



Rewarding Learning

**ADVANCED
General Certificate of Education**

Health and Social Care

Assessment Unit A2 7

assessing

Human Nutrition and Health

[AHC71]

Assessment

**MARK
SCHEME**

Additional Guidance for teachers for 2021 only

You will find it useful to view the EEP webinar to help you gauge the standard for this assessment.

Please read the general marking instructions that follow before you begin marking.

Some additional points that will help you use the mark scheme:

- The questions where QWC (quality of written communication) is assessed are identified on the front cover of the paper. In all other questions on the paper QWC should not influence the marking.
- Where you see “all other valid responses will be given credit”, if you think a response which is not on the mark scheme may be correct, you should check it for accuracy and award the marks if appropriate.
- Avoid awarding marks twice for repeated points in a question.
- When a question requires a specific number of points to be given (e.g. one example, two advantages, three ways), only that number of points can achieve marks. Where a student makes more points than the number required, their best points should be selected for marking. In these types of questions, compensation may be used; this means that a correct additional point in one part of the answer can be awarded marks where another part of the answer is incorrect or blank.
- For extended responses, you need to read the level descriptors carefully to help you make a judgement. There is further advice in the general marking instructions.
- You may find it useful to annotate the responses to help you decide on and justify the marks you award.

General Marking Instructions

Introduction

The main purpose of a mark scheme is to ensure that examinations are marked accurately, consistently and fairly. The mark scheme provides examiners with an indication of the nature and range of candidates' responses likely to be worthy of credit. It also sets out the criteria which they should apply in allocating marks to candidates' responses.

Assessment objectives

Below are the assessment objectives for **GCE Health and Social Care**.

Candidates should be able to:

- AO1** Demonstrate knowledge and understanding of the specified content.
- AO2** Apply knowledge, understanding and skills to a variety of health, social care and early years contexts.
- AO3** Investigate, analyse, and evaluate acquired knowledge and understanding, present arguments, make reasoned judgements and draw conclusions.

Quality of candidates' responses

In marking the examination papers, examiners should be looking for a quality of response reflecting the level of maturity which may reasonably be expected of a 17 or 18-year-old which is the age at which the majority of candidates sit their GCE examinations.

Flexibility in marking

Mark schemes are not intended to be totally prescriptive. No mark scheme can cover all the responses which candidates may produce. In the event of unanticipated answers, examiners are expected to use their professional judgement to assess the validity of answers. If an answer is particularly problematic, then examiners should seek the guidance of the Supervising Examiner.

Positive marking

Examiners are encouraged to be positive in their marking, giving appropriate credit for what candidates know, understand and can do rather than penalising candidates for errors or omissions. Examiners should make use of the whole of the available mark range for any particular question and be prepared to award full marks for a response which is as good as might reasonably be expected of a 17 or 18-year-old GCE candidate.

Awarding zero marks

Marks should only be awarded for valid responses and no marks should be awarded for an answer which is completely incorrect or inappropriate.

Types of mark schemes

Mark schemes for tasks or questions which require candidates to respond in extended written form are marked on the basis of levels of response which take account of the quality of written communication.

Other questions which require only short answers are marked on a point for point basis with marks awarded for each valid piece of information provided.

Levels of response

In deciding which level of response to award, examiners should look for the ‘best fit’ bearing in mind that weakness in one area may be compensated for by strength in another. In deciding which mark within a particular level to award to any response, examiners are expected to use their professional judgement.

The following guidance is provided to assist examiners.

- **Threshold performance:** Response which just merits inclusion in the level and should be awarded a mark at or near the bottom of the range.
- **Intermediate performance:** Response which clearly merits inclusion in the level and should be awarded a mark at or near the middle of the range.
- **High performance:** Response which fully satisfies the level description and should be awarded a mark at or near the top of the range.

Quality of written communication

Quality of written communication is taken into account in assessing candidates’ responses to all tasks and questions that require them to respond in extended written form. These tasks and questions are marked on the basis of levels of response. The description for each level of response includes reference to the quality of written communication.

