



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*

<b>Grade</b>	<b>Mark bands</b>
<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.**



