (graded 4:2:0)

Sample menu

Spaghetti Bolognese

Apple crumble

3 reasons @ 4 marks (graded 4:2:0)

(1 point must refer to low income)

nutritive value; convenience; cost; personal preference; skills to make the dish; meat is high in protein, good for growth and repair; high in iron, good for pregnant women and teenage girls; balanced meal; easy to cook; quick to prepare; suitable equipment; easy to digest; etc.

- (c) Describe **two** different methods of tenderising meat.

(10 marks)

2 methods @ 5 marks each (graded 5:3:0)

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

Question 3

Safe food preparation and storage helps to prevent food waste in Irish households.

- (a) Discuss **four** kitchen hygiene practices that should be followed to ensure the safe preparation and storage of food. (16 marks)

4 points @ 4 marks (graded 4:2:0)

(1 reference to preparation, 1 reference to storage + 2 other points)

preparation: *avoid over-handling food; wash hands before handling food; frozen meat and poultry should be thawed fully before cooking; avoid having food out of fridge for lengthy periods during preparation; ensure surfaces and utensils are clean; have good lighting and ventilation; avoid cross contamination; etc.*

storage: *cover food before storage; check fridge/freezer temperature; check best before and use by dates; store perishable food below 5°C; store frozen food at -18°C; cool cooked foods before storage; store perishable and chilled cooked food in fridge; store ready-to-eat food separate to raw food; store raw food on base of fridge; avoid overpacking the fridge; etc.*

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

Refer to:

(26 marks)

- type of refrigeration appliance

1 type @ 2 marks (graded 2:1:0)

standard under the counter; larger fridge; fridge freezer; American fridge; retro style; integrated model; smart fridge; etc.

- guidelines for use

3 guidelines @ 4 marks (graded 4:2:0)

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; etc.

- care and cleaning

3 guidelines @ 4 marks (graded 4:2:0)

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; keep back of fridge dust free; if not in use, leave unplugged and open; etc.

- (c) Describe how technology has contributed to greater efficiency when planning and preparing family meals. (8 marks)

2 points @ 4 marks (graded 4:2:0)

timers lower fuel bills; electrical appliances save time, reduce workload; apps for planning menus; apps to look into fridge/smart fridge; easy clean worksurfaces; induction hobs; microwaves; slow cookers; air fryers; food processors; on-line shopping; etc.

Question 4

The family home is a base that provides comfort and security for family members.

(a) Explain how the following factors influence the family's choice when buying or renting a family home:

- family needs
- cost
- location
- trends in housing development.

(20 marks)

4 points @ 5 marks (grades 5:3:0)

family needs: *young children; greater outdoor space; study area; office space; separate bedrooms; special needs, physical disability; elderly parents; bathroom facilities; sufficient storage space; etc.*

cost: *money available/income; lending agency fees; legal fees; stamp duty; interest rate; cost of repayments; cost determines size and location; re-sale value of property; energy efficiency/BER rating; etc.*

location: *proximity to work, shops, schools; environmental factors; proposed developments in areas; rural or urban; amenities e.g. electricity, water, refuse; transport; local community, neighbours; privacy and security; possible risks e.g. pollution, flooding; etc.*

trends in housing development: *housing estates offer a range of house types; green open spaces; walled entrances; amenities; move away from single house developments; development of small, gated estates; buying old houses for refurbishment; redevelopment of inner-city houses; environmentally friendly houses; apartment living; passive houses with high energy rating-BER rating; etc.*

(b) Describe **three** advantages of having household insurance.

(15 marks)

3 advantages @ 5 marks (graded 5:3:0)

provides peace of mind; protects assets e.g. valuables; protection against loss or injury due to burglary; fires; flooding; security; public liability included; etc.

(c) Outline **three** different ways consumers can reduce pollution to protect the environment.

(15 marks)

3 ways @ 5 marks (graded 5:3:0)

use phosphate detergents; limit use of artificial fertilisers and pesticides; use renewable sources of energy; avoid using CFC's, choose pump action and ozone friendly products; use smokeless fuel; avoid using fossil fuels; use an electric car; walk or cycle more; use public transport; buy energy efficient appliances; compost food waste; upcycle clothing; choose biodegradable products; buy second hand items; recycle glass, paper, metal and plastics; reuse products; buy only what you will use; buy products with less packaging; avoid single use products; use a reusable water bottle; etc.

Question 5

'Ireland has officially been recognised as one of the best places to grow old.' (WHO)

- (a) Discuss **four** roles and responsibilities of older people within the family. (20 marks)

4 points @ 5 marks (graded 5:3:0)

roles: *spending time with their children/grandchildren; childcare; financial help for their families; emotional support for children/grandchildren; passing on values e.g. respect and life experiences; help with home maintenance; etc.*

responsibility: *grandparents often indirectly teach young people respect and can be a great emotional support for children or grandchildren; more relaxed with grandchildren and can be positive role models; etc.*

- (b) (i) Identify **two** causes of conflict between teenagers and adults.

2 causes @ 5 marks (graded 5:3:0)

teenagers question rules and authority; many take on part time jobs and parents feel they are not spending enough time at their study; teenagers seeking independence from parents; change in the family such as new baby or separation; sibling rivalry; discipline issues; poor communication; high parental expectations; schoolwork; social media/phone use; boyfriend/girlfriend; church/religion; personal appearance; smoking, alcohol, drug use; dishonesty; etc.

- (ii) Explain **two** ways of dealing with this conflict.