For conciseness, quality of written communication is distinguished within levels of response as follows:

- Level 1: Quality of written communication is basic.
- Level 2: Quality of written communication is adequate.
- Level 3: Quality of written communication is competent.
- Level 4: Quality of written communication is highly competent.

In interpreting these level descriptions, examiners should refer to the more detailed guidance provided below:

Level 1 (Basic): The candidate makes only a limited attempt to select and use an appropriate form and style of writing. The organisation of material may lack clarity and coherence. There is little use of specialist vocabulary. Presentation, spelling, punctuation and grammar may be such that intended meaning is not clear.

Level 2 (Adequate): The candidate makes a reasonable attempt to select and use an appropriate form and style of writing. Relevant material is organised with some clarity and coherence. There is some use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are sufficiently competent to make meaning evident.

Level 3 (Competent): The candidate successfully selects and uses the most appropriate form and style of writing. Relevant material is organised with a high degree of clarity and coherence. There is extensive and accurate use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of a high standard and ensure that meaning is clear.

Level 4 (Highly competent): The candidate successfully selects and uses the most appropriate form and style of writing. Relevant material is extremely well organised with the highest degree of clarity and coherence. There is extensive and accurate use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of the highest standard and ensure that meaning is absolutely clear.

- 1 (a) Write down **four** foods which can make IBS diarrhoea worse for some people. (AO1)

Answers may include any four foods from the following groups:

(Candidates may choose more than one food from a group)

- fibre rich foods, especially the insoluble kind in the skin of fruits and vegetables
- food and drinks with chocolate, alcohol, caffeine, fructose, or sorbitol.
- carbonated drinks
- fried and fatty foods

All other valid responses will be given credit

(4 × [1])

[4]

- (b) Explain how the following foods may ease the symptoms of Crohn's disease. (AO1, AO2)

Examples of suitable explanations:

Yoghurt

- probiotics in yoghurt are a certain type of friendly bacteria that are supposed to colonize the gut with health-boosting microorganisms, which can help in aiding with recovery of the intestine

All other valid responses will be given credit

[1] basic explanation [2] competent explanation

(1 × [2])

[2]

Oily Fish

- oily fish such as salmon, tuna, and herring contain omega-3 fatty acids, which have anti-inflammatory properties and may help reduce the aggravation that causes Crohn's symptoms

All other valid responses will be given credit

[1] basic explanation [2] competent explanation

(1 × [2])

[2]

- (c) Summarise how individuals with peanut allergies can protect themselves. (AO1, AO2)

Examples of points to be included in the summary:

- remove the offending food (i.e. peanuts) from the diet
- read labels
- when purchasing unpackaged food, e.g. bread in a supermarket, let the staff know/ask the staff about ingredients
- read menus carefully to check for ingredients or ask staff, e.g. cooking oil may be peanut based

All other valid responses will be given credit

[1] basic summary [2] adequate summary [3] competent summary

(1 × [3])

[3]

(d) (i) Summarise the symptoms of iron deficiency anaemia. (AO1, AO2)

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Examples of suitable symptoms to be described:

- extreme fatigue
- weakness
- pale skin
- chest pain, fast heartbeat or shortness of breath
- headache, dizziness or light headedness
- cold hands and feet
- inflammation or soreness of the tongue
- brittle nails

All other valid responses will be given credit

[1] basic summary [2] adequate summary [3] competent summary
(1 × [3]) [3]

(ii) Discuss the dietary advice a GP may offer a patient whose diet is contributing to iron deficiency anaemia. (AO1, AO2, AO3)

Examples of the suitable advice to be discussed:

- eat more iron rich foods such as:
 - dark-green leafy vegetables like watercress and curly kale
 - cereals and bread with extra iron in them (fortified)
 - meat (especially beef, veal and liver)
 - pulses (beans, peas and lentils)
 - seafood and shellfish (especially oysters, tuna and sardines)
- eat less often or avoid foods which can interfere with iron absorption such as:
 - tea
 - coffee
 - milk and dairy
 - foods with high levels of phytic acid, such as wholegrain cereals, which can stop the body absorbing iron from other foods and pills.

