# 2024 ASSESSMENT REPORT

## FDN315118 FOOD AND NUTRITION

## General Comments

The 2024 Food and Nutrition exam highlighted a range of student achievements and areas for growth.

More successful responses demonstrated a clear understanding of the question requirements, with students accurately interpreting and addressing key terms such as *identify, describe, explain, analyse,* and *evaluate*. These responses reflected a strong grasp of core concepts and theories, coupled with critical thinking skills that enabled students to analyse and evaluate topics in depth. Effective time management was also evident, allowing these students to comprehensively cover all sections of the exam.

In contrast, less successful responses often showed difficulty in interpreting and fully addressing the questions, particularly in understanding the distinctions between key terms. These responses tended to lack depth, focusing on surface-level information without providing the necessary analysis or evaluation. Limited understanding of foundational knowledge and ineffective time management were also common challenges, which sometimes resulted in incomplete answers.

Teachers are encouraged to continue emphasising the importance of understanding question requirements and developing critical thinking skills. Focused practice on interpreting key terms and applying theoretical knowledge to complex scenarios will further support student success in future assessments.

## Section A – Criterion 4

Section A of the TASC Food and Nutrition exam assessed Criterion 4, focusing on the relationship between nutrition, food and health.

High-standard responses:

- identified and described nutrients, their functions and food sources
- explained interactions between nutrients and their health impacts
- analysed the effects of nutrient imbalances
- described diet-related conditions and contributing factors.

Marks were awarded for clear, relevant answers supported by credible, science-based nutrition research, such as NHMRC or AIHW guidelines. Clear articulation and evidence-based reasoning were essential for success.

# Section A Part 1

## Question 1

a) Name the **three (3)** macronutrients and the recommended proportions from each one as a % of total energy. **(1.5 marks)**

**Successful responses included:**

Carbohydrates 45-65%, Protein 15-25%, Fat 20-35%.

b) State the energy value of 1g of each of the nutrients named above. **(1.5 marks)**

**Successful responses included:**

Carbohydrates 16kJ, Protein 17 kJ, Fat 37kJ

## Question 2

Explain energy intake and energy expenditure and how they are used to calculate energy balance. **(2 marks)**

While many students answered this question successfully, some did not include BMR as a component of energy expenditure, and others focused on the impact of energy imbalance rather than addressing energy balance itself.

**Successful responses included:**

- Energy intake is the energy consumed through food and drinks, while energy expenditure is the energy used by the body through BMR and physical activity. Energy balance occurs when intake equals expenditure.

## Question 3

a) Describe **two (2)** functions of carbohydrates in the body, other than the supply of energy. **(1 mark)**

Many students found this question challenging, as it required them to apply their knowledge of carbohydrates in a broader context beyond their primary function of providing energy.

**Successful responses included:**

- provides cellulose to stimulate the digestive tract
- assist in the regulation of blood glucose levels
- fibre obtained from carbohydrate-rich foods helps lower cholesterol levels
- provides the feeling of fullness, prevents overeating, decreases risk of overweight and obesity
- spares protein by allowing proteins to focus on tissue repair instead of energy production.

b) Explain the difference between soluble and insoluble fibre and give a food example containing each type of fibre. **(2 marks)**

Some students found this question challenging, particularly in accurately distinguishing between the characteristics of soluble and insoluble fibre and providing correct food examples. Some responses mistakenly reversed the properties or associated the wrong examples with each type of fibre, highlighting the need for a clearer understanding of their differences and

food sources. Encouraging students to group these fibres with their primary characteristics and food examples may aid retention. Creating simple mnemonics or visual aids could also reinforce these distinctions. For example:

- **Soluble** = Soft and Smooth (gel-like): Oats, apples, citrus
- **Insoluble** = Intestinal Bulk: Whole grains, nuts, vegetable skins.

**Successful responses included:**

- insoluble fibre does not dissolve in water, providing bulk to stools and aiding in the efficient removal of waste. Examples – brown rice, corn bran, dried beans, high-fibre cereals, legumes, nuts, seeds, rice bran, skin of fruit (apple) and vegetables (carrot), wheat bran, wholegrain foods, wholemeal bread.
- soluble fibre dissolves in water to form a gel-like substance, which slows the absorption of glucose and helps lower cholesterol. Examples – barley, fruits, legumes, lentils, oat bran, peas, psyllium husk, seed husks, soy products, vegetables.

c) How does insufficient carbohydrate intake lead to constipation? **(1 mark)**

Some students struggled to answer this question effectively, often overlooking the connection between carbohydrates and dietary fibre. To improve, students should focus on the role of fibre within carbohydrates and clearly explain the physiological consequences of its deficiency, such as harder, drier stools leading to constipation. Providing specific, accurate explanations with terminology like "bulk," "soften stools," and "food waste passage" is essential for high-quality responses.

**Successful responses included:**

- fibre, a type of carbohydrate, adds bulk to stools, softens them, and aids the passage of food waste. Insufficient carbohydrate intake reduces fibre, leading to harder stools and constipation
- insufficient carbohydrate intake reduces dietary fibre, which adds bulk to stools. Without enough fibre, stools become harder and drier, causing constipation.

## Question 4

a) What is the difference between a nutrient and a non-nutrient? **(1 mark)**

Some students struggled with this question, often providing overly narrow responses such as stating that nutrients provide energy while non-nutrients do not. While this is partially correct, it overlooks the broader roles of nutrients, such as supporting growth, repair and overall health, and the potential health benefits of non-nutrients. High-quality responses clearly explained that nutrients are essential for health, growth and energy, while non-nutrients, though not essential, can contribute to health benefits.

**Successful responses included:**

- Nutrients are essential for health, growth and energy whereas non-nutrients are the chemicals in foods that are not essential but may have beneficial effects on health.

b) Describe **two (2)** possible health benefits of consuming probiotics. **(2 marks)**

Many students were able to list health benefits of consuming probiotics; however, they often missed the requirement to describe these benefits. To achieve full marks, students needed to explain the stated health benefit and briefly outline how probiotics contribute to it. Some claims made by students were not supported by current scientific evidence, highlighting the importance of grounding responses in reliable knowledge. This question was particularly challenging, as probiotics are a relatively new and evolving area of understanding in nutrition science. Students should focus on well-established benefits, such as improved gut health or enhanced immune function and provide a clear explanation of their effects.

**Successful responses included:**

- probiotics help maintain a healthy balance of gut bacteria, aiding digestion and reducing issues like constipation, diarrhoea or IBS.
- probiotics support the immune system by strengthening the gut barrier and producing compounds that fight harmful bacteria.
- probiotics can help restore the balance of gut bacteria that may have been disrupted by a course of antibiotics, thereby supporting the microbiome's health.
- probiotics produce substances, such as lactic acid and bacteriocins, that create an internal environment less hospitable to harmful pathogens like Salmonella and rotavirus.
- probiotics may help alleviate symptoms of IBS, such as bloating and irregular bowel movements, and could provide some support in managing inflammation associated with Crohn's disease.

c) What are **two (2)** sources rich in probiotics? **(1 mark)**

Most students were able to correctly identify foods rich in probiotics. Probiotic-rich foods are typically fermented and contain live beneficial bacteria that support gut health.