(20 marks)

2 ways @ 5 marks (graded 5:3:0)

good communication avoids confrontation; is important that everyone knows what is expected of them and where their boundaries lie; patience; understanding of others prevents conflict; younger people should appreciate the wisdom and experience of adults; appreciate both sides; do not ignore conflict; etc.

- (c) Outline **two** reasons why it is important for an older person to make a will.

(10 marks)

2 reasons @ 5 marks (graded 5:3:0)

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.

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) A contemporary bathroom design is shown below.



(www.victoriaplum.com)

(i) Evaluate the suitability of the bathroom space shown above for a couple with children.

(20 marks)

4 points @ 5 marks (graded 5:3:0)

large space to meet family needs; easy to keep clean; large walk-in shower; choice of bath or shower; modern in design; good ergonomics; laundry basket for dirty clothes; stacks of towels; hook to hang clothes on; large window; wall hung basin and toilet for ease of cleaning; large mirror; roman blind for privacy; shelves may be a hazard for small child; etc.

(ii) Discuss **three** factors which should be considered when choosing a heating system for the home.

(15 marks)

3 factors @ 5 marks (graded 5:3:0)

cost: *installation; running and maintenance; etc.*

energy efficiency: *is the source renewable; etc.*

convenience: *automatic timer that is easy to use; thermostat to control heating; smart technology; etc.*

comfort: *constant temperature; etc. safety: priority for family with young children; etc.*

water heating: *immersion with a timer to save electricity; instantaneous heaters; etc.*

aesthetic appeal: *underfloor heating; types of radiators; etc.*

impact on the environment: *gas and smokeless fuel produce less pollution; etc.*

(iii) Describe **three** guidelines to follow for the safe use of electricity in the home. (15 marks)

3 guidelines @ 5 marks (graded 5:3:0)

never mix electricity and water; do not use electrical appliances in the bathroom except shaver sockets; use pull cords for light switches; purchase only electrical appliances that carry recognised safety symbols; avoid overuse of adaptors and extension cables; check electric blankets for sign of wear; do not pull flexes across cooker hob or sink; repair damaged flexes; avoid trailing flexes; unplug appliances before cleaning them; replace broken plugs or sockets; always read and follow manufacturer's instructions; keep electric heaters away from curtains; unplug chargers after use; etc.

and

1.(b) 'A quarter of all energy used in Ireland is consumed directly in homes.' (www.seai.ie)

- (i) Describe **three** strategies that could be used to improve energy efficiency in the home. (15 marks)

3 strategies @ 5 marks (graded 5:3:0)

have house well insulated; service boiler regularly; set thermostats to correct temperature; use zone heating; use correct wattage bulbs; use LED bulbs; turn off lights when not in use; lag pipes and water cylinder; take showers instead of baths; have timer and thermostat on immersion; avoid washing under running tap; do not leave appliances on stand-by; use eco settings; use appliances at full capacity; buy A rated appliances; etc.

- (ii) Name **one** renewable energy source **and** outline the advantages of the energy source named. (15 marks)

Name: 5 marks (graded 5:3:0), **2 advantages @ 5 marks** (graded 5:3:0)

solar saves up to 68% on heating bills; plentiful supply of hot water for space and water heating; converts light from sun directly into electricity; no carbon dioxide emissions; grants available; increasing the property value by raising the BER; etc.

wood contributes to biomass; produces reasonable heat; etc.

wind unlimited; clean and non-polluting; low running costs; no emissions; etc.

hydropower very viable to operate in Ireland; running costs once the plant is set up are low; no emissions; etc.

bio energy suitable for heating homes and water; liquid biofuel can be used as a fuel for vehicles;

geothermal cost effective; grants available for installation; lower greenhouse gas emissions; reliable; etc.

or

- 1.(c) (i)** Describe the function of the following parts of a cold-water supply to a house:

- | | | |
|-----------------|--|------------|
| • stop cock | 1 function @ 5 marks (graded 5:3:0) | |
| • storage tank | 1 function @ 5 marks (graded 5:3:0) | |
| • overflow pipe | 1 function @ 5 marks (graded 5:3:0) | (15 marks) |

stopcock: special valve found on a service pipe outside the house/under the kitchen sink; allows the water supply to be shut off if there is a problem; etc.

storage tank: located in the attic at elevated level; improves pressure to supply the system; a ball valve controls the level of water in the tank; stores the cold water which supplies the cold-water to toilet, shower and hot press tank; etc.

overflow pipe: attic storage tanks are fitted with an overflow pipe leading to the outside of the house and carries excess water out of the house; if the ball valve fails to work it prevents flooding; etc.

- (ii) Outline **three** guidelines to follow to reduce water usage in the home. (15 marks)

3 guidelines @ 5 marks (graded 5:3:0)

toilet: install a dual flush toilet; a rainwater harvesting system linked to the water system can be used to flush toilets; etc.

taps: repair leaking taps; do not wash items under a running tap; do not leave taps running while washing teeth; use a basin in the sink rather than washing under a running tap; etc.

appliances: fill kettle with the amount of water needed; wait until the washing machine or dishwasher is full before turning on; use economy or eco wash cycle; etc.

water: use a shower instead of a bath; 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) ‘Music festivals bring new trends and a boost to the fashion industry.’ (www.guardian.com)



(www.pinterest.com)

(i) Comment on the suitability of the festival fashion shown above.

