



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

**Leaving Certificate 2015**

**Marking Scheme**

**Home Economics – Scientific and Social**

v2

**Higher 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.



# Coimisiún na Scrúduithe Stáit State Examinations Commission

Leaving Certificate Examination, 2015

## HOME ECONOMICS – SCIENTIFIC AND SOCIAL HIGHER LEVEL

### Written Examination

**280/320 MARKS**

### Marking Scheme

#### *Instructions to Candidates*

- Section A** There are **twelve** questions in this section.  
Candidates are required to answer any **ten** questions.  
Each question carries **6** marks.
- Section B** There are **five** questions in this section.  
Candidates are required to answer **Question 1 and any other two questions.**  
**Question 1** is worth **80** marks.  
**Questions 2, 3, 4 and 5** are worth **50** marks each.
- Section C** There are **three** questions in this section.  
Candidates are required to answer **one** elective question to include  
**part (a)** and either **part (b) or part (c).**  
Electives **1 and 3** are worth **80** marks each. Elective **2** is worth **40** marks.

#### *In developing the marking schemes the following should be noted:*

- *In many cases only key phrases are given which contain information and ideas that must appear in the candidate's answer in order to merit the assigned marks*
- *The descriptions, methods and definitions in the scheme are not exhaustive and alternative valid answers are acceptable*
- *The detail required in any answer is determined by the context and the manner in which the question is asked, and by the number of marks assigned to the answer in the examination paper. Requirements and mark allocations may, therefore, vary from year to year.*
- *Words, expressions or phrases must be correctly used in context and not contradicted, and where there is evidence of incorrect use or contradiction, the marks may not be awarded.*

## Section A

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

Each question is worth **6** marks.

Write your answers in the spaces provided.

1. Explain protein deamination. (6)

*This is the process by which **excess** protein is used for energy; occurs when excess amino acids are broken down by the liver; the amino group (NH<sub>2</sub>) is converted to ammonia, then to urea and then excreted by the kidneys as a waste product in urine; the carboxyl group (COOH) is oxidised and used to produce heat and energy; etc.*

2. Complete the table below in relation to carbohydrates. (6)

Class	Example	Food source
<b>Monosaccharides</b>	<i>Glucose Fructose Galactose</i>	<i>Fruit Honey Digested milk</i>
<b>Disaccharides</b>	<i>Lactose Maltose Sucrose</i>	<i>Milk Barley Table sugar</i>
<b>Polysaccharides</b>	<i>Starch Cellulose Pectin Glycogen</i>	<i>Bread; cereals; pasta; potatoes; Whole cereals; fruit and vegables; Fruits Meat</i>

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

- (i) *transporting nutrients, oxygen, enzymes and hormones around the body;*
- (ii) *removal of waste products from the body, e.g. from the kidneys;*
- (iii) *contains the minerals calcium and fluorine; controls body temperature through perspiration; significant in the hydrolysis of nutrients during digestion; essential element of all body fluids and tissues; etc.*

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

### **Smoke point**

*Lipids begin to decompose into glycerol & 3 fatty acids; heating past its smoke point fat starts to break down; a blue haze emerges; an acrid-smelling compound known as acrolein is present; fats smoke point 200°C; oils 250°C; etc.*

### **Flash point**

*Lipids spontaneously burst into flames; fats at 310°C; oils at 325°C; the decomposition of the lipids continues; etc.*

5. State the nutritional significance of **each** of the following parts of the wheat grain. (6)

*Accept relevant nutrient and its function*

	<b>Nutritional significance</b>
<b>Bran</b>	<i>Made up of layers of cellulose which are an excellent source of roughage; aids digestion by stimulating peristalsis; non-haem iron to make haemoglobin for healthy blood; calcium for bones; Vitamin B for the release of energy; phosphorous for healthy bones and teeth; etc.</i>
<b>Endosperm</b>	<i>Starch for energy; protein (gluten) for growth; Vitamin B for metabolism, healthy nervous system; etc.</i>
<b>Germ</b>	<i>Fat for energy; Vitamin B for healthy nerve activity; Vitamin E anti-oxidant to help prevent cancer; iron to prevent anaemia; protein growth or repair; etc.</i>

6. Outline **three** conditions necessary to ensure accurate results when carrying out sensory analysis tests. (6)

- (i) *timing - mid-morning, mid-afternoon, taste sensitivity best;*
- (ii) *no strongly flavoured foods for at least 30 minutes before tests;*
- (iii) *temperature of all samples the same; equal quantity of each sample; rinsing water/dry cracker needed; sample containers identical in size, shape, colour; coding of samples must not cause bias; sequencing must be well planned; testers must not set up the test; importance of silence; etc.*

7. Classify sauces and give **one** example in each class. (6)

<b>Classification</b>	<b>Example/Sauce</b>
Roux	<i>white, parsley, béchamel; etc.</i>
Sweet	<i>chocolate, caramel; etc.</i>
Egg based	<i>custard, hollandaise; etc.</i>
Fruit	<i>apple, orange; etc.</i>
Cold / Dressings	<i>mint, French dressing;, mayonnaise; etc.</i>
Miscellaneous / Other	<i>bread; etc.</i>

8. Explain how **two** of the following assist in the control of enzymic food spoilage. (6)

<b>Blanching</b>	<i>Vegetables put into boiling water to inactivate enzymes; then food is plunged into ice cold water for the same amount of time to prevent further cooking; etc.</i>
<b>Cold temperatures</b>	<i>Enzyme action is slowed down; by placing in fridge (4°C); etc.</i>
<b>Acids</b>	<i>The addition of acids e.g. lemon juice deactivates enzymes in food; alters the ph of foods such as bananas to prevent them going brown; etc.</i>

9. State the purpose of family resource management. (6)

*To use available resources efficiently in order to achieve goals; to improve the quality of family life; to enable family members to achieve their full potential; etc.*

List the **three** components of management.

(i) *Inputs* (ii) *Throughputs* (iii) *Outputs*.

10. State **one** advantage and **one** disadvantage of using credit to pay household utility bills. (6)

**Advantage**

*Access to utilities/services even though cash is limited at the time; avoids having services cut off e.g. gas; avoids having to pay reconnection fee (electricity); etc.*

**Disadvantage**

*High interest charged if credit bill is not paid on time; could run into debt if interest increases and one is not able to pay; difficult at times to predict what amount the bills will come to and the amount owed can accumulate easily; etc.*

11. State the function of **each** of the following parts of the refrigerator: (6)

**Thermostat**

*Controls and maintains the temperature within the cabinet at 5°C or below; disconnects the motor when the temperature rises; etc.*

**Refrigerant**

*Liquid in the refrigerator that evaporates by drawing heat from within the cabinet, thus cooling the cabinet; etc.*

12. Outline two functions of the Citizens Information Board.

(6)

- (i) *provides the public with information about rights and entitlements such as Job Seekers Benefit, Family Income Supplement;*
- (ii) *provides the public with advice on housing issues in the social services; advises on consumer issues; provides a money advice and budgeting service (MABS); etc.*

## Section B

Answer Question 1 and any other two questions from this section.

Question 1 is worth 80 marks. Questions 2, 3, 4 and 5 are worth 50 marks each.

1.

**A survey was conducted to identify the level and type of marketing of foodstuffs in post primary schools in the Republic of Ireland.**

*An extract from the summary of the main findings showed that a variety of food outlets e.g. tuck shops (53.2%), canteens (53.2%) and drinks vending machines (44.7%) are in operation in post-primary schools in Ireland, with a high proportion of schools also reporting a shop close to the grounds (64.4%).*

*A variety of healthy foods are available through one or more of these outlets including water (92.1%), juice (78.4%), sandwiches (73.9%) and fruit (62%). However, confectionery (74.1%), salty snacks/crisps (57.2%), fizzy/high sugar drinks (51.8%), diet drinks (50.2%) and biscuits, cakes and pastries (32.6%) are also widely available.*

- (a) Using the information given above, comment and elaborate on (i) the provision **and** (ii) the nutritional significance of the foods and beverages available to students in post primary schools.