**Successful responses included:**

- Examples of probiotic-rich foods include yoghurt, kefir, sauerkraut, tempeh, kimchi, miso, kombucha, salami, soy sauce, pickles (fermented in brine), traditional buttermilk, natto and lassi.

## Question 5

a) Why are ‘essential animo acids’ essential? **(1 mark)**

Most students were able to answer this question correctly, demonstrating an understanding of essential amino acids. However, some responses missed the critical point that essential amino acids cannot be synthesised by the body and therefore must be obtained through food.

**Successful responses included:**

- Essential amino acids are necessary for health but cannot be produced by the body. Therefore, it is essential that they are obtained through food.

b) Provide **two (2)** reasons why protein is needed in the diet. **(2 marks)**

Most students answered this question well, demonstrating a clear understanding of the importance of protein in the diet.

**Successful responses included:**

- repair, maintenance and growth of cells
- secondary source of energy
- formation of enzymes, genes and hormones.

c) Suggest **two (2)** examples of how two foods containing incomplete proteins can be combined to complement each other to address an individual's protein requirements. **(2 marks)**

Many students listed two examples of foods containing incomplete proteins but did not address the verb 'suggest how' in the question. Strong responses provided specific examples of complementary proteins (e.g., rice and beans, or bread and peanut butter) and explained how combining these foods ensures all essential amino acids are available to meet an individual's protein requirements.

**Successful responses included:**

- Most plant proteins are missing one or more essential amino acids. Combining two plant proteins can create a complementary protein (e.g. grain and a legume). For example: hummus and pita bread or lentil curry and rice.

Other examples of complementary proteins include rice and beans, bread and peanut butter, lentils and wholegrain bread, corn and black beans, tofu and brown rice, and pasta with peas.

## Question 6

a) Give the recommendations for water intake for moderately active adults and explain **two (2)** possible consequences of a lack of regular water intake. **(3 marks)**

Many students struggled with this question due to variations in water intake recommendations and the need to reference Nutrient Reference Values (NRVs) for adults. While most students could identify possible impacts of insufficient water intake, many simply listed effects, such as thirst, without addressing the verb "explain" by providing details about how or why these impacts occur.

**Successful responses included:**

Water Intake (Adult):

- 8 – 10 cups
- 2.1 – 2.6 litres.

Consequences:

- urine colour – Insufficient water intake leads to darker, more concentrated urine, indicating dehydration and potentially reduced kidney function.
- kidney stones – Lack of water causes waste chemicals in urine to concentrate, forming crystals that can clump into kidney stones.
- constipation – Insufficient water intake causes stools to harden as the colon absorbs more water from faeces, making them difficult to pass.
- UTIs – Adequate water intake helps flush out bacteria, lowering the risk of urinary tract infections.

- Headaches – Dehydration causes the brain to shrink slightly, creating pressure on nerves and resulting in pain.

b) How does the quantity of water consumed affect the retention of water-soluble vitamins? **(2 marks)**

Most students demonstrated an understanding that water-soluble vitamins are not stored in the body but are excreted with water. However, many did not fully grasp how the quantity of water consumed could affect vitamin retention. In healthy individuals, the kidneys efficiently regulate water-soluble vitamin excretion, making significant changes due to excessive or insufficient water intake unlikely. While extreme cases might slightly affect vitamin absorption or excretion, these scenarios are uncommon. High-quality responses reflected a clear understanding of the general properties of water-soluble vitamins in relation to water intake.

**Successful responses included:**

- The quantity of water consumed can affect the retention of water-soluble vitamins, as these vitamins dissolve in water. Excessive water intake may increase their excretion through urine, while insufficient water intake could slightly reduce their absorption in the digestive system.

c) Explain why there is a difference between the amount of vitamin A lost and the amount of vitamin C lost from broccoli during boiling. **(2 marks)**

Many students demonstrated an understanding of the difference between water-soluble and fat-soluble vitamins when explaining vitamin loss during boiling. Successful responses correctly identified that vitamin C, being water-soluble, dissolves in water and is lost during boiling, while vitamin A, being fat-soluble, is retained.

**Successful responses included:**

- Vitamin C is a water-soluble vitamin that dissolves in water and can be lost when foods are cooked in water. Vitamin A is a fat-soluble vitamin and these not lost when foods are boiled.

# Section A Part 2

## Question 7

a) Identify **two (2)** groups in the population who are particularly at risk of developing CVD. **(2 marks)**

Most students answered this question well, demonstrating an understanding of the groups at risk of developing cardiovascular disease (CVD). However, students could not score separate points for obesity and overweight, as these were considered a single group.

**Successful responses included:**

- individuals who are overweight or obese
- smokers
- males (higher risk compared to females)
- individuals with a family history of CVD
- Aboriginal and Torres Strait Islander peoples
- individuals living in rural or regional areas

- individuals with diabetes.

b) Discuss the relationship between diet, atherosclerosis, and CVD. **(4 marks)**

Most students demonstrated an understanding of the relationship between diet, atherosclerosis, and cardiovascular disease (CVD). High-quality responses linked poor dietary choices to the buildup of plaque in arteries (atherosclerosis) and explained how this process contributes to the narrowing and hardening of arteries, increasing the risk of CVD.

Some students focused on topics like blood pressure, which, while related to CVD, was not the primary focus of this question. To improve, students should clearly explain how diet directly impacts arterial health and the development of atherosclerosis, leading to conditions such as heart attacks and strokes. Precise descriptions of the processes connecting diet, plaque formation and CVD risks were key to successful responses.

**Successful responses included:**

- A poor diet high in saturated and trans fats increases LDL (bad) cholesterol, while trans fats also lower HDL (good) cholesterol, reducing the body's ability to remove cholesterol from the bloodstream. A diet low in soluble fibre worsens this by limiting the removal of LDL cholesterol, contributing to plaque buildup in the arteries. This process, called atherosclerosis, involves the hardening and narrowing of arteries. Over time, restricted blood flow from atherosclerosis increases the risk of CVD, including heart attacks and strokes.
- A diet high in saturated and trans fats contributes to the buildup of plaque in the arteries, a condition known as atherosclerosis. This occurs when fatty deposits accumulate on arterial walls, causing them to harden and narrow. A diet lacking in polyunsaturated fats, which help reduce plaque formation, can worsen this process. Over time, the reduced blood flow caused by atherosclerosis increases the risk of cardiovascular diseases, including heart attacks and strokes.

c) Explain the connection between excess sodium in the diet and CVD. **(2 marks)**

Most students understood that excess sodium is linked to high blood pressure, but some responses were too general and missed explaining how this contributes to CVD. High-quality answers clearly described how excess sodium increases blood volume, raises blood pressure and puts additional strain on the heart. Successful responses also linked these effects to long-term risks like atherosclerosis and CVD.

