

### **EXAMINERS' REPORTS**

# LEVEL 3 CERTFICATE AND DIPLOMA IN FOOD SCIENCE AND NUTRITION

**AUTUMN 2020** 

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#### **Annual Statistical Report**

The annual Statistical Report (issued in the second half of the Autumn Term) gives overall outcomes of all examinations administered by WJEC.

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#### **LEVEL 3 FOOD SCIENCE AND NUTRITION**

#### **Level 3 Certificate and Diploma**

#### Autumn 2020

#### **UNIT 1 MEETING NUTRITONAL NEEDS OF SPECIFIC GROUPS**

#### **General Comments**

The marks awarded covered the whole of the mark range.

It is important that all areas of the specification are covered in the delivery of the curriculum, as all areas will be covered in one way or another on the examination paper.

Candidates should be advised about the reliance on giving a one-word response, candidates need to ensure that this is appropriate to the question being asked. Unless the command asks for a one word response e.g. Name **one** type of protein food. Higher tariff mark questions usually require explicit responses.

Where candidates clearly had sound nutritional knowledge this enabled them to complete section A well and go onto utilise time well, thus answering the questions in Sections B and C in the required detail.

Candidates would be advised to make good use of the reading time to read all questions thoroughly because many errors were made because of candidates' misreading questions and choosing the wrong focus for their answers. Some candidates were seen to be using this time to write their answers in an extension booklet and then copying them into the answer booklet. They would be better advised to use the time to ensure they have read the focus of the question correctly and plan points to include in their response.

The quality of written communication (QWC) was assessed in all questions that asked candidates to 'explain', 'discuss, `assess`, and 'evaluate'. Many candidates answered these questions by making statements which, in the main, are correct but can only be awarded the lower band marks due to a lack of explanation, discussion or assessment. To access the higher band marks the candidates must explain the statements made and give examples, if appropriate. Exam technique sessions would really help support the candidates' learning and their approach to completing the exam paper to a higher level. Candidates should be encouraged to make use of paragraphs when writing a detailed response.

Candidates would be advised to make it clear when they have continued their answer in a continuation booklet to ensure answers are not overlooked. They should ensure they make clear the number of the question which is being continued and from which section. Some candidates continued their answer in the space under the lines. This is to be discouraged as if papers are scanned for marking work outside the allocated area could be overlooked.

One or two candidates had handwriting which was exceedingly difficult to read once their responses had been scanned for marking. Where candidates are entitled to use a computer to record their responses Centres should be encouraged to facilitate this.

#### Comments on individual questions/sections

#### Section A

- Q.1 (a) Not all candidates were able to distinguish the difference between food safety and kitchen safety. Where candidates were able to make the distinction, they were able to make appropriate responses showing understanding that food safety is concerned with preventing the contamination of food, ensuring it is safe to consume and that kitchen safety is concerned with the prevention of accidents.
  - (b) This question was generally answered well, with many candidates gaining full marks, responses showing an awareness of ways other than personal in which food safety risks can be minimised during food production. Examples coming from either Kitchen Hygiene or Food Hygiene.

One or two candidates were seen to give two further personal hygiene examples.

Some candidates were seen just to give a very brief or one-word responses in either part (a) or in some cases part (a) and (b) of question 1. Candidates should be advised that marks can only be awarded for explicit responses.

- **Q.2** (a) Most candidates were able to identify Vegans as the group of people who may suffer from a lack of HBV protein in their diet.
  - (b) The majority of candidates were able to give two dietary functions of protein in the diet at an appropriate level. A few simplistic responses were seen for example just stating growth, repair, or energy without referring to it being a secondary source of energy. It is important to encourage candidates to provide an appropriate level of response.
- **Q.3** (a) Bananas were the main good food source of potassium sited; other good food sources were accepted.
  - **(b)** Candidates showed a good understanding of the dietary function of potassium and were able to clearly state one function.
- **Q.4** (a) Where candidates were familiar with the micro-nutrient lodine, they were able to give an accepted good food source Sea fish or seaweed being the main examples given.

**Q.4 (b)** Fewer candidates were able to outline the impact of an lodine deficiency. Some candidates did not attempt this part of the question.

A few candidates misread or mistook lodine for Iron and consequently their response related to a good food source of Iron for part (a) and the impact of an Iron deficiency for part (b) resulting in them being awarded no marks for this question.

Where candidates had given an incorrect answer to part (a) of this question but were able give a correct response to part (b) their response was credited accordingly.

- Q.5 Most candidates were able to give a basic explanation for the meaning of both Reference Intake and Physical Activity Level. Where done well, candidates clearly had a sound knowledge and understanding providing full and accurate explanations.
- Q.6 Some excellent responses were seen where the candidates had obviously covered fortification during the delivery of the specification; enabling them to describe in detail with examples two different reasons why food may be fortified. The focus of most responses was on the replacement of nutrients lost during processing and to achieve the recommended amounts of nutrients in the diet which may otherwise be deficient. For a detailed response it is important that descriptions are supported with specific examples.