(24)

**6 points @ 4 marks each**

**(2 references to provision, 2 references to nutritional significance + 2 others)**

### **Provision:**

*(Accept detailed points on %, availability of different foods – high / low, reason given for this).*

**Tuck shop (53.2%):** *more variety offered than in vending machines; generally provide less healthy options i.e. salty snacks, crisps and fizzy /high sugar drinks; provision of water is high; most of the food provided is pre-packed convenience food; etc.*

**Canteen (53.2%):** *a wide variety of healthy foods are available including sandwiches, fruit, milk; less healthy options e.g. confectionery, salty snacks/crisps, fizzy/high sugar drinks which are of poor nutrient density are also available; restricted opening times; most offer hot and cold food options; food can be prepared fresh on the premises; etc.*

**Drinks vending machines (44.7%):** *less choice available as space is limited; tend to provide less healthy options - fizzy drinks and salty snacks, crisps; water is not generally available; provision of healthy options e.g. sandwiches, milk and fruit is very small due to short shelf life and machines are not refrigerated; reduces queues at lunch times and breaks and relieves school catering staff to prepare food; also removes the need for till points and avoids crowding at serving areas; schools are free to stock the machines with their own choice of products; convenient as food is readily available; etc.*

**Shop close to school (64.4%):** *a wide variety of foods offered e.g. hot and cold; some nutritious foods e.g. salad bar, soup, paninis, and other foods high in fat or sugar; lunch time deals; etc.*

### **Nutritional Significance:**

**Water (92.1%):** *provides a good alternative to fizzy drinks, quenches thirst, prevents dehydration and is good for clear skin; no added sugar, less dental caries or risk of diabetes; etc.*

**Juice (78.4%):** *type available - fresh natural juice; concentrated juice with high sugar content; etc.*

**Sandwiches (73.9%):** *convenient alternative to making own lunch; variety may be limited; often made using white bread therefore lacking in fibre; etc.*

**Fruit (62%):** *is not generally available from vending machines; excellent source of fibre to aid digestion and vitamin C to boost immunity; etc.*

**Confectionery (74.1%):** *(e.g. sweets, chocolate) high energy foods, can cause dental decay; leads to obesity in inactive teenagers; can cause early on-set diabetes; etc.*

**Salty snacks/crisps (57.2%):** very little nutritional value; can lead to obesity; high in saturated fats; can aggravate acne in teenagers; high in salt which can have long term effects of causing high blood pressure; etc.

**Fizzy/high sugar drinks (51.8%):** generally very high in sugar, provide empty calories; can cause dental decay and obesity; etc.

**Diet drinks (50.2%):** sugar free, zero calories/low calorie; etc.

**Biscuits, cakes and pastries (32.6%):** high in saturated fat; etc.

(b) Poor food choices have contributed to 42% of teenage girls and 23% of teenage boys not getting enough calcium in their diet.

Give an account of **calcium** and include reference to:

- sources **3 sources @ 2 marks each**
- biological functions **3 functions @ 2 marks each**
- factors assisting/inhibiting absorption. **3 factors @ 2 marks each** (18)

**Sources:** dairy products e.g. milk, cheese, yoghurt; eggs; dark green vegetables e.g. spinach, cabbage; fish, e.g. salmon; flour; hard water; bottled water; fortified juices; supplements; etc.

**Biological functions:** calcium plays a major role in the formation & development of bones & teeth; important in blood clotting; necessary for muscle contractions; normal functioning of nerves & membrane permeability; regulates metabolism in the cells; prevents bone disease e.g. osteoporosis, osteomalacia; etc.

**Factors assisting absorption:** **Vitamin D** which stimulates calcium binding protein & increases absorption; **parathormone** is a hormone that controls the level of calcium in the blood; **amino acids** combine with the calcium salts, which are absorbed easily; **phosphorus** combines with calcium to form calcium phosphate; **an acidic environment** helps calcium absorption (eating vitamin C with calcium rich foods); etc.

**Factors inhibiting absorption:** **phytic acid** present in cereals and grains binds to calcium, preventing its absorption; **oxalic acid** present in rhubarb & spinach, binds to calcium, preventing its absorption; **too much fibre** binds to calcium, preventing its absorption; **excess saturated fat** forms insoluble soaps with calcium, preventing its absorption; **overconsumption of soft drinks**; **an incorrect calcium/phosphorus ratio**; **low levels of oestrogen** in postmenopausal women plays a major role in the absorption of calcium; **tannins** in tea and coffee; **long term use of medications** such as steroids; etc.

(c) Explain (i) what is osteoporosis;

(18)

**2 points @ 3 marks each**

*Osteoporosis is a disease which causes the bones to become thin and porous; this results in fragile and brittle bones that break easily; etc.*

(ii) the main factors that increase the risk of developing osteoporosis.

**3 factors @ 4 marks each**

**Gender:** more common in females (especially post-menopausal women); **diet:** a lack of calcium and vitamin D in the diet; **hereditary:** family history can increase risk; **age:** risk increases with age; **weight:** considerable weight loss may also cause loss of bone mass; lack of **weight bearing exercise** contributes to weakening of bones; **disability:** wheel chair and bed bound people are at risk due to inactivity; etc.

(d) Discuss the role of parents in shaping their children's food choices.

(20)

**5 points @ 4 marks each**

**Role model:** be a good food role model, offer a wide variety of nutritious foods, if children see parents eating healthy food they will learn to like them and be more inclined to experiment with new foods; etc.

**Home prepared meals:** children enjoy helping adults grocery shop and helping to prepare meals, it is also an opportunity to teach them about the nutritional values of different foods, how to read food labels, getting children involved means that they are more inclined to eat the meal served; etc.

**Regular family meal time:** eating together helps to give structure to mealtime, knowing dinner is served at approximately the same time every night and that the entire family will be sitting down together is positive; etc.

**Healthy snacks:** make a variety of healthy foods and drinks available - keep plenty of fruits, vegetables, whole grain snacks and beverages (water, milk and unsweetened fruit juices) around and easily accessible; etc.

**Eating Patterns:** do not eat in front of the TV - have your family meals around a table, eating in front of the TV means distraction which can result in overeating as no attention is being paid to the food or what younger children are eating; etc.

**Positive attitude to new taste:** encourage children to try new foods - serve a variety of fruits and vegetables daily, add vegetables to stir fries or casseroles etc.; include treats in the child's diet on an occasional basis, keep treat foods on a higher shelf where they are not as noticeable; etc.

**One meal for all:** one variety of meal cooked for the entire family; etc.

**Culture:** children eat foods that are cultural choices of their parents; etc.

**Religion:** foods selected dependent on the religious beliefs of the family members: etc.

**Nutritional awareness of parents:** when parents base the food choices on a sound nutritional basis this can affect the children's choices or the opposite may also apply; etc.

**Health status:** if the parents are following a particular dietary regime this may also be applied to the children's food choices i.e. healthy food choices; etc.

**Finance:** less of a food intake or variety if finances are low: etc.

2. **Over 85% of adults in Ireland enjoy eggs at least once a week, with 56% of men and 47% of women eating eggs two to three times per week. (Bord Bia, 2014)**

(a) Set out the results of a study you have carried out on eggs.

Refer to:

- nutritional significance
- contribution to the diet
- properties and related culinary uses.

(24)

**6 points @ 4 marks**

**(1 reference to nutritional significance, 1 reference to contribution to the diet + 4 others)**

**Nutritional significance - Protein:** 13%, HBV, albumin & globulin in white, livetin & vitellin in yolk; (growth and repair); etc. **Fat:** 12%, saturated in yolk, in fine emulsion because of lecithin, easy to digest; cholesterol is also present; (heat and energy); etc. **Carbohydrate:** 0%, serve with complex carbohydrates, no fibre present; etc. **Vitamins:** A (lining membranes); D (bones & teeth); E (antioxidant); K (blood clotting); B<sub>1</sub>, B<sub>2</sub> (release of energy); Niacin and B<sub>12</sub> (aids metabolism) (more in free range); lacks vitamin C; **Minerals:** 1%, calcium, phosphorus in useful amounts, (strong bones and teeth); iron in yolk (formation of haemoglobin); etc.

**Contribution to the diet** - cheap & nutritious, suitable for low budgets; versatile; protein alternative to meat/fish; source of HBV protein for lacto-vegetarians; easily digested therefore good for invalids, children, elderly; should be served with food rich in complex carbohydrates, fibre and vitamin C; etc.

**Properties and related culinary uses**

(16)

**2 points @ 8 marks each**

**(Name = 2 marks, Explanation = 4 marks, Culinary use = 2 marks) x 2**

**Coagulation:** egg protein coagulates and sets when heated; white at 60-65°C, yolk at 65-70 °C; coagulation causes the protein chains to untwist and straighten (denature) and bond together around small pockets of water; when overheated the protein clumps together, squeezes out the water and this causes curdling; etc.

**Culinary use:** cooking e.g. boiled, poached, scrambled, fried; thickening e.g. custards, quiche; binding e.g. burgers; glazing e.g. scones/pastries; coating e.g. fish, chicken goujons; clarifying e.g. soup; etc.

**Aeration:** whisking egg brings bubbles of air into a mixture; this heats the egg protein and makes them unravel and line up around the air bubbles and slightly sets the protein chains; this causes a temporary foam to form; to keep the foamy texture permanently in place the mixture must be further heated or a setting agent like gelatine must be added; etc.

**Culinary use:** whole eggs to aerate cakes e.g. sponge; egg whites to make meringues, soufflés; etc.

**Emulsification:** Lecithin in egg yolk is an emulsifier; an emulsifier is a substance that enables two immiscible liquids (e.g. vinegar and olive oil) to join together; etc.

**Culinary use:** mayonnaise; hollandaise sauce; blending fat and sugar in cakes; etc.

(b) Explain how quality is assured in egg production in order to minimise food safety risks. (10)

**2 points @ 5 marks each**

Ireland has an EU approved salmonella plan to maintain the health of the country's laying stock; incoming hens must be certified as salmonella free; laying hens are checked for salmonella on a monthly basis; all feed for hens is heat treated; management systems ensure full traceability of eggs; eggs carry best before date, house code and logo; all producers and suppliers are inspected and approved; all systems are independently inspected before Bord Bia Quality mark is awarded; etc.