Refer to:

- comfort **2 points @ 3 marks** (graded 3:2:0)
- function **2 points @ 3 marks** (graded 3:2:0)
- aesthetic appeal. **2 points @ 3 marks** (graded 3:2:0) (18 marks)

comfort: fabric allows for ease of movement; stretching while maintaining shape; easy to remove shirt, jackets, sweatshirt; well-fitting shoes/ boots; etc. variety of colours; layered clothing; etc.

function: waterproof boots; long boots; knee length socks; sunglasses; long sleeve jacket; etc.

aesthetic appeal: relaxed look; layered look; may suit all shapes and sizes; appeal to younger people; etc.

(ii) Describe **one** method of applying a design to a garment. (7 marks)

1 points @ 4 marks (graded 4:2:0), **1 points @ 3 marks** (graded 3:2:0)

screen printing; roller printing; stencilling; transfer printing; embossing; embroidery; appliqué; etc.

and

2.(b) Textiles can be treated with a variety of fabric finishes.

(i) Explain why fabric finishes are used on fabric. (6 marks)

2 reasons @ 3 marks (graded 3:2:0)

to prevent creasing; prevent shrinkage; to give fabric desirable characteristics, e.g. waterproofing, stain resistant; to make the fabric hard wearing; improve safety; to improve wearing qualities; to prevent loss of colour; etc.

- (ii) Name **and** describe **one** fabric finish.
Give an example of its use in clothing. (9 marks)

Name: 4 marks (graded 4:2:0), **Description: 1 point @ 3 marks** (graded 3:2:0),
Example: 1 point @ 2 marks (graded 2:0)

waterproofing: *makes fabric water repellent, e.g. raincoats; etc.*

anti-static: *prevents fabric from clinging to the skin, e.g. dresses; etc.*

stain resistant: *makes fabrics easier to clean and keep clean, e.g. jackets; etc.*

crease resistant: *prevents fabrics from creasing, reducing the need for ironing, e.g. jackets; etc.*

mercerising: *makes the fabric stronger and more absorbent; e.g. jeans; etc.*

flame retardant: *proban reduces the flammability of a fabric, e.g. children's night wear; etc.*

or

2.(c) The future of fashion is in the hands of the designers.

- (i) Describe the contribution of Irish fashion designers to the clothing and textile industry. (9 marks)

3 points @ 3 marks (graded 3:2:0)

creates employment in manufacture, distribution and sales of textile and clothing industry; exports menswear, womenswear, children's wear, knitted goods, sportswear, accessories, lingerie and footwear; promotes Irish designers; etc.

- (ii) Describe **two** fashion accessories currently popular with trendsetters. (6 marks)

2 points @ 3 marks (graded 3:2:0)

bright coloured handbags; crossbody bags; large, framed glasses; sporty sunglasses; chunky platform shoes; beanie hats; baseball caps; gloves; scarves; belts; watches; chunky jewellery; etc.

Elective 3 – Social Studies – 80 marks

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

3.(a) 'The unemployment rate for persons aged 15-24 is 12.4%.' (Oct 2022, www.cso.ie)

(i) Define unemployment. (6 marks)

2 points @ 3 marks (graded 3:2:0)

not currently employed, jobless; unemployment is actively seeking work, available for work; etc.

(ii) Discuss the effects of unemployment on:

- the individual **2 points @ 4 marks** (graded 4:2:0)
- the family **2 points @ 4 marks** (graded 4:2:0)
- society. **2 points @ 4 marks** (graded 4:2:0) (24 marks)

the individual: *financial insecurity; drop in income leading to drop in living standards; poverty; mortgage arrears, homelessness, repossession of homes; social isolation; depression; addiction - drug/alcohol abuse; loss of identity/status; poor self-esteem; lack of money can prevent participation in leisure and social activities; loss of purpose and sense of direction; etc.*

the family: *decline in living standards due to reliance on welfare payments; unstable home; provision of basic needs may be difficult; families may become homeless or in need of emergency accommodation; relationship problems; marital breakdown; children may be unable to attend college due to lack of money; etc.*

society: *cost to the state to pay benefits; result in increased taxation; cycle of poverty continues; disenfranchised young people may become involved in anti-social behaviour; emigration; unstable communities; increase in family breakdown; increase in the black economy to supplement welfare allowance; unemployment blackspots; etc.*

(iii) Describe the role of education in preparing young people for the world of work. (12 marks)

3 points @ 4 marks (graded 4:2:0)

literacy skills; numeracy skills; computer skills; develop qualities e.g. respect for authority; punctuality; trustworthiness; responsibility; self-discipline; socialisation skills; work experience; etc.

(iv) Name **and** give details of **one** statutory scheme that provides support to people who are unemployed. (8 marks)

Name: 4 marks (graded 4:2:0), **Details: 1 point @ 4 marks** (graded 4:2:0)

social welfare assistance and benefits: *jobseeker's benefit; one-parent family payment; supplementary welfare allowance; working family payment; child benefit; back to school clothing and footwear allowance; housing assistance payment; national fuel scheme; book loan/rental scheme; medical cards; national minimum wage; MABS; Abhaile; etc.*

and

3.(b) 'Primary school education supports children's learning from junior infants to sixth class.' (NCCA)

- (i) Describe **three** different ways primary school education contributes to the development of the individual. (15 marks)

3 ways @ 5 marks (graded 5:3:0)

physical development: *playing with toys helps with manual dexterity e.g. jigsaws; practical subjects can improve fine and gross motor skills; development of hand/eye co-ordination; sport and physical education helps to build healthy bones/muscles and improve balance/fitness; etc.* **emotional development:** *young children gain emotional independence from parents, encourages maturity; feelings for themselves and others; learn to be sensitive to needs of others; supportive of others; expressing emotions; etc.*

intellectual development: *promoted through the wide range of subjects; extracurricular activities; classmates encourage competition; examinations provide challenges; resources e.g. books, computers assist development; provides stimulation and nurtures a learning environment; support for children with ALN's; etc.*

social development: *can be formal/informal; etc.*

- (ii) Discuss **three** factors that influence the educational achievement of school children. (15 marks)