One or two candidates were seen to discuss improvement of colour; flavour; shelf life thinking about food additives rather than fortification.

#### **Section B**

- Q.1 One or two candidates gave no response to this question, some candidates were seen to answer part (a) but make no attempt at a response for part (b).
  - (a) The candidates' responses varied depending on their knowledge of carbohydrates and understanding of soluble and insoluble Non Starch polysaccharide (NSP); from the most simplistic answers just mentioning role in the removal of waste products from the body; to those which clearly had a more in-depth understanding and were able to explain difference in structure, and how this resulted in difference in function during the process of digestion and elimination of waste from the body.
  - (b) A wide spread of marks was awarded for this part of the question. At the lower end it was clear that the candidates were not familiar with the range of functions which NSP has in the body and as a result tended to repeat points made in their response to the previous part of the question. The question was asking for candidates to discuss why an adult's diet should meet the recommended daily intake of Non-Starch Polysaccharide (NSP) rather than just explain its function. Where done well, candidates showed knowledge of the 2015 government guidelines that states the intake should be 30g.

This question highlighted the importance of learners being introduced to the different types of carbohydrate during the delivery of the specification as some candidates were seen to focus their response on the meeting of energy requirements.

- Q.2 This question was attempted by all candidates with most being able to access at least the middle mark band. Responses showed candidates able to describe the most well-known complimentary actions between Iron and Vitamin C; along with that of Calcium, Phosphorous and Vitamin D. Those candidates who had a detailed knowledge of the subject were able to extend their response further to include a wider range of interactions supported by specific examples. It is important that candidates respond to the command word as some candidates were seen to be able to recall correct factual information about a range of micronutrients but did not go onto apply this to the question, without any reference to the complementary action they were unable to move out of the lower mark band. Some candidates were seen to use simplistic terminology.
- Q.3 When responding to a question which asks candidates to discuss something; in this case the implications of food poverty on the health of families it is important that they remain focused. Remembering that when they make a point it needs to be explained and supported with specific examples which related directly to the question. In the lower mark band responses generalised statements were seen to being made for example about the lack of fruit and veg affecting vitamins and mineral intake without mentioning specific vitamins; minerals; source or consequence. Or that without micronutrients they could have health issues but not going on to show understanding of what these health issues could be. Good discussions were seen to make appropriate use of connectives, supported statements with reference to specific nutrients which may be deficient or eaten in excess because of cost of certain food sources/lack of access/limited food choices. Knowledge of function and consequence being linked to a range of specified family members showing an awareness of factors like gender, life stage.
- Q.4 This question was examining candidates assessment of the risks of food induced ill health (Food poisoning, Contamination, Allergens) and how to limit these risks to the consumer(the person/persons eating the packed lunch in the workplace environment). Where done well candidates gave a detailed analysis of the food safety risks for example related to the inclusion of high risk fillings in sandwiches; inappropriate food storage, poor hand hygiene, contamination from the workplace environment, potential risks associated with allergens and were able to come up with valid ways of limiting the risks highlighted. At the lower end candidates were able to show knowledge of the risks associated with incorrect storage of packed lunches and the importance of temperature control as a way of limiting risk but did not include any actual temperatures to back up their statements. A few candidates were seen just to assess the risks without out going onto make any suggestions for limiting the risk factors.

One or two candidates misinterpreted this question and concentrated their response on explaining characteristics of unsatisfactory nutritional intake associated with food items which could be included in packed lunches.

When preparing learners for the external examination it is important that they are familiar with the Assessment Grid in the specification, this indicates the percentage of marks which can be allocated to each of the learning outcomes (LOs). This is an important tool in enabling candidates when using their reading time to assess the focus of a question.

#### Section C

Q.1 All candidates' were able to access some marks with their response to this question; at the lower end candidates were able to use Fred's current diet to determine the most obvious aspects as to if his diet was meeting his current nutritional need.

The emphasis in responses to this question needed to be on if his current nutritional needs were being met; reference to Fred's profile was still required to support statements made; those candidates awarded marks in the higher bands were seen to do this.

Some candidates had correctly calculated his BMI noting that he was underweight and displayed knowledge and understanding of the issues this could cause with somebody at his life stage.

It is important that candidates read the question to ensure that their response meets what they are being asked to do rather than just anticipate what they may have been asked to do in response to previous case studies. One or two candidates were seen to list what changes needed to be made in the future without making an assessment to current need being met.