All other valid responses will be given credit

[0] is awarded for a response not worthy of credit.

Level 1 ([1]–[3])

Overall impression: basic

- limited knowledge of the dietary advice a GP may offer a patient whose diet is contributing to iron deficiency anaemia
- demonstrates a limited ability to apply appropriate knowledge and understanding to the question
- demonstrates a limited ability to discuss the dietary advice a GP may offer a patient whose diet is contributing to iron deficiency anaemia.

Level 2 ([4]–[6])

Overall impression: adequate

- adequate knowledge of the dietary advice a GP may offer a patient whose diet is contributing to iron deficiency

- demonstrates an adequate ability to apply appropriate knowledge and understanding to the question
- demonstrates an adequate ability to discuss dietary advice a GP may offer a patient whose diet is contributing to iron deficiency anaemia.

Level 3 ([7]–[9])

Overall impression: competent

- competent knowledge of the dietary advice a GP may offer a patient whose diet is contributing to iron deficiency anaemia
- demonstrates a competent ability to apply appropriate knowledge and understanding to the question
- demonstrates a competent ability to discuss the dietary advice a GP may offer a patient whose diet is contributing to iron deficiency anaemia.

[9]

(e) Explain why the following dietary advice is given.

- (i)** The average intake of salt by the adult population should be no more than 6 g per day. (AO1, AO2)

Example of a suitable explanation:

- a diet high in salt can cause raised blood pressure, which can increase the risk of heart disease and stroke.

[1] basic explanation [2] competent explanation

(1 × [2])

[2]

- (ii)** Choose unsaturated oils. (AO1, AO2)

Example of a suitable explanation:

- unsaturated oils both monounsaturated or polyunsaturated are better for health
- these oils help reduce the risk of heart disease – they lower ‘bad’ cholesterol levels and raise ‘good’ cholesterol

[1] basic explanation [2] competent explanation

(1 × [2])

[2]

- (f)** Summarise why recommended energy intakes are higher for teenagers than adults. (AO1, AO2)

Examples of points to be summarised:

- teenagers need more calories than adults because they are still growing, have a higher metabolism and may be more active

[1] basic summary [2] adequate summary [3] competent summary

(1 × [3])

[3]

- (g) Explain three ways each of the following factors influences the food choice of adults when shopping. (AO1, AO2)

Advertising

Example of suitable explanations:

- adults may choose foods advertised on television, in magazines and on posters
- adults may choose brands which pay a lot of attention to the aspirational lifestyle that is attached to their product, e.g. “healthy” and “low-fat” foods, or ‘organic foods grown without chemicals’
- adults may choose packaging which is made colourful and attractive to draw the attention of the customers
- adults may choose food which claims to promote clearer complexions, e.g. rich in Vitamin E
- adults may be influenced to make choices based on product placement, e.g. where references to specific brands or products are incorporated into a film or television programme
- adults may choose foods where advertising provides nutritional information, e.g. omega 3 for brain development, low fat, low sugar
- adults may choose foods where advertising is causing fear as a motivator (e.g. foods to reduce cholesterol).

[1] basic explanation [2] competent explanation

(3 × [2])

[6]

Economic

Example of suitable explanations:

- the amount of family budget allocated to food – limited budget can mean less options/less treats and the price may deter a family from making a choice
- store promotion – e.g. buy one get one free promotions, 50% extra free, special offers
- selling bigger sizes – the larger pack item may be purchased as better value
- low-income groups have a greater tendency to consume unbalanced diets choosing higher fat and sugar foods which provide dietary energy at very low cost due to prohibitive costs of other choices available and in particular have low intakes of fruit and vegetables
- low income families are likely to buy cheaper brands, cheaper cuts of meat
- the potential for food wastage leads to a reluctance to try ‘new’ foods for fear the family will reject them
- high end brand foods may not be purchased choosing instead a supermarket’s own brand
- a family may choose frozen or other convenience foods rather than fresh fruits and vegetables when foods are out of season
- a family may choose to shop in discount stores and use low cost suppliers rather than large supermarket chains.