3 factors @ 5 marks (graded 5:3:0)

intellectual ability; family size, home environment e.g. homework facilities; peers, can be positive or negative; local environment; school environment e.g. resources in school; RACE, accommodations in certificate examinations; access to computers/assistive technology, reader pens; SNA; resource teachers; small class size; educational programmes e.g. JCSP, LCA, LCVP, TY; LPL2; work experience; parental attitude to education; access to third level, HEAR, DARE; etc.

or

3.(c) Ireland has undergone many social and economic changes in the past 20 years.

- (i) Discuss the impact of social and economic changes on family life.
Refer to:

- reduction in working hours
 - increased participation of women in the workforce
 - equal pay and employment opportunities.
- (15 marks)

3 points @ 5 marks (graded 5:3:0)

reduction in working hours: *change of lifestyle; better work and family life balance; shorter working hours; more time to spend with families; parents can collect children from school; increase in physical activities resulting from more leisure time; less disposable income for family; etc.*

increased participation of women in the workforce: *family size tends to be smaller; dual income contributes to a higher standard of living; children spend more time in childcare; cost of childcare; may lead to stress, role conflict; women may experience role overload; teenagers become more responsible and share household chores; working mothers can be a positive role model for children; etc.*

equal pay and employment opportunities: *shorter working week/day; better hourly pay rates; more disposable income and a higher standard of living; defined holidays; sick leave; parental leave; paternity leave; adoptive leave; sick leave and sick pay; carer's leave; job sharing; flexitime; safe working environment; increased annual leave; jobs are becoming less gender specific e.g. nurses; greater opportunities for promotion; new positions in the employment market e.g. web designer, people work from home; etc.*

(ii) Outline **three** benefits of voluntary work to the community.

(15 marks)

3 benefits @ 5 marks (graded 5:3:0)

reduces reliance on state resources; can provide a quick service e.g. care of the elderly; friendships and bonds can be formed; creates a sense of community spirit; provides new skills in an area; complements work carried out by statutory bodies; provides an unfunded service; offers a more personal local service; attention focused on local/social issues; etc.

Question 4 – Core – 80 marks

Candidates selecting this question must answer **4(a)** and either **4(b)** or **4(c)**.

4.(a) 'It is estimated that up to 300,000 people in Ireland have osteoporosis.'

(www.irishosteoporosis.ie)

- (i) Give an account of (i) the causes of osteoporosis and (ii) the effects of osteoporosis on the body. (20 marks)

4 points @ 5 marks (graded 5:3:0)

(1 cause, 1 effect, plus 2 others)

causes: *lack of calcium rich foods in the diet from an early age; lack of vitamin D; low levels of oestrogen in postmenopausal women; eating disorders; low testosterone in men; lack of weight bearing exercise; smoking; medications e.g. for rheumatoid arthritis and psoriasis; medical conditions e.g. some cancers; too much alcohol; thyroid conditions; hereditary; risk increases with age; etc.*

effects: *fragile/brittle bones; bone fractures; back/neck pain; loss of height; curved spine; rounded shoulders; loss of bone density/bone mass; tooth decay; etc.*

- (ii) Evaluate **three** lifestyle and/or dietary guidelines to follow in order to prevent osteoporosis. (15 marks)

3 guidelines @ 5 marks (graded 5:3:0)

lifestyle: *exercise regularly, especially weightbearing exercise; do not smoke; limit alcohol intake; have regular bone density scans; consider HRT for post-menopausal women; get enough sunshine; etc.*

dietary: *increase intake of vitamin D; increase phosphorus rich foods; increase intake of calcium; increase intake of vitamin C; take calcium and vitamin D supplements; balance protein intake, too much or too little can have an effect on bone density; avoid calcium absorption inhibitors, e.g. excessive fibre, tannins; etc.*

- (iii) Discuss the role of food labelling as a source of consumer information for people following a special diet. (15 marks)

3 roles @ 5 marks (graded 5:3:0)

helps consumer make an informed decision about purchasing foods; informs consumer on information on nutrients, people opt for more nutritious alternatives; allergens listed reduces the risk of suffering an allergic reaction; additives; genetic modifications; etc. ingredients listed in descending order of weight; help to choose the more nutritional options; name and address of manufacturer; quality assurance e.g. Bord Bia mark; organic produce; etc.

and

4.(b) Money management is an important life skill.

(i) Identify **and** explain **three** factors that affect household income. (15 marks)

3 factors @ 5 marks (graded 5:3:0)

age: *income tends to increase as people get older, reduced income on retirement, teenagers can get part time jobs to ease the financial burden; etc.*

gender: *equal pay for all, some managerial positions still male dominated; etc.*

social class: *some students from lower socio-economic backgrounds leave school early without qualifications, may lead to unemployment; middle class backgrounds generally better educational opportunities, more likely to gain qualifications leading to better paid jobs; etc.*

lower socio-economic group: *many receive social welfare payments; etc.*

cultural factors: *different cultures value income differently; some cultures determine whether women can work outside the home; etc.*

(ii) Describe **three** benefits of setting up a family budget plan. (15 marks)

3 benefits @ 5 marks (graded 5:3:0)

areas of overspending identified; provides financial security; alleviates worry and stress as bills will be paid; know where all monies are going; provides for emergencies; allows for savings; encourages people to wait until they have the money to buy something; develops money management skills; avoids debt; avoid impulse buying; budgeting reduces reliance on credit; etc.

or

4.(c) 'Family roles shape how we interact with each other in the family.' (www.innerchange.com)

(i) Discuss how the role of the adolescent has changed in the modern family. (15 marks)

3 points @ 5 marks (graded 5:3:0)

take on extra responsibilities; helping with minding siblings; cooking family meals; more input into family decision making; role model to siblings; have part time jobs; assisting with care of elderly; etc.