**Successful responses included:**

Excess sodium draws water out of cells, increasing blood volume and raising blood pressure. Over time, sustained high blood pressure, combined with atherosclerosis, forces the heart to work harder, significantly increasing the risk of cardiovascular disease (CVD).

d) Explain the difference between HDL and LDL cholesterol and discuss their relationship to CVD. **(4 marks)**

Most students showed a good understanding of HDL and LDL cholesterol. High-quality responses clearly explained the roles of HDL in cholesterol removal and LDL in plaque formation, linking these processes to CVD risk. However, some students mixed up "good" and "bad" cholesterol. To remember, think of HDL as "Healthy" cholesterol (it helps clear cholesterol from the bloodstream) and LDL as "Lousy" cholesterol (it deposits cholesterol in

the arteries). Ensuring the distinction is clear is essential for accurate answers. For full marks, students were required to identify "high-density lipoprotein" and "low-density lipoprotein" in full, rather than just using the abbreviations HDL and LDL.

**Successful responses included:**

High-density lipoproteins (HDL), or "good" cholesterol, remove excess cholesterol from the bloodstream and transport it to the liver for elimination. Low-density lipoproteins (LDL), or "bad" cholesterol, deposit cholesterol on arterial walls, causing plaque buildup. This leads to atherosclerosis, where arteries harden and narrow, restricting blood flow and increasing the risk of cardiovascular disease (CVD), including heart attacks and strokes.

e) Using specific food examples, explain how saturated/trans-fat consumption may contribute to developing CVD. **(4 marks)**

Most students demonstrated an understanding of how fat consumption contributes to cardiovascular disease (CVD). However, many responses treated trans fats and saturated fats as a single type of fat, rather than differentiating between their distinct impacts on cholesterol levels and CVD risk. High-quality responses correctly identified that saturated fats, primarily raise LDL cholesterol, while trans fats, not only raise LDL but also lower HDL cholesterol. Only a few top answers included this dual impact of trans fats on cholesterol, which accelerates plaque buildup and increases CVD risk. To improve, students should clearly distinguish between the effects of saturated and trans fats and use specific food examples to strengthen their explanations. Accurate use of terminology, such as LDL and HDL, was key to successful responses.

**Successful responses included:**

- Saturated fats, found in foods like butter and fatty cuts of meat, increase low-density lipoproteins (LDL), or "bad" cholesterol, which deposits on arterial walls and contributes to atherosclerosis. Trans fats, present in processed foods like pastries and margarine, not only raise LDL cholesterol but also lower high-density lipoproteins (HDL), or "good" cholesterol. This imbalance accelerates plaque buildup, restricts blood flow, and significantly increases the risk of cardiovascular disease.
- (CVD), including heart attacks and strokes.

f) Describe **one (1)** individual prevention strategy and **one (1)** community prevention strategy that individuals can implement to help reduce the risk of developing CVD.**(4 marks)**

Most students answered this question well, demonstrating an understanding of individual and community strategies to reduce CVD risk. However, some students missed the requirement to describe the strategies. It was important to explain not just what the strategy is but also how it helps reduce the risk of CVD. For example, describing what community gardens are and explaining how they increase access to fresh produce or describing the Health Star Rating and how it helps people make healthier food choices. High-quality responses included specific examples and clearly linked the strategy to CVD prevention.

**Successful responses included:**

Individual Strategies:

- Participate in regular physical activity: Regular physical activity helps use up kilojoules and prevent them from being stored as fat. Adults are recommended to do 30 minutes of moderate activity daily, while children should aim for 60 minutes.
- Swap saturated fat to unsaturated fat: Unsaturated fats help lower LDL cholesterol and prevent cholesterol buildup in arteries. For example, swap butter for margarine, use vegetable oils for cooking and snack on nuts.
- Eat 2 fish meals per week: Fish is a good source of omega-3, which helps lower LDL cholesterol and prevent artery plaque buildup.
- Reduce salt intake: Reducing salt lowers the risk of high blood pressure. Use herbs and spices instead of salt, eat fresh foods without added salt, or choose salt-reduced products.
- Choose lean meat and low-fat dairy: Options like lean chicken, beef, lamb, and low-fat milk, cheese and yoghurt contain less saturated fat and fewer kilojoules.
- Follow the Australian Dietary Guidelines: These guidelines promote eating from the five food groups, staying active and drinking water, which helps prevent weight gain, high cholesterol and high blood pressure, all of which contribute to CVD.

Community Strategies:

- Eat Well, Move Well: A health initiative promoting healthy eating and physical activity.
- Health Star Ratings: A front-of-pack labelling system that rates food nutritional value from ½ to 5 stars. It helps people compare foods based on energy, risk nutrients, and positive nutrients.
- Heart Foundation blog and resources: Provides recipes, personal stories and inspiration to support heart health.
- Community gardens: Shared spaces where people can grow fruit and vegetables, giving access to fresh, affordable produce while teaching gardening skills and supporting nutritious eating.
- Healthy Tasmania Fund: A grant program that provides financial support to community organisations for projects that encourage healthy lifestyles, such as increasing physical activity and improving nutrition.

# Section B – Criterion 5

Section B of the TASC Food and Nutrition exam assessed Criterion 5, focusing on the ability to analyse diets using Nutrient Reference Values (NRVs) and recognised food selection tools. High-standard responses:

- Analysed dietary data by comparing it to NRVs and drawing logical conclusions.
- Evaluated diets using the Australian Dietary Guidelines to assess nutritional adequacy.
- Recommended and justified dietary modifications aligned with these frameworks.

Marks were awarded for detailed analysis and clear, evidence-based recommendations grounded in NRVs and the Australian Dietary Guidelines.

# Section B Part 1

## Question 8

a) Alex's BMI falls within what range? **(1 mark)**

Students were required to reference the standard BMI classifications accurately. While Alex should have been classified as obese, some students incorrectly described him as overweight or not within the healthy range.

**Successful responses included:**

- Alex has a BMI of 32.4, placing him in the obese category.

It was also sufficient to simply write "obese".

b) Compare Alex's energy intake with the recommended intake and determine **two (2)** long-term health consequences if this eating pattern continues. **(2 marks)**

Students were not required to complete this question, as the necessary data for energy intake was not provided. The terms EER (Estimated Energy Requirement) and DEER (Desirable Estimated Energy Requirement) were included on the exam. EER represents the estimated energy needs based on factors such as age, gender and activity level, while DEER reflects the energy requirements considered optimal for maintaining a healthy weight and lifestyle. This differs from energy intake, which measures the actual energy consumed from food and drink.