[1] basic explanation [2] competent explanation

(3 × [2])

[6]

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- 2 (a) Examine the sources of any **three other** food poisoning bacteria and the symptoms of food poisoning. (AO1, AO2, AO3)

Answers may address **three** of the following food poisoning bacteria:

Salmonella

Sources:

- Any raw food of animal origin – such as meat, poultry, milk and dairy products, eggs, and seafood – and increasingly some fruits and vegetables may carry salmonella bacteria

Symptoms:

- Abdominal cramps, diarrhoea and vomiting which tend to appear 12–72 hours after infection

Campylobacter

Sources:

- found in the gut and faeces of animals and is commonly found in or on raw poultry

Symptoms:

- diarrhoea (frequently bloody), abdominal pain, fever, headache, nausea and/or vomiting

Escherichia Coli: E coli

Sources:

- eating contaminated food, such as ground beef or undercooked/raw meat, as when cattle are slaughtered and processed, E. coli bacteria in their intestines can get on the meat; unpasteurized milk and fresh produce

Symptoms:

- nausea, vomiting, stomach cramps, diarrhoea that is often bloody. Fever of 37.7 C–38.3 C (100 F–101 F), loss of appetite and mild dehydration

Staphylococcus aureus

Sources:

- commonly found on the skin or in the nose of even healthy individuals

Symptoms:

- nausea and vomiting, diarrhoea, dehydration and low blood pressure
- All other valid responses will be given credit.

No marks awarded for sources and/or symptoms of listeria.

[0] is awarded for a response not worthy of credit

Level 1 ([1]–[3])

Overall impression: basic

- limited knowledge of the sources of any three **other** food poisoning bacteria and the food poisoning symptoms they may present
- demonstrates a limited ability to apply appropriate knowledge and understanding to the question

- demonstrates a limited ability to examine the sources of any three **other** food poisoning bacteria and the food poisoning symptoms they may present.

Level 2 ([4]–[6])

Overall impression: adequate

- adequate knowledge of the sources of any three **other** food poisoning bacteria and the food poisoning symptoms they may present
- demonstrates an adequate ability to apply appropriate knowledge and understanding to the question
- demonstrates an adequate ability to examine the sources of any three **other** food poisoning bacteria and the food poisoning symptoms they may present.

Level 3 ([7]–[9])

Overall impression: competent

- competent knowledge of the sources of any three **other** food poisoning bacteria and the food poisoning symptoms they may present
- demonstrates a competent ability to apply appropriate knowledge and understanding to the question
- demonstrates a competent ability to examine the sources of any three **other** food poisoning bacteria and the food poisoning symptoms they may present. [9]

- (b) Focusing on cleaning, cooking, chilling and cross contamination, discuss safe practices for food storage and preparation. (AO1, AO2, AO3)

Examples of suitable points to be discussed:

Cleaning:

- wash or change dish cloths, tea towels, sponges and oven gloves regularly and let them dry before using them again. Dirty, damp cloths allow bacteria to breed
- keep all utensils and dishes clean before preparing food to avoid cross contamination
- use different utensils, plates and chopping boards for ready-to-eat foods and raw foods that require cooking, or wash them thoroughly between tasks
- worktops should be washed before and after preparing food using hot, soapy water

Cooking:

- cooking food causes the proteins in bacteria to break up so they no longer function and the bacteria die
- cooking removes the risk from harmful bacteria that are in some food
- cook food until it has reached an internal temperature of at least 75 °C or hotter and stays at that temperature for 2 minutes. Use a thermometer to check the temperature of cooked foods
- cook mince, sausages, whole chickens or stuffed meats right through to the centre. Juices should run clear and meat should not be pink
- cook steak, chops and whole cuts of red meat to preference; rare, medium or well done, as food poisoning bacteria are mostly on the surface
- cook fish until it flakes easily with a fork