(ii) Explain how the family supports the physical and emotional development of children. (15 marks)

3 points @ 5 marks (graded 5:3:0)

physical: *provides basic needs e.g. food, clothes, shelter; protects vulnerable members by providing a safe environment; etc.*

emotional: *provides a safe and secure place to discuss feelings; help children to develop good self-esteem; assists children in forming healthy relationships; parents are role models; etc.*



Coimisiún na Scrúduithe Stáit

Marcanna Breise as ucht freagairt trí Ghaeilge

Léiríonn an tábla thíos an méid marcanna breise ba chóir a bhronnadh ar iarrthóirí a ghnóthaíonn níos mó ná 75% d'iomlán na marcanna.

N.B. Ba chóir marcanna de réir an ghnáthrata a bhronnadh ar iarrthóirí nach ghnóthaíonn níos mó ná 75% d'iomlán na marcanna don scrúdú. Ba chóir freisin an marc bónais sin a **shlánú síos**.

Tábla 320 @ 10%

Bain úsáid as an tábla seo i gcás na n-ábhar a bhfuil 320 marc san iomlán ag gabháil leo agus inarb é 10% gnáthrata an bhónais.

Bain úsáid as an ngnáthrata i gcás 240 marc agus faoina bhun sin. Os cionn an mharc sin, féach an tábla thíos.

Bunmharc	Marc Bónais
241 - 243	23
244 - 246	22
247 - 250	21
251 - 253	20
254 - 256	19
257 - 260	18
261 - 263	17
264 - 266	16
267 - 270	15
271 - 273	14
274 - 276	13
277 - 280	12

Bunmharc	Marc Bónais
281 - 283	11
284 - 286	10
287 - 290	9
291 - 293	8
294 - 296	7
297 - 300	6
301 - 303	5
304 - 306	4
307 - 310	3
311 - 313	2
314 - 316	1
317 - 320	0



Coimisiún na Scrúduithe Stáit

Marcanna Breise as ucht freagairt trí Ghaeilge

Léiríonn an tábla thíos an méid marcanna breise ba chóir a bhronnadh ar iarrthóirí a ghnóthaíonn níos mó ná 75% d'iomlán na marcanna.

N.B. Ba chóir marcanna de réir an ghnáthrata a bhronnadh ar iarrthóirí nach ghnóthaíonn níos mó ná 75% d'iomlán na marcanna don scrúdú. Ba chóir freisin an marc bónais sin **a shlánú síos**.

Tábla 280 @ 10%

Bain úsáid as an tábla seo i gcás na n-ábhar a bhfuil 280 marc san iomlán ag gabháil leo agus inarb é 10% gnáthrata an bhónais.

Bain úsáid as an ghnáthrata i gcás 210 marc agus faoina bhun sin. Os cionn an mharc sin, féach an tábla thíos.

Bunmharc	Marc Bónais
211 - 213	20
214 - 216	19
217 - 220	18
221 - 223	17
224 - 226	16
227 - 230	15
231 - 233	14
234 - 236	13
237 - 240	12
241 - 243	11
244 - 246	10

Bunmharc	Marc Bónais
247 - 250	9
251 - 253	8
254 - 256	7
257 - 260	6
261 - 263	5
264 - 266	4
267 - 270	3
271 - 273	2
274 - 276	1
277 - 280	0



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Home Economics – Scientific and Social

Food Studies Coursework

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. Information must be presented under the appropriate headings.*

Grading Table

Grade	Mark bands
1	144-160
2	128-143
3	112-127
4	96-111
5	80-95
6	64-79
7	48-63
8	≤ 47

Food Studies Practical Coursework General Marking Criteria

Investigation: Analysis/Research - 32 marks

Research and Analysis

(24 marks)

Band A 19 – 24 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 13 – 18 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 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 marks)

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 (graded 2:1:0)

(4 marks)

Preparation and Planning	8 marks
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Resources:

- ingredients (2 marks), quantities (2 marks), costing (2 marks), equipment (2 marks)
- AOP E – product/s (2 marks), equipment (6 marks)

Implementation	28 marks
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Outline of the procedure followed to include food preparation processes, cooking time, temperature, (accept boiling/simmering here) serving/presentation, tasting/evaluation. **(16 marks)**
(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 **2 points @ 4 marks** (graded 4:3:2:0) **(8 marks)**

(must relate to specific dish/test)

Identification (2 marks) and **clear explanation of importance** (2 marks) of **two factors** considered which were **critical to the success of the dish/test**.

Safety/Hygiene **2 points @ 2 marks** (graded 2:1:0) **(4 marks)**

(must relate to specific ingredients being used/dish being cooked)

Identification (1 mark) and **explanation** (1 mark) of **one** key safety issue **and one** key hygiene issue considered when preparing and cooking dish/conducting test.

Evaluation	3 points @ 4 marks	12 marks
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Evaluate the assignment in terms of: (graded 4:3:2:0)

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.