**A successful response could have included:**

- Energy intake = 19,382 kJ (Note: the term used in the data on the paper was incorrect)
  Desirable Estimated Energy Requirement (DEER) = 16,895 kJ
  Alex is consuming approximately 2,500 kJ (2,487 kJ) in excess. Long-term health consequences of this energy imbalance may include further weight gain and an increased risk of developing type 2 diabetes.

Students could have also listed: increased risk of cardiovascular diseases, joint problems such as osteoarthritis, sleep aponia, reduced mobility, mental health challenges like depression or anxiety.

c) Identify the macronutrient that Alex is consuming in excess and explain **two (2)** long-term health consequences of this. **(3 marks)**

The question required students to explain the impact of the nutrient excess, rather than simply listing the long-term health consequences.

All macronutrients fell within their Acceptable Macronutrient Distribution Range (AMDR). Without the Energy Intake figure, students could not accurately determine if Alex had consumed excessive kilojoules. However, students were credited for identifying any of the macronutrients—protein, fats or carbohydrates—as being consumed in excess, as Alex's BMI of 32.4 may have led to assumptions about overconsumption. This approach ensured fairness in marking.

**Successful responses included:**

Fats

Alex's energy from fat is 33.2%, the recommendations are 20-35% of daily energy should be from fats. This is at the upper end of the intake range and may indicate an excess of energy.

Long term (examples):

- Obesity – Fats are the most energy dense nutrient (37 kJ/g), so an excess consumption of fat can easily lead to weight gain if there is an energy imbalance (more energy is consumed than is expended).
- CHD – 49% of these fats came from saturated sources. These fats are linked to the buildup of plaque in the arteries. These plaques narrow and constrict the arteries and restrict the flow of blood – arteriosclerosis.

Protein

Even though Alex's protein intake fell within the recommended energy range at 15%, the RDI graph showed that Alex consumed 67% above the RDI for protein*.

Long term (examples):

- Obesity – Protein contributes 17 kJ/g. This may contribute to an excess in energy intake, an energy imbalance and weight gain.
- High protein diets – Can lead to reduced intake of other essential macronutrients or fibre, affecting overall diet quality.
- High protein diets – Increase the risk of developing heart disease – many protein-rich foods are high in saturated fat.
- High protein diets – Overconsumption may place additional stress on the kidneys, potentially leading to kidney damage, especially in individuals with pre-existing kidney conditions.

*__Please note__: A Recommended Dietary Intake (RDI) graph represents nutrient intake levels sufficient to meet the physiological needs of nearly all individuals but does not account for the consequences of excessive nutrient consumption. In Alex's case, his protein intake exceeded his physiological needs and surpassed his Estimated Energy Requirement (EER), likely indicating an excessive intake of protein from an energy perspective.

Carbohydrates

Even though Alex's carbohydrate intake fell within the recommended range of 45–65% of energy from carbohydrates, the high proportion of processed foods in his diet may have contributed to an excess energy intake.

Long term (examples):

- Obesity – Carbohydrates provide 16 kJ/g and are often energy-dense while lacking satiety-promoting nutrients like fibre. Excessive consumption may lead to an energy imbalance and weight gain.
- Type 2 Diabetes – Frequent intake of highly processed, high-GI carbohydrates can result in blood sugar spikes, increasing insulin demand and potentially contributing to insulin resistance over time.

- Heart Disease – Diets high in processed carbohydrates are often associated with increased LDL cholesterol and triglyceride levels, both risk factors for heart disease.

d) Is Alex consuming enough dietary fibre? Justify your answer and suggest **one (1)** short-term and **one (1)** long-term health consequence. **(4 marks)**

Students were required to justify their response by providing reasoning and evidence. Many struggled, incorrectly assuming that exceeding the Adequate Intake (AI) meant Alex was consuming too much fibre. The AI indicates adequacy for a healthy population but not an upper limit. While Alex's intake was 15% over the AI (34.5g), it remains below the Suggested Dietary Target (SDT) of 38g, which is recommended to prevent chronic disease.

**Successful responses included:**

Alex is consuming 115% of the suggested AI for dietary fibre.

Short term consequences:

- Preventing constipation – Adequate fibre can prevent constipation by adding bulk to stool and facilitating regular bowel movements.
- Improved gut health – Fibre supports the growth of beneficial gut bacteria, contributing to overall digestive health.

Longer term consequences:

- Reduced risk of coronary heart disease: Soluble fibre can lower LDL cholesterol levels, reducing the risk of heart disease over time.
- Lower risk of type 2 diabetes: Fibre helps regulate blood sugar levels by slowing the absorption of glucose into the bloodstream.
- Protection against colorectal cancer: Fibre increases stool bulk and decreases transit time, potentially reducing the exposure of the colon to carcinogens.
- Weight management: High-fibre foods promote satiety, helping to control overall calorie intake and maintain a healthy weight.

e) One of the micronutrients Alex is consuming in excess is sodium. Explain **one (1)** short-term and **two (2)** long-term consequences of a sodium intake as high as Alex's. **(3 marks)**

Many students incorporated data into their responses, which often left insufficient space to fully address the question. While many could list the impacts of sodium, the question required an explanation of both the short- and long-term effects. This meant students needed to describe how sodium affects water balance in cells in the short term and the long-term consequences of a high intake. Markers were looking for explanations that demonstrated a clear understanding of these impacts.

**Successful responses included:**

Short term

- Thirst: Excess sodium increases the concentration of sodium in the blood, triggering thirst as the body signals the need to restore fluid balance and dilute the sodium levels.

Long term

- Hypertension: Over time, high sodium intake can draw water out of the cells, increasing blood volume. If the kidneys cannot filter the excess fluid effectively, this can lead to elevated blood pressure (hypertension).
- Increased Risk of Cardiovascular Disease: Prolonged hypertension caused by excessive sodium intake puts strain on the heart and blood vessels, increasing the risk of heart disease and stroke.

f) Alex is consuming several other micronutrients in excessive amounts. Select **two (2)** and explain **one (1)** short term and **one (1)** long term health consequence of the high intake. **(6 marks)**

The data used to assess an excess of nutrients includes the Upper Level of Intake (UL) and, for sodium, the Suggested Dietary Target (SDT) maximum. The SDT for sodium represents the daily intake level recommended to reduce the risk of chronic disease. The UL, by contrast, is the highest average daily nutrient intake level unlikely to pose adverse health effects, with the risk of adverse effects increasing as intake exceeds the UL. Based on the graph and corresponding data table, none of the micronutrients, apart from iron (117%), appear to have exceeded their UL. The other highest percentages—phosphorus (72%) and calcium (67%)—are well below their respective UL thresholds (4000 mg for phosphorus and 2500 mg for calcium). Similarly, all other nutrients, such as retinol (29%), zinc (45%), and iodine (45%), remain within their specified ULs. As a result, this question was not assessed.