3. **Micro-organisms are commonly used in the production of many foods.**

- (a) Discuss **four** conditions necessary for the growth of moulds. (16)

**4 conditions @ 4 marks each**

**Food:** most moulds are saprophytes, feed from dead organic matter e.g. bread and cheese; etc. **Warmth:** most are mesophiles, freezing (-18° C) inactivates mould growth; etc. **Moisture:** is needed for growth, thus frozen foods are unsuitable; etc. **Oxygen:** moulds are aerobic, need oxygen, so they will grow on the surface of food e.g. jam or through open structure foods e.g. bread; etc. **PH level:** moulds like slightly acidic conditions, extreme acids inhibit growth; etc. **Time:** moulds need time to multiply; etc.

- (b) Write a detailed account of **one** type of mould with reference to the following:
- name
  - description/characteristics
  - reproduction.
- (22)

**Name: 4 marks, Description/Characteristics: 2 points @ 3 marks each, Reproduction: 4 points @ 3 marks each**

Name	Characteristic	Reproduction
<b>Mucor</b>	<i>Saprophytic mould; white hyphae; grey sporangia; reproduce sexually and asexually; etc.</i>	<i>Reproduce sexually and asexually; etc.</i>
<b>Rhizopus</b>	<i>Saprophytic mould; fluffy white mycelium; black pin-head sporangia; reproduce sexually and asexually; etc.</i>	<i>Reproduce sexually and asexually; etc</i>
<b>Penicillium</b>	<i>Saprophytic mould; green-blue with powdery texture favour; temperatures of 20° C - 25° C; reproduce asexually; etc.</i>	<i>Reproduce asexually; hyphae develop conidia; etc.</i>
<b>Aspergillus</b>	<i>Saprophytic mould; black or green mould; favour temperatures of 20° C - 25° C; reproduce asexually; etc.</i>	<i>Reproduce asexually only; hyphae develop conidia; etc.</i>

**Asexual reproduction:** when the mycelium is well established reproduction occurs; a hypha grows upwards; the head of the hypha can either be a sporangium (round) or a conidium (chains of spores); when ripe, the sporangium or conidia bursts, releasing spores which travel into the air; if the spore then finds suitable conditions, new mould growth begins; etc.

**Sexual reproduction:** two hyphae grow beside each other; the two hyphae fuse together; the dividing wall breaks down and a zygospore develops; the zygospore produces and stores spores; the zygospore has a thick wall and protects the spores until there are suitable conditions; when conditions are suitable, the spores germinate, hyphae grow and extend out; spores are released into air and the cycle begins again; etc.

- (c) Outline the uses of micro-organisms in food production. (12)

**3 uses @ 4 marks each**

*Some are edible such as mushrooms and truffles; yeast used for bread and sourdough; cultures of bacteria are used to produce salami, pepperoni and chorizo; mould flavours cheese; used for novel protein foods e.g. mycoprotein such as Quorn; etc. bacteria - are used to make food supplements; used in food production e.g. yoghurt & cheese; used in functional foods such as pro-biotic yogurts; used in making vinegar, wine and beer; aspergillus is used in making soy sauce; etc.*

4. Money management skills are vital to running the house as a financial unit.

- (a) Analyse three social factors that affect household income. (18)

**3 factors @ 6 marks each**

**Age:** income tends to increase as people get older, more experienced and move up the pay scale; individuals can experience a drop in income on retirement unless pensions have been put in place; teenagers can earn money in part-time jobs ensuring that they have pocket money and easing the financial strain on the family; etc.

**Gender:** the number of women in the workforce has increased; 'Back to Work' schemes encourage women back into workforce; Employment Equality Act ensures equal pay and conditions for all regardless of gender; managerial positions in Ireland are still male dominated; etc.

**Socio - economic group:** individuals from poorer backgrounds tend to leave school early without qualifications; this can lead to unemployment or low paid jobs with few opportunities for career advancement or for improving income level; people from middle-class backgrounds generally have better educational opportunities and are more likely to get a third-level qualification enabling them to find well paid work; the economic downturn has affected all socio-economic groups; etc.

**Culture:** different cultures may have different expectations for example in some cultures men are the sole bread winners; etc.

**Disability:** family members with a disability can increase household costs; can affect the ability to earn money; etc.

- (b) Design a family budget (two adults and two young children) where the net weekly income is €50. Give a reason for the proposed allocation of income for each area of expenditure.

**6 points @ 3 marks each (18)**

Expect reference to each of the underlined + 3 others

Area of expenditure	%	Amount	Reason
<u>Housing</u>	25%	€62.50	Rent, mortgage repayments; household repairs, insurance; etc.
<u>Food</u>	25%	€62.50	Meals eaten at home and outside; etc.
Household Expenses	15%	€97.50	Bills: electricity, gas, telephone, TV; etc.
Education	5%	€32.50	Books; uniform; planning for college; etc.
Childcare	5%	€32.50	Crèche, childminder; etc.
Travel	5%	€32.50	To get to work and school; etc.
Clothing	5%	€32.50	Buy clothes for work and leisure; etc
Medical	5%	€32.50	Visits to doctor; prescription costs; etc.
<u>Savings</u>	5%	€32.50	Plan for emergencies; special occasions; etc.
Entertainment	5%	€32.50	To socialise with family and friends; etc.

(c) Recommend **one** type of savings scheme suitable for a family.

(14)

Refer to:

- name of institution **2 marks**
- type of savings scheme **1 type @ 3 marks**
- interest paid **1 point @ 3 marks**
- ease of access to funds **1 point @ 3 marks**
- tax payable. **1 point @ 3 marks**

<b>Name of institution Type of savings scheme</b>	<b>Interest paid</b>	<b>Ease of access to funds</b>	<b>Tax payable</b>
<b>Post Office Deposit account:</b>	<i>Interest payable (0.25%);</i>	<i>Money can be withdrawn easily at any P.O. with proof of ID with deposit book; etc.</i>	<i>Interest subject to DIRT (41%);</i>
<b>Post Office Instalment saving scheme:</b>	<i>Interest rate is 7%(AER 1.24%); save for 1 year and leave for 5 years; interest is calculated annually; etc.</i>	<i>7 days' notice necessary for withdrawal; 30 days' notice necessary for withdrawals before the end of the contribution period; penalty if money is withdrawn early; etc.</i>	<i>Interest earned is tax free;</i>
<b>Post Office Savings certificates:</b>	<i>interest is 7% after 5years &amp; 6 months; (APR 1.24%); interest is calculated every month; interest is reduced if cashed in early; interest rate is higher than deposit accounts; etc.</i>	<i>7 working days' notice necessary to cash certificates; etc.</i>	<i>Interest is tax free;</i>
<b>Post Office Savings Bonds:</b>	<i>Interest is tax free; 2.50% (AER 0.83%) after 3 years; no interest paid if withdrawn during 1st year; interest is paid annually; etc.</i>	<i>7 working days' notice necessary for withdrawal; etc.</i>	<i>Interest is tax free;</i>
<b>Credit Union Saver Account/ Junior Saver Account:</b>	<i>Interest 0.75%</i>	<i>Money can be withdrawn easily; proof of ID; opening hours; etc.</i>	<i>Interest subject to DIRT (41%);</i>
<b>Bank of Ireland Regular Saver:</b>	<i>Interest 1.25%</i>	<i>14 days notice required</i>	<i>Interest subject to DIRT (41%);</i>

5. Each year thousands of couples get married in Ireland. The majority of these marriages begin with some form of official ceremony with Church ceremonies being the most popular. (Accord)

- (a) (i) Define marriage as it exists in Irish law (5)

**Definition: 5marks**

*Marriage can be defined as “a socially and legally acceptable union between a man and a woman with the exclusion of all others”; it incorporates living together; remaining faithful to each other; child rearing in the union; Ireland now allows same sex marriages or legal partnerships which allow the same legal rights as heterosexual unions; etc.*

- (ii) Set out the legal requirements for marriage in Ireland. (16)

**4 requirements @ 4 marks each**

*A wedding must take place in a registered building e.g. in a registry office, church or mosque or in a venue which has been inspected and approved in advance by a Registrar; licences can now be obtained to allow people to temporarily register a location such as a hotel, beach or a garden for the purpose of marriage; ‘three months’ written notice must be given to the registrar; marriages must be registered after the ceremony; two witnesses must sign the register; marriage must be entered into voluntarily by both partners; partners must be over 18 years of age; neither spouse may be in an existing marriage; couples are restricted by blood relationships; etc.*

- (b) Discuss the rights **and** responsibilities of partners within a marriage relationship (20)

**5 points @ 4 marks each**

*Each spouse is entitled to live together; each spouse is expected to remain faithful and loyal to the other in a monogamous relationship; couples are entitled to have sexual relations with each other to consummate the marriage, non-consummated marriages can be annulled; each spouse has the responsibility to financially support one another and their children under the Maintenance of Spouse and Children’s Act 1976; legally any child born must be looked after physically, morally and socially; joint custody and responsibilities for care and upbringing shared; the inheritance of a spouse is provided for in the Succession Act 1965; if there is no will after death of one spouse, the surviving spouse is entitled to the entire estate, if there are children the surviving spouse is entitled to two thirds of the estate and the children one third of the estate; etc.*

- (c) Outline the conditions required for granting a divorce under the Family Law (Divorce) Act 1996. (9)

**3 conditions @ 3 marks each**

*Spouses must have lived apart for at least 4 of the previous 5 years; there is no prospect of reconciliation; adequate provision has been made for spouse, children and any other dependent relative; 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) Today the kitchen is the new living room, a modern hybrid of a living room, kitchen and dining area.