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

Toddlers and pre-schoolers have very high nutritional requirements relative to their size. Dietary habits which can last a lifetime are formed during this critical phase. (FSAI)

Research and elaborate on the nutritional needs and the meal planning guidelines that should be considered when planning and preparing meals for children aged between one and five years.

Having regard to the factors identified in your research, 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.

2023

Key requirements of the assignment:

*Dietary/nutritional needs when planning meals for **children aged between 1 and 5 years***

*Relevant meal planning guidelines with specific reference to **children aged between 1 and 5 years***

Menu for one day (three meals and snacks)

Investigation

Dietary/Nutritional needs: *nutritional balance; physical growth increases the need for intake of all nutrients; daily requirements of macro/micro nutrients including protein/carbohydrates/fat/iron/calcium requirements as appropriate to 1-5 year olds with reasons for possible variations; high fibre; water intake; interrelationship of vitamins & minerals e.g. 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; variety; eat 3 balanced meals & healthy snacks each day; involve children in choosing new foods; offer small portions; offer new foods with well-liked foods; use foods in season; avoid adding sugar to foods; avoid unhealthy snack & processed foods i.e. high in salt, saturated fat & sugar; include porridge/muesli instead of processed sugar/chocolate coated cereals; include breakfast cereals fortified with Vitamin D & iron; mixture of white & wholemeal cereals & breads; small portions of chopped fruit & vegetables given throughout day; include different coloured fruit/veg; limit dried fruit; avoid adding salt to foods & when cooking; select lean unprocessed meats; consider likes and dislikes; don't use high sugar foods/desserts as treats/bribes; avoid spicy foods; include beans & lentils; liquidise vegetables with meat and sauces; grate or finely dice vegetables & add to main course dishes; foods should be easy to chew & digest; use sauces to soften meat; foods should be easy to handle; cut foods into shapes; offer finger foods to allow younger children feed themselves; replace sugary drinks with water and milk; dilute fruit juices; avoid caffeine drinks; serve meals at regular times; avoid frying foods; remove bones from fish; packed lunches in cool bag/chilled; eggs fully cooked; avoid skimmed milk, almond, coconut & rice milk; etc.*

Dishes selected - menu for one day (3 meals and snacks) (graded 4:3:2:1:0)

- must meet the nutritional requirements for 1-5 year olds

must be a main course dish from menu

Evaluation (a) implementation and **(b)** the specific requirements of assignment

Analysis of findings regarding the dietary/nutritional requirements when planning meals for children aged between 1-5 years.

Meal planning guidelines – range of foods/dishes suitable when planning meals for 1-5 year olds etc., how the selected dish meets the requirements as identified in the investigation; etc.

Assignment 2

Natural declining muscle mass can lead to the loss of strength and as a result people become less mobile.

With reference to the above statement, identify the causes of muscle mass loss and strength loss. Research and elaborate on the nutritional needs and the meal planning guidelines that should be considered when planning meals in order to prevent/slow down the loss of muscle mass and maintain a healthy body weight.

Having regard to these considerations, suggest a range of **two-course menus** suitable for the main meal of the day for this group of people.

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

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

2023

Key requirements of the assignment:

Causes of muscle mass loss & strength loss

*Dietary/nutritional requirements when planning meals **in order to prevent/slow down the loss of muscle mass** and maintain a healthy weight*

*Relevant meal planning guidelines **to prevent/slow down the loss of muscle mass** and maintain a healthy weight*

Range of two course menus suitable for the main meal of the day

Investigation

Causes of muscle mass loss & strength loss: *aging; lack of physical activity; low calorie, low protein diet; inflammation; cancer & cancer treatment; stroke; low testosterone levels; IBS; Coeliac disease; excessive*

alcohol consumption; burns; spinal cord/neuropathy illnesses & injuries; severe stress; etc.

Dietary / Nutritional requirements: *nutritional balance; daily requirements of macro/micro nutrients including protein to maintain & build muscle mass; aim for 25-30g protein in every meal; CHO/fat/iron/calcium requirements with reasons for possible variations; high fibre; interrelationship of vitamins & minerals e.g. Vitamin C/iron absorption; Vitamin D/calcium absorption; omega 3 fatty acids; Vitamin D intake; energy balance vis a vis activity levels; current nutritional guidelines re nutrient and food intake; etc.*

Meal planning guidelines: *use of food pyramid to ensure balance; variety of foods; personal likes & dislikes; balance food intake with physical activity; use foods in season; correct fluid intake; 3 balanced meals with high protein; fibre rich snacks; high fibre foods; avoid processed foods – high in salt, saturated fat & sugar; choose fortified foods; healthy snacks high in protein; include spinach, quinoa for growth of lean muscle; add chopped*

nuts to snacks, salads, breakfast cereals; use milk powder to boost calcium, protein & calorie content; avoid heavy sauces, fried foods & excess sugar when adding protein to diet; avoid deep fried foods; include range of different coloured fruit & vegetables; etc.

Dishes selected - **range of two course menus** (graded 4:3:2:1:0)
- **must meet the nutritional requirements for person trying to prevent/slow down muscle mass loss & maintain a healthy weight**
- **must be a main course**

Evaluation (a) implementation and **(b)** the specific requirements of the assignment

Analysis of findings regarding what you learned from the investigation regarding the management of a diet in order to prevent/slow down loss of muscle mass & strength & maintain a healthy weight; factors to be considered when planning meals to prevent/slow down loss of muscle mass & strength and maintain a healthy weight 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; et

Area of Practice B: Food Preparation and Cooking Processes

Assignment 3

Gelatine (gelatin) is a versatile setting agent which can be utilised in sweet and savoury dishes.