**A successful response could have included:**

Since the only micronutrient exceeding its limit is iron, a response could address its short- and long-term consequences:

- Short-term health consequence: Excess iron can cause gastrointestinal discomfort, including nausea, vomiting, and abdominal pain.
- Long-term health consequence: Prolonged high iron intake can lead to iron overload, increasing the risk of liver damage, heart disease, and other organ complications.

g) Looking at Alex's percentage energy derived from the macronutrients – how does this differ from recommendations? **(4 marks)**

**A successful response could have included:**

Recommended energy intake from the macronutrients:

- Carbohydrates: 45–65% of energy. Alex was within the recommended range, with 51% of his energy coming from carbohydrates.
- Protein: 15–25% of energy. Alex was at the lower end of the range, with 15% of his energy coming from protein.
- Fats: 20–35% of energy. Alex was towards the upper end of the range, with 33% of his energy coming from fats.

While all of Alex's macronutrients were within the recommended intake range, he would be advised to reduce his energy intake from fats due to his BMI of 32.4 and the energy density of his diet.

h) Explain how Alex's fat intake ratios differ from the nutritional recommendations. **(4 marks)**

This question was generally well answered. It was important for students to mention that the recommended fat intake ratios are one-third for monounsaturated, polyunsaturated, and saturated fats. High-standard responses correctly identified the proportion of each type of fat Alex consumed, indicated whether these proportions were under or over the recommended ratio, and provided a clear explanation.

**Successful responses included:**

Recommendations state that fat intake should be evenly distributed, with 33.3% coming from each type of fat.

- Alex is consuming 16% of his fats from polyunsaturated sources, which needs to increase to 33.3%.
- He is consuming 49% of his fats from saturated sources, which should be reduced to 33.3%.
- Alex is consuming 35% of his fats from monounsaturated sources. While these are beneficial fats, he should slightly reduce this proportion to allow for an increase in polyunsaturated fats.

i) Identify and explain **two (2)** possible consequences this high fat intake might have on Alex's health. **(3 marks)**

Students should note that this question focused on the proportions of fat types relative to the total fat consumed, not the total amount. The question required students to examine the physiological impacts of these fats rather than their contribution to energy density. However, due to some ambiguity in the wording, markers accepted a variety of responses, including those addressing energy density. High-standard responses clearly explained the health consequences of Alex's fat intake in relation to the fat proportions consumed.

**Successful responses included:**

- A diet high in saturated fat increases LDL cholesterol, which deposits in arteries, narrowing them and leading to atherosclerosis, raising the risk of heart attack or stroke.
- Low polyunsaturated fat intake reduces HDL cholesterol, which supports blood circulation. Lower HDL can hinder blood flow and raise the risk of heart attack or stroke.
- A high intake of saturated fat can replace healthier fats, increasing LDL cholesterol and lowering HDL cholesterol, which raises the risk of cardiovascular disease.
- Excess saturated fat can lead to fat accumulation in the liver and muscles, interfering with insulin signalling and impairing blood sugar regulation, increasing the risk of type 2 diabetes.

# Section B Part 2

## Question 9

a) Guideline 2 of The Australian Dietary Guidelines suggests that we should “Enjoy a wide variety of nutritious foods from these five groups every day:

- Plenty of vegetables, including different types and colours, and legumes/beans”.

How many serves of vegetables should Alex be consuming each day? How does this compare with the number of serves Alex is consuming each day?

The number of serves Alex is consuming each day was assessed based on the Australian Dietary Guidelines. Students were expected to recall the recommended food serves outlined in the guidelines. Many students found it challenging to calculate the vegetable serves due to the lettuce in the McDonald’s Crispy Caesar Wrap and the cucumber in the tzatziki. To ensure fairness, markers accepted 0, 0.5, and 1 serve of vegetables as correct responses.

Please note: Discretionary foods are items that do not fit within the five food groups and are not essential to a healthy diet. The McDonald’s Crispy Caesar Wrap is classified as a discretionary food under the Australian Dietary Guidelines due to its high levels of saturated fat and sodium (Discretionary food and drink choices | Eat For Health).

**Successful responses included:**

- 19-50 years – 6 serves of vegetables per day. Alex is not consuming any serves of vegetables.

b) Suggest **four (4)** specific changes Alex could make to introduce more vegetables into his diet. **(4 marks)**

It was important for students to identify a specific food in Alex's diet that could be replaced or modified to increase his vegetable intake. Many students gave food suggestions without clarifying what they were changing or modifying. Additionally, responses needed to include specific food examples; using a general term like "add vegetables" was not sufficient. Suggestions also needed to be viable; for instance, a kale, banana and tomato smoothie may not be realistic due to its likely unpalatable taste.

**Successful responses included:**

- Breakfast – Keep the crumpets but replace the peanut butter with a topping of smashed avocado, sliced cherry tomatoes, and a sprinkle of baby spinach or fresh herbs like parsley.
- Lunch – Substitute McDonald's Crispy Caesar Wrap
  Replace it with a homemade wrap filled with grilled chicken, spinach, grated carrot, sliced cucumber, and capsicum for added vegetables.
- Afternoon Snack – Replace the Mars Bar
  Swap the Mars Bar for carrot sticks, and cherry tomatoes paired with a small serving of hommus.
- Dinner – Modify the Souvlaki Meal
  Add a side of roasted vegetables such as zucchini, eggplant and red onion to accompany the lamb souvlaki and pita bread.

c) The data identifies a deficiency of iodine in Alex's diet. What health consequence might this deficiency lead to? Suggest **two (2)** changes to his diet that will improve his iodine levels. **(3 marks)**

Although Alex does not have a deficiency of iodine—his intake level is 306% of the Recommended Dietary Intake, sufficient to meet his nutrient needs—this did not impact students' ability to answer the question. Most students successfully explained the potential health consequences of an iodine deficiency and appropriately identified dietary changes that could hypothetically improve iodine levels if a deficiency were present.

**Successful responses included:**

- Goitre – Enlargement of the thyroid gland caused by iodine deficiency.
- Hypothyroidism - Fatigue, weight gain and difficulty concentrating due to reduced thyroid hormone production.
- Thyroid dysfunction – Severe deficiency disrupts metabolism and hormonal balance.

Changes to the diet could include:

- Choose commercially produced bread: These are fortified with iodine through iodised salt, providing a reliable source of iodine.
- Incorporate seafood into meals: Options such as salmon, prawns or scallops are naturally rich in iodine.
- Include vegetables grown in iodine-rich soil: Vegetables like carrots or potatoes from iodine-rich regions can contribute to iodine intake.
- Use iodised salt sparingly: Replace regular table salt with iodised salt for cooking or seasoning, while monitoring overall sodium intake.
- Increase dairy consumption: Milk, yoghurt, and cheese are excellent sources of iodine and can be easily integrated into meals or snacks.

d) Guideline 3 of the ADG recommends 'limiting intake of foods containing saturated fat, added salt, added sugars and alcohol.'
Alex's sodium intake has been identified as excessive. Identify **three (3)** foods in Alex's diet that are high in sodium and suggest **three (3)** substitutions Alex could make to decrease his salt intake. **(3 marks)**

While many students successfully identified high-sodium foods such as bread, crumpets, butter, and the McDonald's Crispy Caesar Wrap, others named items like chocolate, Coca-Cola, and almonds. These examples were not accepted, as there were more appropriate and evident high-sodium options available. Students should focus on processed or salty foods typically associated with higher sodium content when making their selections.