- (i) Discuss the factors that influence the interior design of a contemporary style kitchen/living area for a family with a member who has special needs.

Refer to **each** of the following:

- ergonomics
- aesthetic and comfort factors.

(18)

#### 3 points @ 6 marks each

**Ergonomics:** room design/layout should allow ease of movement; space should be easy to clean with easy access to all areas; design should facilitate maximum efficiency; the work triangle involves placing sink, fridge and cooker at the three points of an imaginary triangle when planning a kitchen; choose stain-resistant, durable and easy-to-clean surfaces; accessibility needs of the special needs family member should be taken into account; etc.

**Aesthetics:** room must be aesthetically pleasing to occupants; choose a design which will not date too quickly; the elements of design should be incorporated – colour, pattern, shape, texture, line; use design principles to create an attractive room; the likes and dislikes of the person with special needs should be taken into account; etc.

**Comfort:** consider the function of the room – occupants should be comfortable whether working or relaxing; heating, lighting and ventilation must be at a comfortable level; all seating and work surfaces should be at a comfortable level; design should be adaptable to the special needs of occupants; lower units; self closing drawers; adjustable furniture; remote controls for opening windows, setting alarms; etc.

- (ii) Differentiate between thermoplastic **and** thermosetting plastics.

Refer to:

- properties
- examples
- uses.

(20)

(Properties: 2 points @ 4 marks each, Examples and Uses: 2 point @ 1 marks) x 2

Type	Properties	Examples and Uses
<b>Thermoplastic:</b>	<i>Soft and flexible; softens on heating and can be moulded and remoulded; hardens on cooling; damaged by solvents; not damaged by alkalis &amp; acids; etc.</i>	<b>Fluorocarbon:</b> non-stick finish- kitchen utensils; etc. <b>Polytetrafluorethylene (PTFE)/Teflon:</b> saucepans; frying pans; etc. <b>Polyethylene:</b> bottles; food containers; toys; etc.
<b>Thermosetting:</b>	<i>Hard/rigid cannot be remoulded; withstands high temperatures; blister &amp; crack if overheated; damaged by strong acids &amp; alkalis, not by solvents; etc.</i>	<b>Melamine formaldehyde:</b> cups, plates, saucers; laminated countertops; etc. <b>Phenol formaldehyde:</b> interior paddles of top loading washing machines; etc. <b>Bakelite:</b> light switches; telephones; handles on utensils; control knobs on cookers; etc.

- (iii) Outline the effects of condensation in the home **and** state how condensation may be reduced/prevented. (12)

**3 points @ 4 marks each**

**Effects:** it can cause wallpaper and paints to mould; metals to rust; wood to rot; structural damage; mould on ceilings, carpet, clothes; cause rooms to smell musty and unpleasant; aggravate respiratory problems; damp insulating materials will increase heat loss from the house; etc.

**Reduce/prevent:** install a good ventilation system; add extra ventilation in rooms with high humidity; provide good insulation all over the house as this raises the internal temperature and prevents condensation; have an efficient heating system; use hygroscopic materials in soft furnishings and floorings; etc.

**and**

- 1.(b) (i) Name and explain **three** charges shown on a domestic electricity bill. (12)

**3 charges @ 4 marks each**

**Standing charge:** for maintenance of the electrical network and costs such as meter reading and issuing of bills; standing charge is higher in rural areas than urban; etc.

**Unit charge:** the amount of electricity used recorded in units; one unit is equivalent to 1000 watts of electricity used for 1kw hour (kWh); etc.

**Public Service Obligations Levy (PSO):** relates to the recovery of any additional costs associated with meeting the obligation to purchase electricity generated from sustainable, renewable and indigenous sources; etc.

**Specially priced units:** night saver electricity for storage/under floor heating; etc.

**VAT:** 13.5%

- (ii) Explain how **each** of the following impact on electrical safety:

- fuses
- miniature circuit breakers (MCBs)
- earth wire.

(18)

**3 points @ 6 marks each**

**Fuses:** a deliberate weak link; contains a thin piece of wire that forms part of the circuit; if a fault occurs, the fuse wire melts or breaks, stopping the flow of electricity and breaking the circuit; prevents injury and fire; etc.

**Miniature Circuit Breakers (MCB):** safety devices which 'trip', cutting off the current; if a fault develops which can prevent injury or fire; can then be reset when the fault has been identified and repaired; etc.

**Earth wire:** if a fault occurs in the appliance, the earth wire carries the electrical current to the ground; prevents electrocution; etc.

**or**

**1.(c) Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment. (Global Water Partnership)**

- (i) Describe the cold water system in a house. (15)

**5 points @ 3 marks each**  
**(Expect reference to underlined + 3 others)**

*Mains pipe brings the water to the area; a service pipe connects the mains pipe with the household; in the house this service pipe is generally connected to the kitchen sink; there, a stopcock allows the water supply to be turned off; rising mains supplies the storage tank in the attic with cold water; the storage tank which has a capacity of 230 litres, is placed in the attic so that it is high enough to create pressure to feed the system; a pipe leads off the storage tank to supply cold water to the bathroom taps and toilets in the rest of the house; a ball valve inside the storage tank controls the level of water and stops its flow when a certain level has been reached; the storage tank should be insulated and covered, the water from the storage tank is not suitable for drinking; etc.*

- (ii) Write an informative note on water with reference to **each** of the following:

- sources of domestic water in rural **or** urban areas
- water quality
- water charges.

(15)

**3 points @ 5 marks each**

**Rural areas: public supply; private wells/springs:** *natural springs – cleaner quality water, less impurities; water is tested and treated for harmful impurities; wells are lined with steel or concrete to prevent contamination from the soil; water is pumped into the house by an electric pump; water purifiers are fitted to remove suspended impurities; etc.*

**or**

**Urban areas: public supply(Irish Water):** *water travels from the reservoir to urban areas by mains (pipes); service pipe leads to each building; a valve (stopcock, located externally) allows water to be turned off during repairs; service pipe enters the house under the kitchen sink (another stopcock) which supplies the sink with fresh drinking water while another branch fills the storage tank (cistern) in the attic: this storage tank supplies all other cold taps, toilets, hot press tank and back boiler; etc.*

**Water quality:** *most of Irelands drinking water is sourced from surface water (rivers & lakes) which varies in quality; water samples are tested for several parameters to ensure supplies are safe to drink; standards are outlined in legislation to protect public health; compliance with standards is monitored by the EPA; high quality drinking water is vital for public health, food industry and tourism; areas of the country where samples have not met standards have had water restriction notice and /or boil notices issued by the water provider; fluoride and chlorine are added; etc.*

**Water charges:** *Irish Water is the new national water body with responsible for providing and developing water services throughout Ireland; clean water is expensive to produce and manage, so a new system of domestic water charges has been introduced for homes connected to a public water supply or to public waste water service; standard water charges will apply for public water services in 2015; each house will have a metre to measure water usage; a water conservation grant of €100 is available; charges are being capped and the rate of 1,000 litres of water is €3.70; capped charges will apply until 31<sup>st</sup> December 2018; 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) Playsuits and jumpsuits have evolved from men’s’ clothing to chic and versatile garments and are important fashion staples in every person’s wardrobe.**

- (i) Sketch **and** describe a playsuit/jumpsuit you would choose to wear for an occasion of your choice. **(9)**

*Sketch = 5 marks, Description = 4 marks*

- (ii) You plan to make the garment. Give details of **each** of the following: **(16)**

- body measurements required

*2 points @ 2marks each*

*Nape to waist: measure from the most prominent bone at the base of the neck down to waistline; bust: bring the measuring tape around the fullest part of the bust and straight across the widest part of the back under the arms; waist: tie a string loosely around the waist to find the natural waistline, measure over this with a measuring tape, do not pull the tape too tight; hips: usually 18 – 23 cm below the waist, measure around the fullest part; trouser length: on the outside of the leg, measure from the waistline to the hem length, do the same on the inside of the leg; etc.*

- type of fabric you would select and reason for choice

*Type of fabric: 2 marks, Reason: 2 marks*

*Cotton; polyester cotton; denim; viscose: etc.*

- outline plan of work to assemble the garment.