Carry out research on gelatine with reference to **each** of the following:

- the types of gelatine available
- how gelatine is used in food preparation
- dishes that illustrate the use of gelatine
- the key points that should be observed to ensure success when using gelatine.

Prepare and make one of the dishes from your research.

Evaluate the assignment in terms of **(a)** implementation and **(b)** the advantages and/or the disadvantages of using gelatine.

2023

Key requirements of the assignment:

types of gelatine available

how gelatine is used in food preparation

dishes that illustrate the use of gelatine

the key points that should be observed to ensure success when using gelatine

chosen dish using gelatine

Investigation

Types of gelatine available: powdered gelatine; leaf (sheet) gelatine; agar-agar; isinglass; etc.

How gelatine is used in food preparation: **Powdered gelatine:** sprinkle powder in a bowl containing 2-3 tablespoons of liquid (water/recipe's liquid); stir & leave until gelatine soaks up liquid until spongy; place bowl in saucepan of barely simmering water; allow gelatine to dissolve fully & turn transparent; strain to remove bits of skin formed; allow to cool to hand hot temperature; add to mixture in steady stream stirring well; quick method using microwave; etc.; **Leaf gelatine:** soak in cold water; if soaking more than one sheet, separate in water; completely cover sheets; soak until gelatine blooms (expands) & becomes wrinkly; several sheets take longer; remove gelatine from water; wring gently to remove excess water, melt slowly over gentle heat (35°C); stir into ingredients gradually; gelatine may be used for thickening, setting, glazing, clarifying; etc.

Dishes that illustrate the use of gelatine: cold soufflés; mousses; cheesecakes; bavarois; panna cotta; ice cream; marshmallows; blancmange; cream trifles; jelly chews; paté; meat moulds/terrines; jellies (sweet and savoury); etc.

Key points that should be considered to ensure success when using gelatine: use lowest temperature possible to dissolve gelatine & heat for shortest time; boiling destroys gelatine's ability to set; bloom gelatine with cold liquids; add dissolved gelatine to a warm base to stop gelatine 'roping'; gelatine takes twice as long to dissolve if using milk or cream; do not use fruits containing proteolytic enzymes e.g. pineapple, kiwi, ginger, figs – prevent gelatine from setting – cook fruit to deactivate enzyme or use canned versions; too much sugar can inhibit setting ability; dairy products strengthen gelling process; salt, fruit juices & wine (pH below 4) lower strength of gelatine, increase quantity of gelatine used; leaf gelatine if not soaked properly, setting of product will be reduced; do not soak leaf gelatine for too long – it starts to break down reducing setting ability; chill mixture to consistency of cold egg white before adding gelatine to help suspend fruits, meats, vegetables; drain all solids of their liquid before adding gelatine; add gelatine from a height & stir to avoid streaks of gelatine forming; chill dish for min. of 8 hours; to un-mould easily – before filling spray mould with oil, rinse with cold water, when unmoulding dip mould in warm water for 5-10 seconds; store gelatine dishes in covered container to avoid rubbery skin forming; etc. **Dish selected – must show the use of gelatine**

1 dish @ 4 marks. (one dish sweet or savoury) (graded 4:2:0)

Evaluation (a) implementation and **(b)** the advantages and/or the disadvantages of using gelatine

Area of Practice C: Food Technology

Assignment 4

Different types and flavours of breads are growing in popularity due to Irish consumers' changing needs and desires. (Bord Bia)

Carry out research on the different types of breads currently popular with Irish consumers.

Investigate two different methods of bread making and explain the underlying principles in each method.

Using one of the methods researched, prepare and bake one type of bread.

Describe the packaging and labelling you would recommend for storing the bread in order to keep it fresh and presented attractively.

Evaluate the assignment in terms of **(a)** implementation and **(b)** practicability of making bread at home and **(c)** cost comparison with a similar commercially available product.

2023

Key requirements of the assignment:

research types of breads currently popular with Irish consumers

investigate two different methods of bread making

underlying principles involved in each case

suitable packaging & labelling

Investigation

Different types of breads currently popular: *traditional brown/white soda bread; yeast breads (savoury & sweet); savoury breads (tomato/onion/herb/cheese); sweet breads (apple/banana/cinnamon/chocolate); gluten free breads; sourdough breads; spelt breads; low GI breads; seeded & multigrain breads; flat breads; rye breads; beer breads; potato breads; etc.*

Methods of bread making and the underlying principles in each case

Rubbed in method/wet method/all in one method: *using bread soda, baking powder, yeast.*

Rubbed in method: *air is introduced mechanically by sieving dry ingredients, rubbing in fat; etc.*

Wet Method/all in one method: *all ingredients are beaten together; etc.*

Bread soda: *bicarbonate of soda (alkali) mixed with buttermilk/sour milk (acid & liquid) produces CO₂; etc.*

Baking powder: *bicarbonate of soda (alkali) + cream of tartar (acid) + milk/water (liquid) produces CO₂; etc.*

Underlying Principle: *Heat of oven causes CO₂ to expand & rise, pushing up mixture; gluten becomes elastic when moistened allowing dough to rise when CO₂ expands; heat of oven causes coagulation of gluten; starch grains absorb water, swell, burst & gelatinise; causing bread structure to become firmer; Maillard reaction occurs contributing to browning; surface starches change to dextrins, forming a crust on the bread; bread can be made using all in one/wet method; etc.*