Q.2 The majority of candidates were able to access the higher mark bands with their responses to this question. It was evident from their response that candidates were familiar with and understood how a move to a nursing home could improve Fred's diet, physical and mental health along with his lifestyle choices. Candidates in the higher mark bands were able to give a balanced response which covered all these aspects.

Some candidates were seen to write a generalised response in relation to what improvements Fred would need to make/benefit from rather than how the move to the nursing home would directly facilitate these changes.

Q.3 At this level it is expected that the commodities/dishes suggested in the modified diet would demonstrate an understanding of meal planning; along with detailed knowledge of the role different nutrients play in ensuring a balanced diet to meet the needs of Fred at his particular life stage. It is expected that candidates would give specific named examples for the commodities being suggested for example skimmed milk, wholemeal bread. Candidates were seen to choose fish for its health benefits without naming the type of fish.

Good practice was observed where candidates clearly laid their choices out next to mealtimes as in the question or presented in table form.

One or two candidates were seen to suggest two different days meal plans emphasising once again the importance of reading the question to ensure that the examination time is used appropriately.

Q.4 Those candidates who had a good understanding of Fred's life stage were seen to give excellent responses which justified in detail their chosen modifications which the chef in the nursing home could make to Fred's diet in relation to fitness for purpose.

Candidates need to be discouraged from just making generic statements about the function of nutrients; responses need to show clear application to the case study. There was evidence of candidates having a detailed understanding of the function and source of nutrients, but their responses lacked application in terms of justifying fitness for purpose in relation to Fred's specific dietary needs.

Where Centres have encouraged candidates to answer question 3 and 4 together in table form whilst this makes responses clear to read; it is important to ensure that this does not restrict access to the top mark band which requires candidates to make an in-depth justification for their choices with sound reference to Fred's specific nutritional and personal needs.

#### **FOOD SCIENCE AND NUTRITION**

#### **Level 3 Diploma**

#### Autumn 2020

#### **UNIT 2 ENSURING FOOD IS SAFE TO EAT**

#### **General Comments**

All the work received for marking of this external Assessment Task was well presented with the correct Mark Sheet for each candidate.

The standard of the work produced by candidates was good. Where candidates had clearly covered the specification during their guided learning hours, they were able to demonstrate their understanding of food hygiene and safety with clear application of the subject content to the scenario.

The scenario on which the external Assessment Task is based should always be the focus of the work which is completed. Candidates should be encouraged to read the task carefully to enable a response which meets the requirements of the task. Those candidates who had interpreted the requirements of the Beach Picnic external Assessment Task well, were able to produce responses which remained focused on the scenario referencing specific examples; enabling them to access the higher mark bands.

The key element is the avoidance of the inclusion of and reliance on generic notes, the majority of candidates appeared to be aware of this in this series; with fewer seen just including generic notes as evidence. Candidates need to be encouraged to demonstrate the application of their food safety knowledge to the Assessment Criteria which are being assessed and closely relate this to the scenario at every opportunity.

Candidates had addressed all required criteria and thus had the opportunity to access the full range of the mark bands.

Candidates need to be aware that two of the Assessment Criteria are not assessed. These change each year; some candidates were seen to include generic tables for AC2.3 Explain the physiological basis of food poisoning which was not being examined in this year's Assessment Task. The way the scenario was written provided candidates with the opportunity to apply their knowledge of the symptoms of food induced ill health as appropriate to the picnic hamper. (AC2.4) in their report as part of Task 2 without the need to address AC2.3.

Evidence of the 8 hours was logged on the timesheet with date and times that work took place and signed by the supervisor and the candidate.

See below for more detailed guidance for each AC section, which should enable centres to guide candidates successfully.

Whilst most candidates completed the Unit 2 Assessment following the three distinct tasks for The Beach Picnic one or two were seen just to address the Assessment Criteria making little reference to the tasks or the Scenario.

- Signposting of the assessment criteria by candidates on their work assisted the marking process and is to be encouraged.
- It appeared that some candidates had copied and pasted generic notes with information which may not be relevant or show application to the task.
- Use of the specification grid for Unit 2 which identifies the learning outcomes and content would clarify the information to focus on for each assessment criteria.
- Include a copy of the external assessment task mark sheet with the centre and candidate details on the front of the work for each candidate.
- Copy of the Attendance register is required to be sent with the work of the candidates.
- Please ensure that the work from candidates is both hole-punched, and treasury tagged or stapled in the top corner and not sent in plastic wallets.
- One or two candidates were seen to include work which appeared too related to previous scenarios.

#### Comments on individual questions/sections

- Task 1: (a) The written information which could be displayed on the website in relation to the picnic hamper.
  - (b) The information that would need to be included on a sticker on one of the food items.