*4 points @ 2marks each*

*(expect reference to underlined)*

*Plan of work: layout/ pattern pieces on fabric; cutting; pin and tack pieces together; machine sewing/assembly/implementation; pressing/finishing; evaluation-fit and finish; etc.*

**and**

**2.(b) Write a profile of one fabric manufactured from natural fibres.**

Refer to:

- fibre production *3 point @ 2 marks each*
- fabric properties *3 properties @ 1 mark each*
- uses. *3 uses @ 1 mark each*

**(15)**

*Name of fabric: 3 marks*

**Cotton**

**Fibre production:** *comes from the boll or seed head of the cotton plant, with each fibre being between 2-3cm long; fibres are white and fluffy; the bolls are picked, by either hand or machine; the fibres are separated from the seeds; they are then pressed into bales; the cotton is then graded according to the length of the fibres; these fibres can be combed or spun into yarn; etc.*

**Properties:** *strong; absorbent; cool; washes and dries easily; dyes easily; shrinks; creases; affected by mildew; weakened by sun; etc.*

**Uses:** *clothes, towels, sheets and curtains; etc.*

### **Linen**

**Fibre production:** *made from the stem of the flax plant; flax stems are pulled and stems are retted, soaked until outer stem rots; stems are crushed and combed; fibres are spun into yarn; yarn is bleached and dyed; woven into a textured fabric; etc.*

**Properties:** *absorbent; cool; strong; washes well; creases easily; shrinks easily; difficult to dye; damaged by mildew; etc.*

**Uses:** *dresses; suits; soft furnishings; towels; napkins; tablecloths; handkerchiefs; etc.*

### **Wool**

**Fibre production:** *comes from the soft hair of sheep; the soft hair, which is called its fleece, is removed from the sheep; it is then collected and graded to the length of the fibres and also the colour and fineness of the wool; it is then cleaned and combed which is sometimes known as carding; it is then spun into yarn and can then be used to produce textiles; etc.*

**Properties:** *warm; absorbent; does not burn easily; hardwearing; resilient; shrinks if washed at too high a temperature or if tumble dried; coarse, can irritate the skin; etc.*

**Uses:** *jumpers; blankets; carpets; soft furnishings; etc.*

### **Silk**

**Fibre production:** *silkworm feeds on mulberry leaves; it spins a cocoon of silk around itself; cocoons are soaked in water; silk threads are unwound from cocoons onto reels; several of these thin silk threads are spun or twisted together to make thicker thread; these are then woven into fabric; etc.*

**Properties:** *absorbent; crease resistant; strong; smooth; light; drapes well; expensive; damaged by careless washing, moths, sunshine, chemicals; etc.*

**Uses:** *blouses; shirts; dresses; suits; ties; paintings; cushion covers; curtains; etc.*

or

2.(c) **As a practice of expression and as a way to individualism it is obvious that music and fashion are closely linked.**

- (i) Discuss, giving examples, how music and/or musicians have influenced trends in fashion over the years. (6)

**2 points @ 3 marks each**

**Punk, Indie, New Wave, Dance, Grunge, Goth, Heavy Metal, Hip-hop, Christian Rock; etc.**

**Pop and rock stars:** *Rihanna, Lady Gaga; Madonna, Michael Jackson, Prince; etc.*

*Madonna* introduced lingerie-inspired pieces, visible underwear, leggings, fingerless gloves, and jelly bangle bracelets; etc. **Michael Jackson** popularized the one-gloved look and leather jackets; etc.

**Prince** inspired an androgynous look, in which he wore clothes and colours (most notably a bright violet shade of purple) traditionally associated with women's wear; leggings were still in vogue in the early 1990s and experienced an update in the 2000s with a tighter fit than the original 1980s version; etc. plaid embraced by **Punk and Grunge**; **Lady Gaga** leather, wet-look trousers, bodysuits, hot pants; full length leather coats have been reworked from their '80s heyday and can be found in many stores alongside glam leather pencil skirts, party dresses and more classic items like gloves; etc.

**Cheryl Cole** chic look, structured, fitted dress and sky-high heels; etc.

- (ii) Give examples of how a garment can be restyled to reflect a modern trend. (9)

**3 examples @ 3 marks each**

*Take in; shorten/lengthen; taper; patches; slashing; linings; zips; buttons; bindings; beading; pockets; shoulder pads; patches; appliqué; etc.*

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

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

3.(a) While the improvement in the Irish economy is creating more opportunities for people to find work, there remains significant challenges in terms of youth and long-term unemployment. (*The Irish Times, November 2014*)

- (i) Discuss how changes in the availability of work have affected individuals and families in Ireland. (20)

*5 points @ 4 marks each*

*(1 ref. to individual, 1 ref. to family + 3 others)*

**Work availability:** increase / decrease in available work; etc. **Technological developments:** banking; house design; etc. **Type of work:** secondment, job share, part-time, over time; etc. **Sector:** primary, secondary, tertiary; etc.

*Affects:* reduced working hours, increased leisure time; reduced or eradicated uninteresting jobs for individuals; safer, cleaner environment; more skilled workforce needed; decline in leisure and entertainment industry has resulted in loss of jobs / income; stress as a result of financial insecurity/fear of poverty; loss of status, self-esteem and confidence; loss of purpose/feelings of inadequacy, depression; substance abuse; feelings of guilt; social isolation; work less labour intensive; reduced income which may lead to reduction in living standards; repossession of cars; change of home; poverty; strain on family relationships; lack of financial security which can lead to stress and ill health for family members; family members emigrate to seek work this can cause loneliness and isolation for the family left behind and there is no family support for the member who has emigrated; higher educational requirements for obtaining jobs; greater participation of women in the workforce; some family members have opted to avail of job share opportunities this creates better work life balance for the person working; it affords work opportunities to the other person who is sharing the job; work availability has seen a small but significant increase in recent times consequently the effects of this are positive for individuals and families alike; the availability of seasonal summer jobs for students has increased this gives the family more income and creates a happier home environment; etc.

- (ii) Discuss, giving examples, how flexibility in working hours has impacted on work/life balance for many people. (20)

*5 points @ 4 marks each*

**Parental leave** is 14 weeks unpaid leave, taken whole or broken up over an agreed period of time up until the child is 8 years of age; this enables parents spend more time with the child and also reduce the pressure of work e.g. work a 3 or 4 day week; parental leave can be shared between both parents so this will allow for a career conscious person to balance their work and home life more evenly; **career breaks** an option in some jobs, enable a parent to take **unpaid leave** to spend time with children, ageing parent and return to their job at a later stage; **working from home, flexitime, part-time work** allows parents to plan their schedules to make family life run smoother; child minding arrangements can be arranged with ease if a person's work schedule is know well in advance; **term time** now known as the shorter working year can be availed of by all employees, this creates more options and a happier work force for those who avail of this; **job share** allows for more leisure time; etc.

- (iii) Name **and** give details of **one** statutory initiative aimed at creating employment. (10)

**Name: 2 marks. Details: 2 points @ 4 marks each**

**IDA:** main aim is to attract new investment from overseas in the manufacturing and services industry; encourages existing companies to expand; skilled and flexible workforce, young educated workforce; low corporate tax rate, grant assistance; excellent telecommunication infrastructure; easy access to EU market; etc.

**Solas:** provides community based employment and training programmes aimed at long term unemployed; training programmes offer experience and the opportunity to go into employment; advice and practical assistance to job seekers; offers training programmes to people with disabilities and minority groups; encourages education in the workplace and “up skilling” e.g. specially designed training apprentice programmes to qualify as craftspeople; etc.

**Enterprise Ireland:** responsible for developing and promoting Irish business at home and abroad; helps Irish companies to compete and grow on an international level; companies are helped to build markets, increasing sales and exports and employ more people; etc.

**County / City Enterprise Boards:** aim to support small business at a local level; encourage job creation and the maintenance of sustainable jobs; offer advice, mentoring and financial assistance in the form of grants; etc.

**Údarás na Gaeltachta:** offer qualifying businesses and companies from various sectors a range of incentives and supports to start up, develop, diversify, expand or locate in a Gaeltacht region; financial incentives in the form of grants; etc.

**JobBridge:** national internship provides work experience placement for a 6 or 9 month period; aims to break the cycle where jobseekers are unable to get a job without experience; interns receive an allowance of €50 per week in addition to their social welfare entitlement; etc.

**and**

- 3.(b) (i) Evaluate **three** supports that are available to improve the accessibility of second-level education for all students. (15)

**3 supports @ 5 marks each**

**Financial:** Back to School payments such as Back to School Clothing and Footwear Allowance and BTEA, Cost of Education Allowance; free examination fees for candidates with a medical card; etc.

**Curriculum:** Courses - Junior Certificate School Programme(JCSP) this is aimed at making the Junior Certificate more accessible to young people who may drop out; on completion the student also receives a profile of achievements; LCVP - Link modules assessed by written exam (40%) and portfolio of coursework (60%); awarded with a Pass, Merit or Distinction; result may be substituted for one Leaving certificate subject (for points); LCA - course divided into 4 half-year modules; continual assessment – written, practical, orals, interviews and task assessments; certification – Pass, Merit or Distinction; etc.

**Examinations System:** level differentiation at J. Cert and L. Cert – subjects are examined at higher and ordinary level, Irish, English and Maths are also offered at foundation level; practical work and project work e.g. Home Economics, Science; availability of scribes, use of laptop and special centres for exams; modified papers for visually impaired, use of Braille; subjects extended to cater for diverse needs; etc.

**Disadvantaged:** DEIS; Home School Community Liaison; breakfast clubs; home work clubs; Youthreach; etc

- (ii) Explain, giving examples, how education prepares students for participation in employment.