**Successful responses included:**

- Peanut butter – Alex could spread his crumpets with avocado or tahini instead.
- Gatorade – Alex could drink plain water with a slice of lemon or lime in it to give it a bit of flavour.
- Raisin Toast – Alex could have an apple instead for a morning snack.
- McDonalds Crispy Caesar Wrap – Alex could have a wholegrain sandwich with lean chicken, lettuce and tomato for a healthier option.

For student reference: Sodium (Salt) – When selecting foods, opt for lower-sodium options. Foods with less than 400 mg of sodium per 100 g are considered good choices, while those with less than 120 mg per 100 g are ideal (How much sodium is in Australian foods? | Food Standards Australia New Zealand)

e) Alex is consuming an excessive amount of saturated fat. Suggest substitutions for **three (3)** foods that would be beneficial in reducing Alex's saturated fat intake and improve the polyunsaturated and monounsaturated fat levels in his diet. **(3 marks)**

Some students selected foods like peanut butter for swaps, which, while not high in saturated fat, is a good source of monounsaturated fats. Stronger responses identified foods with a significant contribution to Alex's saturated fat intake and suggested swaps that would lower saturated fat while improving the ratio of polyunsaturated and monounsaturated fats in his diet. It was also important for students to recognise that saturated fat needed to be limited due to Alex's high BMI and energy intake. Suggestions needed to be both nutritionally beneficial and practical.

**Successful responses included:**

- Alex could replace the McDonald's Crispy Caesar Wrap with a wholegrain salad wrap containing grilled chicken, avocado, and olive oil dressing for more monounsaturated fats.
- Swapping full-cream milk in his mocha and Milo for fortified soy milk can reduce saturated fat while adding polyunsaturated fats.
- The custard and cream doughnut could be substituted with fresh fruit topped with a sprinkle of chia seeds or walnuts to increase polyunsaturated fats.
- Chocolate-coated almonds could be replaced with plain almonds or walnuts, boosting both monounsaturated and polyunsaturated fat intake.
- Butter could be swapped for spreads like avocado, tahini, or a drizzle of olive oil, all of which are rich in monounsaturated fats.

# Section C – Criterion 2 and 8

Section C of the TASC Food and Nutrition exam assessed Criterion 2 and Criterion 8 through two essay questions: one examining food security and the other exploring ecological sustainability. As in previous years, it was apparent a large number of students used pre-learned essays. This was more notable in the ecological sustainability essay question. Students who did well were able to adapt and use their knowledge in a practical and appropriate format to suit the essay questions.

## Criterion 2

Communicate ideas and information in a variety of forms

Strong Responses Structure:

- Featured a clear and logical structure, including an introduction, well-organised body paragraphs and a concise conclusion that avoided introducing new concepts or data.
- Presented ideas effectively, with accurate information and a coherent flow addressing all parts of the question.
- Used formal language, correct spelling, grammar, and subject-specific terminology throughout.

- Incorporated logically formatted paragraphs and topic sentences that aligned closely with the essay question, enhancing clarity and overall coherence.
- Demonstrated critical thinking by analysing and evaluating ideas.
- Integrated evidence to support arguments effectively.
- Directly addressed key terms in the question to ensure focus.
- Provided original insights that reflected a deep understanding of the subject.

| Rating | Expression | English usage | Use of terminology | Structure |
|---|---|---|---|---|
| **A** | Clearly and accurately conveys ideas and information in a logical, coherent manner. | English usage is correct including grammar, spelling of technical/specialised terms, punctuation, accurate sentence structure and effective use of paragraphs. | Correctly uses specialised terminology when discussing food and nutrition issues. | Sophisticated introduction, body paragraphs and conclusion.<br><br>Skilful use of topic sentences. |
| **B** | Clearly and accurately conveys ideas and information in a logical manner. | English usage is correct including grammar, spelling, punctuation, sentence structure and use of paragraphs. | Correctly uses terminology when discussing food and nutrition issues. | Uses introduction, body paragraphs and conclusion.<br><br>Uses topic sentences. |
| **C** | Conveys ideas and basic information in a logical manner. | Produces written work in which basic English usage is correct, including grammar, spelling of common words, simple punctuation, sentence structure and use of paragraphs. | Correctly uses basic terminology when discussing food and nutrition issues. | Very basic introduction, paragraphs and simple conclusion. |
| **t** | Attempts to convey ideas and information, but response is incoherent or disjointed. | Numerous errors in spelling, grammar, simple punctuation and sentence structure. | Incorrectly uses or does not use basic terminology in discussion of food and nutrition issues. | Limited use of paragraphs.<br><br>Missing introduction and/or conclusion.<br><br>No clear structure to response. |

# Criterion 8

Identify and analyse food related issues

- While many students demonstrated a foundational understanding of the material, some responses would have benefited from deeper analysis and a more critical engagement with the topic.
- In a few cases, students relied on pre-prepared responses, which, although showing some relevant knowledge, occasionally struggled to address the specific nuances of the questions.
- The inclusion of additional, well-chosen examples and evidence could have strengthened arguments in several essays, making them more compelling and impactful.
- A focus on concise and targeted responses would improve clarity, as some essays included information that, while interesting, was not directly relevant to the question.

## Question 10

**Note**: Refer to page 4 of Section C for the stimulus used in the exam paper.

**Explains the term 'food security' and identifies the pillars it is based on:**

Most students addressed this section well, providing accurate definitions of food security and identifying its pillars. Students commonly referred to the three pillars provided in the stimulus (access, availability, food use) and those learned during the course (availability, accessibility, utilisation, and stability). Some also identified five pillars, which was acceptable if appropriate pillars were named. Stronger responses elaborated beyond definitions, discussing levels of food security and insecurity or the concept of a food security continuum, from food security to severe food insecurity and hunger.

**Examines the three components and discusses specific details of how they affect food security:**

High-performing students described each component in their own words and provided appropriate examples, such as explaining how food availability is affected by factors like natural disasters. Strong responses identified multiple ways each component impacts food security, exploring differing effects in developed and developing countries, including challenges like crop failures, dependence on imported foods and population growth.

Some students merely copied definitions from the stimulus or stated that a lack of availability or access leads to food insecurity, limiting their ability to demonstrate understanding. When discussing food use (or utilisation), most responses focused narrowly on nutrition knowledge, often overlooking significant factors like diet diversity and access to clean water and sanitation.