The purpose of task 1 was to enable candidates to demonstrate application of their knowledge and understanding of AC2.1 The physiology of food intolerances and AC2.2 The physiological basis of food allergies in relation to the picnic hamper menu.

#### **AC2.1** Explain the physiology of food intolerance.

Candidates were able to explain the physiological basis of food intolerances including wheat and lactose intolerance, some had referred to chemicals including caffeine, salicylates monosodium glutamate and histamines. Some candidates did not make a clear distinction between a food intolerance and food allergy. Where candidates had carried out an analysis of the picnic hamper they were able to discuss the specific information which would need to be displayed on the website and produced accurate example(s) of the information to include on a particular individual food item(s). In doing so they were able to clearly demonstrate the application to the scenario which is a requirement of the higher mark bands. Some reference to food intolerance was also included in the report and risk assessment task.

#### **AC2.2** Explain the physiological basis of food allergies.

The majority of candidates were able to explain the physiological basis of food allergies and most were able to identify potential links with the picnic hamper menu. Some candidates were confused between food allergy and food intolerance. Those who gave a more detailed response were able to demonstrate knowledge of the foods which most commonly contain allergens as listed by the Food Standards Agency; apply this to the information which would need to go on the website along with an example(s) of individual product information making reference to allergens appearing in bold. Some reference to food allergies was also included in the report and risk assessment task. Fewer candidates were seen to just present generic information about food allergies making no reference to the scenario.

## Task 2: During the night, the five-year-old became ill. Produce an informative report which his parents could read to help understand how his ill health could have arisen.

The purpose of the report was to enable candidates to demonstrate application of their knowledge and understanding of AC1.1 AC1.2 AC1.3 AC2.4 in relation to the food on the picnic hamper menu.

#### AC1.1 Describe properties of micro-organisms.

In response to this Assessment Criteria candidates were seen to be more reliant on generic notes. Where done well, candidates were able to demonstrate direct links between the properties of micro-organisms and the picnic hamper menu.

**AC1.2** Assess how changing conditions affect growth of micro-organisms in different environments.

Evidence for AC1.2 referred to changing conditions such as temperature, oxygen, water, ph. and nutrients. Where candidates had made an assessment of conditions and environments with specific links to the preparation, cooking, storage, transporting and eating of the foods in the picnic hamper they were able to access the higher mark bands. One or two candidates were confused between changing conditions on the organoleptic quality of the food when for example being cooked rather than how changing conditions affect the growth of microorganisms on the food.

#### **AC1.3** Explain how micro-organisms affect food quality.

Candidates had provided detailed descriptions of how of micro-organisms affect food quality covering bacteria, viruses and fungi; in relation to appearance, texture, smell/aroma, taste non-visible effects and nutritional content. Scientific terms were used effectively. More candidates were seen to have applied the information directly to food on the picnic hamper menu. It is essential to apply the information to the scenario and some candidates failed to address this in their report.

#### AC2.4 Describe the symptoms of food induced ill health.

Where done well candidates were able to show knowledge of symptoms related to food intolerances, food allergies and food poisoning with many going on to discuss directly how they thought the five-year-old child may have become ill. Demonstrating detailed knowledge and direct application to the scenario.

#### Task 3: Food Risk Assessment

The blank Risk Assessment chart from Appendix B or a modified version had been used well to address Assessment Criteria for L03. This was clearly structured in their work.

Some candidates had shown evidence of highlighting the key consideration points of the brief and the initial risk assessment on Appendix A; the Beach Picnic menu which assisted their focus on the scenario.

- **AC3.1** Describe food safety hazards in different environments.
- AC3.2 Assess risk to food safety in different environments.
- AC3.3 Explain control measures used to minimise food safety risks.
- **AC3.4** Justify proposals for control measures in different environments.

The risk assessment produced by candidates was generally very good and in many cases enabling candidates to be awarded marks in the higher mark band.

It is evident that there is a solid understanding of the application of knowledge when applied to the preparation, cooking, and storage of food. The proforma chart provided in Appendix B or candidates own adapted version was used well to show how food safety is managed in different situations.

Where candidates were able to support this understanding of the H.A.C.C.P principles with a risk assessment in relation to specific foods on the menu including reference to specific temperature controls and timings for storage at the various stages; they were able to access the higher mark bands. As the scenario included a hamper menu to be eaten at a beach picnic; knowledge of potential risks with the preparation, delivery, travel to the beach, cold storage, eating outdoors was expected. Some candidates showed an excellent understanding of the food safety hazards in relation to the scenario to meet the Assessment Criteria for AC3.1. One or two candidates were seen to refer to hot holding which was not relevant to this particular scenario; along with foods which were not on the menu. Some candidates did not complete a detailed justification of the control measures to minimise food safety risks. Some were seen to only provided generic information when it came to temperature control, equipment, commodities.



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