**3 points @ 5 marks each** (15)

**Personal qualities:** responsibility, trustworthy, self discipline, team work, high values on punctuality, good attendance; etc. **Academic / Skills:** numeracy, literacy, artistic, communication, ICT; etc. **Socialisation:** respect for authority and rules; code of behaviour; empathy for others; etc. **Educational programmes:** TY, LCA and LCVP offer work experience, career guidance; etc.

or

3.(c) **Although an individual's leisure can often be affected by numerous external factors such as age, race, income and gender, there is no denying the benefits of incorporating a small amount of leisure into a person's routine.**

(i) Discuss, giving examples, the role of leisure activities in personal development.

Refer to the following factors:

- physical
- social
- emotional.

(18)

**3 points @ 6 marks each**

**Physical development:** many are sports based and help develop muscle tone; improve fitness; control weight gain; increase energy levels; good for overall health and well-being.; helps with co-ordination; weight bearing leisure activities can help to reduce the likelihood of developing osteoporosis; etc.

**Social development:** many are team based e.g. football and hurling, these promote co-operation and good communication skills and develops resilience to help accept defeat; social development can be enhanced by interactions with other people; playing cards, bingo, etc. can encourage individuals to make new friends; developing listening skills is vital to activities e.g. debating, drama; etc.

**Emotional development:** self-esteem and confidence can be improved through competitive leisure pursuits; ability to form and express opinions that are valued by others help development; many provide opportunity for relaxation e.g. yoga; a sense of belonging established by joining teams within a community; having fun can encourage positive emotional development; etc.

(ii) Name **and** evaluate **two** leisure facilities popular with retired people.

(12)

**Name = 2 marks, Evaluate: (2 points @ 2 mark each) x 2**

**Name:** Golf; bingo; gym/ leisure centre - aerobics classes, fitness classes; library / book clubs; swimming pool; cinema; musical society/choir; drama groups; card games; adult classes - pottery, art, photography; etc.

**Evaluate:** cost/value for money; convenience; accessibility; social benefits; physical benefits; emotional benefits; facilities; etc.

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Coimisiún na Scrúduithe Stáit  
State Examinations Commission

# LEAVING CERTIFICATE 2015

## MARKING SCHEME

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

*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*

<i>Grade</i>	<i>Mark bands</i>
<b>A1</b>	<b>360</b>
<b>A2</b>	<b>340</b>
<b>B1</b>	<b>320</b>
<b>B2</b>	<b>300</b>
<b>B3</b>	<b>280</b>
<b>C1</b>	<b>260</b>
<b>C2</b>	<b>240</b>
<b>C3</b>	<b>220</b>
<b>D1</b>	<b>200</b>
<b>D2</b>	<b>180</b>
<b>D3</b>	<b>160</b>
<b>E</b>	<b>100</b>
<b>F</b>	<b>40</b>
<b>N.G.</b>	<b>Less than 40</b>

*To calculate weighted mark -- divide the raw mark awarded by 5.  
(Round down any part marks e.g. 324 = 64)*

# Food Studies Practical Coursework General Marking Criteria

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

### **Research and analysis**

**= 20**

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

##### *Investigation*

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

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

##### *Investigation*

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

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

##### *Investigation*

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

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

##### *Investigation*

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

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

**= 4**

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

*(menu – starter/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**

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

**= 4**

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

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

**= 2**

## Preparation and Planning - 6 marks

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

## Implementation - 28 marks

- Outline of the procedure followed to include 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 to competent)**  
Some essential stages in preparation of dish identified, summarised and presented in correct sequence with due reference to relevant food preparation process/es used
  - Band D 1-4 marks (very basic – limited)**  
Few or any essential stages in preparation of dish identified, summarised and presented in sequence with due reference to relevant food preparation process/es used
- Key factors considered** (must relate to specific dish / test) 2 x 4 marks = 8  
Identification (2) and clear explanation of importance (2) of two factors considered which were critical to success of dish
- Safety/hygiene** 2 x 2 marks = 4  
(must relate to specific ingredients being used / dish being cooked)  
Identification (1) and explanation (1) of **one** key safety issue **and** **one** key hygiene issue considered when preparing and cooking dish/conducting test

## Evaluation - 16 marks

Evaluate the assignment in terms of:

- Implementation** 2 x 4 marks each = 8
  - Band A -4 marks** - identified and analysed specific weaknesses/strengths in carrying out the task, modifications, where suggested, were clearly justified, critical analysis of use of resources / planning
  - Band B- 3 marks** - identified weaknesses / strengths in carrying out task, some justification of proposed modifications, limited analysis of use of resources / planning
  - Band C- 2 mark** - some attempt made at identifying weaknesses **or** strengths in completion of task, modifications where suggested not justified, reference made to use of resources / planning
- The **specific requirements** of the assignment 2 x 4 marks each = 8
  - Band A 4 marks** - draws informed conclusions in relation to two key requirements of the assignment
  - Band B 3 marks** - draws limited conclusions in relation to two key requirements of the assignment
  - Band C 2 mark** - summarises two outcomes in relation to the assignment

## Area of Practice A – Application of Nutritional Principles

### Assignment 1

***Many third level students living away from home find shopping and cooking for themselves is a new and challenging experience.***

Discuss the nutritional needs of third level students. Research and elaborate on the meal planning guidelines that should be considered when planning and preparing meals for third level students who are living away from home in shared accommodation.

Bearing in mind these considerations, investigate a range of main course dishes suitable for the main meal of the day.

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.

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

- ***dietary/nutritional needs*** that should be consider when planning meals for ***third level students*** living away from home in shared accommodation
- ***relevant meal planning guidelines*** when planning and preparing meals for ***third level students*** living away from home in shared accommodation
- ***main course dishes*** suitable for the main meal of the day
- ***main course dish and reasons for choice.***

#### **Investigation**

**Dietary / nutritional requirements** – *nutritional balance, daily requirements of macro / micro nutrients including protein / cho / fat / iron / calcium requirements as appropriate to the needs of third level students with reasons for possible variations; high fibre; Vitamin C / iron absorption; Vitamin D / calcium absorption; need to increase Vitamin B group for release of energy and metabolism; possible variations in energy requirements; supply of glucose to help concentration levels; low GI carbohydrate foods that release energy slowly; 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 and dislikes; correct fluid intake to prevent dehydration - 8 glasses of fluids per day; high fibre foods; increase calcium; avoid foods high in salt, saturated fat and sugar i.e. convenience foods, if choosing convenience foods choose fortified foods; choose healthy snacks; use of foods in season – resource issues; medical needs / diets e.g. coeliac, vegetarian, etc.; advance planning of meals; making a list; sharing workload; bulk cooking; skills; facilities available – cooker, microwave, freezer, slow cooker, etc.; avoid waste - use of left over's for lunch; equipment available i.e. preparation - weighing scales etc., cooking/reheating – slow cooker, microwave, etc.; cost – special offers, buying in bulk, buy 'own brands', meal deals and value packs; use meat alternatives e.g. eggs, tofu, Quorn, pulse vegetables; buy affordable lean meats i.e. mince, top rib, etc; bulk up casseroles and stews with vegetables; avoid skipping meals; preparation of suitable foods for reheating and freezing; etc.*

#### **Dishes selected - range of main course dishes**

- **must be suitable for third level students**
- **must be a main course.**

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

*Analysis of findings regarding the nutritional requirements of a range of main course dishes for third level students.*

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

## Assignment 2

***The body needs about 4 grams of salt each day and an acceptable maximum level is 6 grams or one teaspoon of salt per day. Many people exceed this level of salt intake and eat on average about 9 to 10 grams of salt per day. (Irish Heart Foundation)***

With reference to the above statement, identify the health risks associated with a diet that is high in salt. Research and elaborate on the nutritional needs and meal planning guidelines (strategies to reduce salt in the diet) that should be considered when planning and preparing meals for people who wish to reduce the salt content in their diet.

Bearing in mind these factors, investigate a range of menus (starters and main course dishes) 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.

### Key requirements of the assignment

- **health risks** associated with a diet that is high in salt
- dietary/nutritional requirements when planning meals for people who wish to **reduce the salt content in their diet.**
- relevant meal planning guidelines (**strategies to reduce salt in the diet**) for people who wish to **reduce the salt content in their diet.**
- range of **menus (starters and main course dishes)** for the main meal
- chosen main course dish and reasons for choice.

### Investigation

**Health risks associated with a diet that is high in salt:** cardiovascular disease, high blood pressure, stroke, kidney disease, osteoporosis, gastric ulcers, headaches, stomach cancer, aggravates asthma symptoms, short term increase in dietary salt increases urinary calcium loss which increases bone loss in post menopausal women, water retention in the body – bloated puffy appearance which leads to stiffness and fluctuating body weight, etc.

**Dietary practices / nutritional requirements for people who wish to reduce the salt content of their diet -** 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; potassium helps balance sodium levels; follow current nutritional guidelines re nutrient and food intake; etc.