**Identifies and discusses one barrier to each component:**

Successful responses accurately identified and explicitly linked barriers to each component, supported by data or case studies. While students were not required to reference developing or developed countries, those who did often demonstrated a deeper understanding. Common errors included mismatching barriers with components, providing insufficient detail, or addressing only one barrier across all components, limiting depth unless the response was highly detailed.

Students should avoid inappropriate generalisations about factors like location, educational attainment, or Aboriginal Australians. To improve, they should provide data, concrete examples, and nuanced language to explore how specific circumstances impact access to nutritious food.

**Suggests a possible strategy to overcome the barrier:**

Detailed strategies with supporting examples, such as the role of organisations like the World Food Programme (WFP) in addressing natural disasters, were hallmarks of strong responses. These students explained how such strategies relate to food security components, e.g. improving food availability.

Simplistic strategies, such as ‘meal prepping’, ‘doing a bigger shop,’ or ‘growing your own food’, failed to demonstrate meaningful understanding. Similarly, suggestions like ‘cooking classes’ or the Health Star Rating as solutions for food utilisation lacked depth and relevance to the context of food security.

**Criterion 8 Rubric: Assessing Food Security Responses**

The following rubric outlines how Criterion 8 was assessed, focusing on students' ability to use evidence to develop conclusions and make recommendations in their extended response on food security.

| Rating | Explanation of Food Security | Examination of Components | Barriers and Strategies | Use of Evidence and Conclusions |
|---|---|---|---|---|
| **A** | Provides an exceptionally clear and precise definition of food security, correctly identifying the three pillars (availability, access, use) or a recognised alternative model (e.g. 4 pillars – availability, access, utilisation and stability) | Discusses the three components/pillars in-depth with sophisticated analysis, providing detailed and accurate examples. | Identifies insightful barriers for each component and suggests innovative, evidence-based strategies to address them, using examples effectively. | Supports all points with exceptional use of evidence, including relevant data, case studies, and references. Draws comprehensive, logical, and well-integrated conclusions. |
| **B** | Provides a clear definition and identifies the three or four pillars, though explanations may be basic or less precise. | Discusses the three components adequately, using relevant but less detailed examples. | Identifies barriers and suggests strategies, though some may lack practicality or depth. | Provides relevant evidence but inconsistently integrates it into the discussion. Draws logical conclusions, though some may lack depth. |
| **C** | Provides a basic definition but may confuse or omit one or more pillars. | Mentions the components but lacks clarity or relevance in the discussion. | Identifies barriers and provides a basic profile, with general strategies. | Relies on limited evidence, with significant gaps in support. Conclusions are simplistic. |
| **t** | Attempts to discuss food security but shows fundamental misunderstandings. Evidence is minimal or incorrect. | Mentions components with major inaccuracies or irrelevance. | Fails to identify barriers or suggests completely impractical strategies. | Shows limited understanding with minimal adherence to structural requirements. |

## Question 11

**Note**: Refer to page 5 of Section C for the stimulus used in the exam paper.

**Explains the term 'ecological sustainability':**

High-performing students provided accurate definitions, incorporating key concepts such as resource use, maintaining the planet's capacity and function, and ensuring resources for future generations.

**Discusses and explains sustainable food systems (Primary, Secondary, and Tertiary), using examples and relevant global and Australian statistics:**

While the terms 'primary, secondary, and tertiary' are not in the course document, students who identified food systems as production, processing and consumer practices were correct. Strong responses described each sector, provided examples of sustainable practices, and included explanations, such as defining food processing as the conversion of raw materials to edible forms, often including packaging.

Many students used pre-learned paragraphs, focusing on barriers to ecological sustainability rather than sustainable practices. However, strong responses included global and Australian data, such as reduced chemical use, regenerative agriculture, and lower water usage during production, demonstrating a comprehensive understanding of sustainability across the food system.

**Discusses one (1) barrier to sustainable food systems:**

High-quality responses dedicated a separate paragraph to one barrier, supported by data and sophisticated terminology describing environmental impacts. Many students, however, addressed multiple barriers across food system sectors rather than exploring one in detail, which limited their depth of analysis.

**Criterion 8 Rubric: Assessing Ecological Sustainability Responses**

The following rubric outlines how Criterion 8 was assessed, focusing on students' ability to use evidence to develop conclusions and make recommendations in their extended response on ecological sustainability.

| Rating | Definition of Ecological Sustainability | Discussion of Sustainable Food Systems | Barrier |
|---|---|---|---|
| **A** | Provides an exceptionally clear and precise definition of ecological sustainability, linking directly to food systems. | Offers a sophisticated and detailed analysis of sustainable food systems supported by relevant Australian and global examples, data and statistics. | Identifies an insightful barrier and provides a comprehensive discussion including clear and reasoned arguments and examples of impacts on sustainability. |
| **B** | Provides a clear but basic definition with limited connection to food systems. | Discusses sustainable food systems adequately, with less detailed examples or analysis. | Identifies a barrier and provides a discussion of impacts on sustainability but with limited examples and supporting evidence. |
| **C** | Attempts a definition but confuses key concepts. | Mentions systems briefly, with unclear examples. | Identifies a barrier and provides a basic outline of impacts on sustainability. |
| **t** | Attempts to define ecological sustainability but shows fundamental misunderstandings or does not provide a definition. | Mentions systems superficially with little clarity. | Barriers are absent, irrelevant or overly simplistic. |

# Section D – Criterion 2 and 8
# Part 1

Section D of the TASC Food and Nutrition exam assessed Criterion 6, focusing on the ability to analyse a range of factors that impact food choices. Students were required to respond to questions that explored various influences, including emotional connections to food, geographical and economic constraints, and the effects of advertising on food choices and self-concept.

## Question 12

The connection between food and emotions can be very strong. Give **three (3)** different examples – one for a child, one for an adult and one for an elderly person – that support this statement. **(6 marks)**

Some students provided vague or overly generalised responses, such as "children like sweets" or "adults eat comfort food." To improve, students should ensure their examples are specific, detailed and directly tied to emotional connections, explaining why the food evokes a particular feeling or memory. Including both positive and negative examples can strengthen responses and show a broader understanding of the concept. High-quality responses included specific, detailed examples for each group (child, adult and elderly) that clearly linked food to emotional experiences.

**Successful responses included:**

- Child – A child may associate certain foods with happy memories, such as birthday cake or chocolate during celebrations. These foods often evoke feelings of joy and excitement.
- Adult – An adult may turn to comfort foods during times of stress to improve their mood. For instance, some may crave chocolate or ice cream when feeling overwhelmed.
- Elderly Person – An elderly person may find comfort in familiar foods, like homemade soup (e.g. chicken) or apple crumble, that evoke nostalgia and a sense of connection to their past.