Yeast: *fermentation process - yeast breaks down sugar forming CO₂ & alcohol, occurs in absence of oxygen; CO₂ is used for rising of bread, alcohol is evaporated into atmosphere; in flour, enzyme diastase converts starch into maltose; in yeast, enzyme maltase converts maltose into glucose, enzyme invertase converts sucrose into glucose and fructose, enzyme zymase converts glucose & fructose into CO₂ & alcohol; gluten becomes elastic & dough expands during proving; CO₂ gas is trapped, which upon **heating**, expands & rises; yeast is killed by high temperatures of the oven & the rising process stops, gluten sets; temperature reduced to cook product; etc.*

Air: *air can be introduced by sifting, rubbing in, creaming, folding, beating & kneading; air is entrapped in the mixture by physical means, air expands when **heated**, rising the bread & creating light texture; etc.*

Suitable packaging: *perforated plastic bag; paper bag; zip lock bag; plastic/tin/cardboard containers; decorative baking liners; ties; ribbons; etc. **if no packaging investigated -3 marks***

Labelling: *name; date; ingredients; etc.*

Dish selected: *- name bread - method investigated in the research (graded 4:2:0)*

Evaluation (a) implementation, **(b)** practicability of making bread at home – *resource issues: time, skills, equipment, packaging, storing, availability of ingredients; etc. (c) cost comparison with a similar commercially available product.*

Area of Practice E: Comparative Analysis including Sensory Analysis

Assignment 5

The availability of a wide range of types, brands and flavours of yoghurt on shop shelves ensures there is plenty of choice for consumers.

Carry out research on the different types, brands and flavours of yoghurt available (refer to type, brand, flavour, sugar content, fat content and cost).

Using three different brands of the same type and flavour of yoghurt, carry out a **preference ranking test** to determine which brand of yoghurt is the preferred choice within your group.

Evaluate the assignment in terms of **(a)** implementation and **(b)** the test results obtained. 2023

Key requirements of the assignment:

research different types of yoghurt available (i.e. types, brands, flavours, sugar content, fat content and cost)

preference ranking test

conditions to be controlled during testing

selected products of your choice (different brands of yoghurt, same type and same flavour)

Investigation

(24 marks)

Research / investigation of the products appropriate to the testing

i.e. investigate the different types & brands of yoghurt available i.e. refer to types, brands, flavours, sugar content, fat content, cost; etc.

Preference Ranking Test

Description: *tester is presented with 3 coded samples of yoghurt, 3 different brands, same type and same flavour; tester ranks samples in order of preference; etc.*

Aim of test: *to determine which of the three brands of yoghurt, **the same type and flavour** is preferred by testers; etc.*

Possible outcomes: *to assign an order to the samples of yoghurt according to testers' preference; etc.*

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 samples; similar quantities of each sample; coding of samples; timing of test; where testing takes place; setting

of trays; hygiene; dietary considerations; etc.

Selected dish / product

Selected products – *3 different brands of yoghurt that are same type and same flavour*

(4 marks)

Sources: 2 @ 2 marks

(4 marks)

Preparation and Planning

(8 marks)

Resources (2 marks) *graded (2:1:0)*

Testing equipment needed to carry out assignment (6 marks) *graded (6:5:4:3:2:1:0)*

Preference Ranking Test – *6 trays; 6 glasses of water; 18 coded containers; 6 samples of yoghurt A; 6 samples of yoghurt B; 6 samples of yoghurt C; 6 scorecards; spoons; record sheet; pens; etc.*

Number determined by the testing group size.

Implementation

(16 marks)

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.

Preference Ranking Test (three products)

Based on 6 Testers:

Code 18 containers, 6 coded with symbol ■, 6 coded with symbol ● and 6 coded with symbol ▲; put yoghurt samples in each container; set up 6 trays numbered 1-6; each tray has one container labelled with symbol ■, one container with symbol ● and one container with symbol ▲; testers follow instructions on score card; taste each sample; indicate preference by placing 1st choice beside sample most preferred, 2nd choice beside next preference, 3rd choice beside the one least preferred; scorecards are collected by recorder & results transferred onto prepared record sheet; assign each choice a score value e.g. 1st choice (3 points), 2nd choice (2 points) and 3rd choice (1 point) – these values can be different; 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 & results presented; results can be presented on bar chart/pie chart/table; tidy; wash up; evaluate results; etc.

Key factors to ensure success of the test (2 @ 4 marks each) (graded 4:2:0)

(8 marks)

*Key factors that may be considered in order to ensure success in this assignment include – **conditions controlled** during testing – coding; choice of products used; samples temperature; uniformity of samples for testing; sufficient amounts; glass of water and/or dry crackers included to cleanse 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 samples or collating results; etc.*

Safety and hygiene (one safety @ 2 marks + one hygiene @ 2 marks) (graded 2:1:0)

(4 marks)

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

*Good **hygiene** practice with regard to: preparation area and the testing area; use separate spoons for testing*

each sample to avoid contamination; handling of samples – use of plastic gloves/disposable glasses; etc.

Evaluation

(3 points @ 4 marks each) (graded 4:3:2:0)

(12 marks)

Implementation

Evaluate the implementation of the test with reference to the key factors to ensure its success; problems encountered and suggested solutions; etc.

Specific requirements of the assignment

Results should be evaluated and conclusions drawn; accept an analysis of the factors that may have contributed to the test results obtained i.e. why testers preferred a particular brand; why they were ranked in that order of preference; etc.

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 assignments for 2023 as a result of adjustments.
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 – Assignment 1,2, 4
 - ✓ dish **not suitable for assignment requirements** – Assignment 1 and 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 dish; no marks to be awarded for the dish.