### Meal planning guidelines (strategies to reduce salt in the diet) –

Avoid adding salt to food when cooking and at the table; use alternative flavourings i.e. herbs, spices, black pepper, garlic, chillies, ginger etc; avoid using convenience foods i.e. stock cubes, soy sauce, gravy mixes, readymade sauces and soups, cereals, tinned and processed meats and vegetables; avoid salted meats and fish: avoid high salt snacks- crisps, salted nuts etc., choose fresh meats and vegetables; check breakfast cereals and breads for salt content as it can be high; choose healthy snacks; check food labels on all readymade meals and select low salt/reduced salt options, cook using oils as butter is high in salt; high is more than 1.5g salt per 100g, low is 0.3g salt or less per 100g; taste foods before adding salt; use low sodium salt; RDA adults 6 grams / children 4 grams; ask about the salt content of foods in restaurants; etc.

### Dishes selected - must show low salt/salt reduction/salt modification

- must be a main course dish

### Evaluation (specific requirements of assignment)

Analysis of findings regarding what you learned from the investigation regarding the management of a diet that is high in salt; factors that should be considered when planning meals for people who wish to reduce the salt content in their diet, and to ensure nutritional adequacy; what foods are suitable/unsuitable; what special aspects of meal planning have to be considered etc.; how the selected dish meets the requirements as identified in the investigation.

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

### Assignment 3

**Commercially prepared pastry is a popular option for many consumers.**

Carry out research on commercially prepared pastry in relation to each of the following:

- brands and types available
- dishes that can be made, stating the type of pastry used in each case
- cost.

Choose one type of commercially prepared pastry. Give an account of the key points that should be considered in order to ensure success when using this pastry.

Prepare, cook and serve **one** dish (either sweet **or** savoury) using the pastry that you have investigated.

Evaluate the assignment in terms of (a) implementation and (b) the advantages and / or the disadvantages of commercially prepared pastry.

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

- *research on commercially prepared pastry –brands and types available*
- *range of dishes that can be made, stating the type of pastry used in each case*
- *cost*
- *type of pastry chosen*
- *key points that should be considered in order to ensure success when using chosen pastry*
- *chosen dish either sweet or savoury and reasons for choice.*

#### **Investigation**

##### **Research on commercially prepared pastry –brands and types available**

**Brands:** Jus-Rol, Belbake (Lidl), Anchor, Pepper Ridge farm, Dufour, ds gluten free, Antoniou, Tesco, Lidl, etc.

**Types:** short crust, sweet / light short crust, rough puff, filo, puff, all butter / light puff, etc.

**Dishes that can be made stating the type of pastry used in each case:** **Short crust:** quiche, apple/lemon tart, mushroom tartlets, etc. **Rough puff:** sausage rolls, sweet and savoury pies, apple turnovers, etc. **Filo:** samosas, vegetable spring rolls, apple strudel, baklava, etc. **Puff:** pies and tarts, vol au vents, cream slices, etc. **Choux:** éclairs, profiteroles, etc.

**Cost:** cost of the different types of pastry investigated.

##### **Key points that should be considered in order to ensure success when using chosen pastry.**

*Follow manufacturer's instructions on packet for all types of commercial pastry*

**Short crust pastry/Rough puff pastry/ Puff pastry:** *use of cold utensils, coldness is essential in rolling so fat will not melt; thaw pastry overnight in refrigerator or for 45 minutes at room temperature; avoid using too much flour to roll out pastry; handle as little and lightly as possible; use marble slab to roll out, chill after rolling and before cooking; avoid stretching the pastry when rolling out as it will cause shrinkage in cooking; lightly flour the rolling pin; roll lightly and evenly in one direction only; use water to seal edges; lightly grease baking dishes to avoid sticking; dampen baking dish instead of greasing to prevent base overcooking in pastry with a high fat content; cook in a pre-heated hot oven 200°C – 220°C, starch grains burst and absorb fat, reduce the temperature to 180°C after 10 minutes to cook the filling; if puff pastry becomes sticky when handling chill in refrigerator before continuing; use a sharp knife to cut puff pastry so that layers will not fuse together and thwart rising; etc.*

**Filo pastry:** *keep filo pastry wrapped / covered in cling film/damp tea towel to prevent drying out; work with one sheet at a time; brush filo sheets with melted butter or oil in baked recipes for a light crisp texture; line tins with parchment paper or lightly grease; cool cooked fillings before use or pastry will soften; use sharp knife to cut pastry; glaze pastry; pre heat oven to 200°C, reduce temperature to 180°C to cook filling; etc.*

**Choux pastry:** *defrost if frozen in refrigerator or at room temperature for 30 minutes; pre heat oven to hot; avoid opening door during cooking; base should sound hollow when cooked; inside should not be wet; make hole in side of pastry to allow steam escape; cool, fill and eat soon after cooking as products can go soggy; etc.*

##### **Dishes selected – must be a sweet or savoury dish that you have researched using the pastry investigated**

**Evaluation** (as specified in assignment) - *advantages and / or the disadvantages of commercially prepared pastry. (can be one advantage and one disadvantage / two advantages / two disadvantages)*

## **Area of Practice C: Food Technology**

### **Assignment 4**

***Artisan hand-made foods have emerged as an important niche sector in the Irish food industry. This sector is supplied by a group of dedicated small-scale producers of foods such as breads, preserves and many other products.***

Identify a range of different breads currently popular and list the different ingredients used.

Investigate **two** different methods of bread making and explain the underlying principles involved in each case.

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

Describe the packaging you would recommend for the bread having regard to keeping the product fresh, hygienic and presented attractively.

Evaluate the assignment in terms of **(a)** implementation and **(b)** practicability and **(c)** cost.

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

#### **Investigate:**

- range of **different breads** currently popular **and list of different ingredients** used.
- investigate **two different methods of bread making** and explain the **underlying principles** in **each** case.
- suitable packaging to keep product fresh, hygienic and attractively presented.
- chosen product and reasons for choice.

### **Investigation**

#### **Range of different breads currently popular:**

*Traditional brown / white soda bread, yeast breads (savoury and sweet), savoury breads (tomato/onion/herb) gluten free breads, sourdough breads, spelt breads, flat breads, rye breads, corn breads, beer bread, etc.*

#### **The different ingredients used:**

**Flour:** brown, wholemeal, white, strong, gluten free, rice, corn flour, wheat, rye, buckwheat, spelt, soya, oat, chickpea, bean flour, etc. **Fat:** butter, margarine, olive oil, flavoured oils, etc. **Eggs, Sugar:** brown, white, etc. **Milk, Raising Agent:** bread soda, baking powder, yeast, etc. **Other ingredients** - salt, nuts, olives, cheese, fruit, beer, onions, herbs, seeds, olives, tomatoes, 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) when mixed with buttermilk/sour milk (acid and liquid) produces CO<sub>2</sub>; etc.

**Baking Powder:** bicarbonate of soda (alkali) + cream of tartar (acid) + milk / water (liquid) produces CO<sub>2</sub>, etc.

Heat of the oven causes the carbon dioxide to expand and rise, pushing up the mixture; gluten becomes elastic when moistened allowing the dough to rise when the CO<sub>2</sub> expands; heat of the oven causes coagulation of the gluten, coagulation starts at 74°C and continues until baking is complete; starch grains absorb water, swell and gelatinise, causing the bread structure to become firmer; Maillard reaction occurs contributing to browning; surface starch changes to dextrin, forming a crust on the bread; bread can be made using all in one / wet method; etc.

**Yeast:** fermentation process by which yeast breaks down sugar forming CO<sub>2</sub> and alcohol, takes place in the absence of oxygen; the carbon dioxide is utilised, the alcohol is evaporated into the atmosphere; in flour enzyme diastase converts starch to maltose; in yeast the enzyme maltase converts maltose to glucose, enzyme invertase converts sucrose to glucose and fructose, enzyme zymase converts glucose and fructose to CO<sub>2</sub> and alcohol; gluten matures and becomes elastic and springy; CO<sub>2</sub> gas is trapped as tiny air bubbles by the gluten, which on heating, expands and rises pushing the dough upwards; yeast is killed by the high temperature of the oven and the rising process stops, gluten sets; temperature reduced to cook product; etc.

**Air:** air can be introduced by sifting, rubbing in, creaming, folding, beating and kneading; air is entrapped in the mixture by physical means, air expands when heated and makes the food light; etc.

**Suitable packaging** e.g. perforated plastic bag, paper bag, zip lock bag, plastic / tin / cardboard containers, decorative baking liners, ties, ribbon, etc.

#### **If no packaging investigated – 3 marks**

**Dishes selected – one of the methods investigated must be used to make bread.**

**Evaluation (a)** (as specified in assignment) **(b)** *Practicability of bread making – resource issues – time, skills, equipment, packaging, storage, availability of ingredients, etc.* **(c)** cost.

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

### **Assignment 5**

***The success of many dishes relies on the gelatinisation of starch which may be present in one or more ingredients.***

Define gelatinisation. Identify a range of sweet and savoury dishes that illustrate this property.

Investigate and elaborate on the application of gelatinisation in the making of sweet and savoury dishes and explain the scientific principle involved.

Prepare, cook and serve **one** of the dishes (either sweet or savoury) that you have investigated.

Evaluate the assignment in terms of (a) implementation and (b) success in applying the property of gelatinisation when making the dish.