## Question 13

Explain how geographical location and an individual's economic situation affect food choices? Outline how living in rural Tasmania might influence food selection and provide **two (2)** Tasmanian food examples. **(4 marks)**

High-quality responses described how rural areas, such as Tasmania, often experience limited access to fresh food and higher prices due to transport costs and distance. To improve their responses, students should include specific Tasmanian food examples, such as salmon and apples and clearly link these examples to the local geography. Addressing both geographical and economic factors in concise and specific terms will strengthen responses and demonstrate a thorough understanding of the question.

**Successful responses included:**

- Geographical location affects food choices by influencing the availability and price of foods. In rural Tasmania, limited access to large supermarkets can make it harder to source tropical ingredients like mangoes or prawns, while local produce such as Tasmanian salmon and apples is more readily available. Economic situation further impacts food choices, as individuals with lower incomes may opt for cheaper, less perishable options instead of fresh or premium ingredients.

## Question 13

How can advertising influence food choice and be either a positive or negative influence on self-concept? Give **two (2)** examples of advertisements and how they may influence food choice and self-concept. **(5 marks)**

Most students demonstrated an understanding of how advertising influences food choices and self-concept. To improve, students should ensure their examples are specific and nuanced. For instance, discussing both positive campaigns from credible organisations and the potential harm caused by unqualified influencers strengthens responses. Additionally, linking the examples to their direct impact on food choices and self-concept—such as promoting balanced eating or setting unrealistic expectations—is crucial for full marks.

**Successful responses included:**

Advertising, particularly through social media, heavily influences food choices and self-concept by targeting trends, aspirations, and emotions.

Positive Examples:

- Campaigns by reputable organisations, like the Heart Foundation or Cancer Council, that promote balanced diets or healthier snack swaps on platforms like Instagram or YouTube can encourage people to make informed food choices. These campaigns can boost self-concept by fostering confidence in making healthier decisions.
- Advertisements for fresh produce, such as a campaign encouraging people to "Eat More Fruit and Veg", may promote a positive self-concept by aligning healthy food choices with well-being, fitness and vitality.
- Initiatives like "Move Well Eat Well" or campaigns promoting healthy lunchbox ideas through schools and social media could inspire healthier food choices among children, boosting their self-esteem through positive reinforcement.

Negative Examples:

- Social media influencers without formal qualifications often promote unrealistic dietary trends, such as extreme detox plans or exclusive “superfood” diets, which can mislead individuals. These ads may harm self-concept by setting unattainable body standards or encouraging disordered eating habits.
- People using platforms like YouTube or Spotify may encounter frequent ads for fast-food combos with messages such as “treat yourself” or “everyone loves this”. These ads encourage impulsive, less nutritious choices and may promote unhealthy eating patterns.
- Brands like Red Bull and Monster use extreme sports or gaming sponsorships to target individuals, promoting energy drinks as essential for performance or social status. These ads can mislead people into associating such drinks with success or acceptance, despite their potential negative health impacts.

# Part 2

## Criterion 2

High-scoring responses for Criterion 2:

- Responses were organised into clear, concise paragraphs, with each sub-factor addressed separately.
- Paragraphs were well-structured, with adequate spacing and key terminology emphasised to enhance readability.
- High-quality responses clearly defined each sub-factor and explained its relevance to the case study, demonstrating a deeper understanding of the connection between theory and practical application.
- Spelling, grammar, sentence structure and punctuation were consistently accurate throughout.
- Full words were used instead of abbreviations, ensuring clarity and professionalism.
- Terminology such as "physiological", "psychological", "social", "values" and "beliefs" was applied correctly and used frequently.
- Language was sophisticated, with complete sentences contributing to a polished and coherent response.

## Criterion 6

High-scoring responses for Criterion 6 included:

- Accurately identifying the correct sub-factor within the broader factor discussed, such as recognising 'values' as a 'psychological factor'.
- Providing a detailed evaluation of the sub-factor by defining, explaining, and justifying it in relation to the factors influencing food choice.
- Demonstrating breadth by referencing a variety of factors within their answers.
- Effectively linking the sub-factor to specific foods or a range of foods that an individual might choose.

Common issues that impacted performance on Criterion 6 included:

- While most students could identify sub-factors for each person, many found it challenging to evaluate these sub-factors, often providing overly brief responses.
- Some responses simply repeated information from the scenario without elaborating or explaining its impact on the food choices of the family members.
- Points were only awarded for stating a sub-factor once per question. Students who repeated the same sub-factor did not receive additional credit.
- Incorrectly matching the explanation to the sub-factor identified.
- Including dietary modification advice unrelated to this section of the exam, which did not score well.

**Successful responses included:**

<u>Anna's Food Choices</u>
At University:

- Psychological – Habits
  A habit is a repeated action performed regularly. Anna's preference for fast food reflects a habit developed while living away from home, where fast food is more accessible and convenient compared to her rural hometown.

- Economic – Time
  Time refers to the availability an individual has to plan, prepare, and consume meals. Balancing basketball, retail work, and studies limits Anna's time for meal preparation, pushing her toward quick, ready-made meals or fast food that fits her busy schedule.

At Home:

- Economic – Food Availability
  Food availability refers to the variety and accessibility of foods in a particular location. Living in rural Tasmania limits Anna's family's access to diverse food options due to the distance to large supermarkets. Her family relies on local produce and preserved foods, such as potatoes, apples, or home-grown vegetables, shaping her food choices.

Bing's Food Choices

At University:

- Social – Cultural Traditions
  Cultural traditions refer to the practices and customs that influence food choices within a specific cultural group. Bing prefers familiar vegetarian dishes like noodles and fried rice, reflecting her Beijing upbringing and maintaining her cultural identity while living in Tasmania.
- Physiological – Nutritional Requirements
  Nutritional requirements refer to the specific types and amounts of nutrients an individual needs for optimal health. As a vegetarian, Bing requires foods high in protein and iron to maintain her health, such as tofu and legumes, which align with her dietary preferences.

At Home:

- Psychological – Emotions
  Emotions are feelings that influence food choices based on comfort, nostalgia, or connection. Returning home to Beijing during semester breaks allows Bing to enjoy traditional meals prepared by her family, evoking a sense of comfort and connection to her cultural roots.

Billie's Food Choices

At University:

- Physiological – Level of Activity
  Level of activity refers to how physical exertion impacts an individual's energy and nutrient needs. Billie's training for half marathons increases her need for energy-dense and protein-rich foods, such as pasta with lean meat or quinoa salads, to support endurance and recovery.
- Psychological – Values
  Values are personal beliefs or principles that influence food choices. Billie values moderation, as seen in her decision to indulge in pizza only once a month, reflecting her disciplined approach to maintaining a healthy diet alongside her running schedule.

At Home:

- Social – Household Roles
  Household roles refer to how family dynamics and responsibilities influence food choices. At home in Melbourne, Billie may rely on meals prepared by her parents, which might differ from her university routine and include a wider variety of fresh, nutrient-rich foods.