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

- **define gelatinisation**
- **range of sweet and savoury dishes that illustrate the property of gelatinisation**
- **investigate and elaborate on the application of gelatinisation in the making of sweet and savoury dishes**
- **the scientific principle involved**
- **chosen dish and reasons for choice.**

**Definition of gelatinisation:** *the process wherein starch granules form a suspension in cold water; when mixed with a liquid and heated, starch grains swell and burst and absorb moisture; resulting in thickening of the liquid; a gel forms; etc.*

#### **Range of sweet and savoury dishes that illustrate the property of gelatinisation:**

**Sweet Dishes:** *dishes that are made using sauces which are thickened with a starchy substance – flour/cornflour/arrowroot e.g. lemon meringue pie, rice pudding, éclairs, vol-au-vents, etc.*

**Savoury Dishes:** *dishes that are made using sauces which are thickened with a starchy substance – flour/cornflour/arrowroot/potato etc., soups, stews, curry, lasagne, pastry dishes – vol-au-vents, pasta dishes, etc.*

#### **The application of gelatinisation in the making of sweet and savoury dishes and the scientific principle involved:**

**Moist heat:** *starch, a complex carbohydrate has powerful thickening properties; three stages of gelatinisation using starch – heating the starch, absorbing the liquid, thickening the liquid; starch grains (flour/cornflour) are mixed with a liquid and heated to an initial temperature of 55°C - 70°C – the temperatures differ for different starches i.e. root-based starches (potato and arrowroot) thicken at lower temperature but break down more slowly, cereal based starches (corn and wheat) thicken at higher temperatures but break down more quickly; when the liquid is heated the hydrogen bonds holding the starch together weaken allowing water to penetrate the starch molecules; the starch granules swell, burst and absorb the liquid; water is absorbed into the individual starch granules and held there tightly; as swelling continues the viscosity of the solution increases, the granules move together and form a paste like solution (thick and gluey); the mixture becomes more viscous as the temperature increases; on cooling hydrogen bonds are formed and a gel like paste results; starch molecules have many hydroxyl groups that attract and hold the water molecules; mixture does not separate on cooling instead a gel is formed; temperature in excess of 85° will create a sol - sol is a solution that contains particles that do not dissolve but are evenly dispersed throughout the liquid; some starches have greater thickening powers e.g. cornflour - thickens better than wheat flour as it is purely starch; too much sugar decreases starch's ability to gelatinise as both the starch and sugar are competing for available water which leaves less water for the starch to attach itself to; acids also affect starch's ability to gelatinise; combination of acid and heat causes hydrolytic reaction, breaks down starch molecules into smaller molecules, these can move unlike bigger molecules resulting in a thinner paste; add acid after gelatinisation takes place; the presence of salt can promote gelatinisation; the amount of fat and protein used can also affect the thickening properties of starch; etc.*

**Dry heat:** *starch grains swell, burst and absorb any moisture (fat) present, used in the making of pastry and popcorn, etc.*

#### **Dishes selected – sweet or savoury dish must show gelatinisation.**

#### **Evaluation (as specified in assignment)**

*How successful the property / properties selected was applied when making the dish i.e. success of gelatinisation in achieving its intended purpose e.g. thickening etc.*

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

### Assignment 6

***In the food industry there is constant modification and testing of products for the purpose of making improvements to flavour or increasing profitability. This may result in a change of ingredients used.***

Investigate a range of baked products (e.g. biscuits, buns, cakes) which can be made using different types of fat. Choose one of the products that you have investigated and using a different fat in each case bake two batches of the product. (The same recipe, using a different type of fat, should be used for each product.)

Carry out a **simple difference paired comparison test** to determine if the tasters can detect a difference between the products.

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

#### Key requirements of the assignment

- *research on a range of baked products (e.g. biscuits, buns, cakes) which can be made using different types of fat.*
- *selected product of your choice and reasons for choice*
- *simple difference paired comparison test*
- *conditions to be controlled during testing.*

#### Investigation

= 20

- Research / Investigation of products appropriate to the testing  
*i.e. investigate a range of baked products (e.g. biscuits, buns, cakes) which can be made using different types of fat,*
- **Simple difference paired comparison test**

*Description: tester is presented with two coded samples, tester is asked if there is a difference between the samples, etc.*

*Aim of test: to identify can a difference be detected.*

*Possible outcomes: testers can / cannot detect the sample that is different 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 in each sample; temperature of samples; coding of samples; hygiene; timing; where testing takes place; dietary considerations; etc.*

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

*Selected products – product selected using two different types of fat (2 @ 2 marks each) = 4*

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

*Sources – 2 x 1 mark (2 marks) = 2*

#### Preparation and Planning

- **Resources** = 3
- **Main equipment needed to carry out assignment**

**Simple difference paired comparison test (based on 6 testers):**– 6 trays, 6 glasses of water, 12 coded containers, 6 samples of product A, 6 samples of product B, (could vary if control group/s included, 6 score-cards, record sheet, pen, etc.

#### Work sequence

= 3

Prepare and cook two batches of product.

**Simple difference paired comparison test:** *code containers; set up trays; put product samples in containers in random order; label score cards and record sheet; follow instructions on score cards; carry out test; collect score-cards; transfer results to prepared record sheet; reveal codes; present and evaluate results; tidy and wash up; etc.*

## Implementation

= 16

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

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

Prepare and cook two batches of product one with fat A and one with fat B.

### Simple difference paired comparison test (assuming 6 testers)

*Code 12 containers, 6 containers with symbol □, 6 containers with symbol ◇; put product samples in each container; set up 6 trays numbered 1-6, each tray has one container labelled with symbol □, one container with symbol ◇; samples presented in random order on each tray, each product is offered an equal number of times i.e. 6 times; samples on each tray can be the same or different; codes on each tray remain the same; testers follow instructions on score card, circle on the score card if they can detect a difference; scorecards are collected by recorder and results transferred onto prepared record sheet, when recording results transfer responses by indicating whether testers answered yes or no; tick correct responses; codes are revealed and results presented; results can be presented on bar chart or pie chart; 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, product in the container changes, 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 @ 2 marks + one hygiene @ 2 marks)** = 4

*Safety: testers with allergies – product with nuts etc, special diets e.g. diabetic, coeliac etc.*

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

## Evaluation

- **Implementation (2 points x 4 marks each)** = 8

*Testing procedures used*

*Key factors when conducting the test*

*Safety and hygiene issues considered*

*Problems encountered and suggested solutions*

*Evaluate efficiency of work sequence*

- **Specific requirements of the assignment (2 point x 4 marks)** = 8

**Test results obtained:** *i.e. an analysis of the factors that may have contributed to the test results obtained.*

*Students may give reasons as to why the testers could / could not identify the sample that was different, etc.*

**Band A = 4 marks**

**Band B = 3 marks**

**Band C = 2 marks**

**Appendix 1**  
**General Instructions for examiners in relation to the awarding of marks.**

1. Examination requirements:  
Candidates are required to complete and present a record of **five** assignments for examination.  
In respect of **Areas of Practice**, candidates must complete  
Area A - **One** assignment  
Area B - **One** assignment  
Area C - **One** assignment  
Area D - **One** assignment  
**One** other assignment from either Area A or Area E  
Where a **candidate completes five assignments and does not meet the examination requirements** as set out above, the examiner will mark the five assignments as presented and disallow the marks awarded for the assignment with the lowest mark from AOP A or E
2. Each Food Studies assignment must include different practical activities.  
Where a **candidate repeats a practical activity for a second assignment**, the examiner will mark the repeated practical as presented and disallow the marks awarded for the repeated practical activity with the lowest mark.
3. Where a **candidate completes the investigation and / or the preparation and planning and / or the evaluation aspects of an assignment and does not complete the implementation**, the examiner will mark the completed aspects of the assignment as presented. However, marks for **evaluation of implementation**, where attempted, will be disallowed.  
In relation to Assignments 3, 4, 5 and 6 **evaluation of specific requirements** will also be disallowed
4. Where a **candidate completes the preparation and planning and/or the implementation and /or the evaluation aspects of an assignment, and does not complete the investigation**, the examiner will mark the completed aspects of the assignment as presented. However, marks for **evaluation of specific requirements of assignment**, where attempted, will be disallowed.
5. Where the **dish / product prepared has not been identified in the investigation**, but fulfils the requirements of the assignment, deduct the relevant marks awarded (-1/-2) under meals /dishes/products in investigation.
6. **Teacher demonstration** work is **not acceptable**, therefore no marks to be awarded for implementation and evaluation of implementation.
7. **Dish** selected **not fully compliant** with requirements e.g.
  - An **uncooked dish** selected where a cooked dish specified
  - Dish **not suitable for people who wish to reduce salt in the diet** - Assignment 2
  - The **property of gelatinisation not used** in the making of the chosen dish – Assignment 5
  - Dish selected shows **few process skills**
  - Dish selected includes **over use of convenience foods**Deduct – 8 marks from total mark awarded for assignment and insert explanation as highlighted above.
8. A **dish that does not meet the requirements of the assignment** e.g. a dessert dish prepared instead of a main course; no marks to be awarded.

**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.

**If an assignment is being disallowed, this must be checked with the advising examiner.**