- cook foods made from eggs such as omelettes and baked egg custards thoroughly

Chilling:

- chilling food properly helps stop harmful bacteria from growing
- chill foods with a 'use by' date, along with cooked dishes, salads and dairy products, in a fridge
- chilled food should be kept out of the fridge for the shortest time possible during preparation
- cool cooked food quickly at room temperature and then place in the fridge within one to two hours
- follow the storage instructions on packaging, including the best before and use-by dates
- keep the refrigerator temperature at or below 40 °F (4 °C) the coldest part of the fridge should be below 5 °C. The freezer temperature should be 0 °F (-18 °C)
- don't overfill the fridge. Leaving space allows air to circulate and maintains the set temperature
- freeze pre-packaged food right up to the 'use by' date
- leftovers and homemade goods should be frozen as soon as possible. Make sure any warm dishes are cooled before putting them in the freezer
- to stop the cold air in a freezer from drying out place food in an air-tight container, wrap it well in freezer bags or freezer wrap

Cross contamination:

- to avoid cross contamination prepare food hygienically using different utensils, plates and chopping boards for raw and cooked food
- wash utensils, plates and chopping boards for raw and cooked food thoroughly between tasks
- wash hands after touching raw food and before handling ready-to-eat food
- store food effectively – cover raw food, including meat, and keep it separate from ready-to-eat food
- store covered raw meat, poultry, fish and shellfish on the bottom shelf of the fridge, use any dish that has a lip to prevent spillages

All other valid points will be given credit

[0] is awarded for a response not worthy of credit.

Level 1 ([1]–[5])

Overall impression: basic

- basic knowledge and understanding of safe practices for food storage and preparation
- demonstrates a limited ability to apply appropriate knowledge and understanding to the question
- demonstrates a limited ability to discuss safe practices for food storage and preparation
- quality of written communication is basic. The candidate makes only a limited attempt to select and use an appropriate form and style of writing. The organisation of material may lack clarity and coherence. There is little use of specialist vocabulary. Presentation, spelling, punctuation and grammar may be such that intended meaning is not clear

Level 2 ([6]–[10])

Overall impression: adequate

- adequate knowledge and understanding of safe practices for food storage and preparation
- demonstrates an adequate ability to apply appropriate knowledge and understanding to the question
- demonstrates an adequate ability to discuss safe practices for food storage and preparation
- candidates must discuss at least two of the 4Cs to achieve at this level
- quality of written communication is adequate. The candidate makes a reasonable attempt to select and use an appropriate form and style of writing. Relevant material is organised with some clarity and coherence. There is some use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are sufficiently competent to make meaning evident.

Level 3 ([11]–[14])

Overall impression: competent

- competent knowledge and understanding of safe practices for food storage and preparation
- demonstrates a competent ability to apply appropriate knowledge and understanding to the question
- demonstrates a competent ability to discuss safe practices for food storage and preparation
- candidates must discuss at least three of the 4Cs to achieve at this level
- quality of written communication is competent. The candidate successfully selects and uses the most appropriate form and style of writing. Relevant material is organised with a high degree of clarity and coherence. There is extensive and accurate use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of a high standard and ensure that meaning is clear.

Level 4 ([15]–[18])

Overall impression: highly competent

- highly competent knowledge and understanding of safe practices for food storage and preparation
- demonstrates a highly competent ability to apply appropriate knowledge and understanding to the question
- demonstrates a highly competent ability to discuss safe practices for food storage and preparation
- candidates must discuss all of the 4Cs to achieve at this level
- quality of written communication is highly competent. The candidate successfully selects and uses the most appropriate form and style of writing. Relevant material is extremely well organised with the highest degree of clarity and coherence. There is extensive and accurate use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of the highest standard and ensure that meaning is absolutely clear.

[18]

- (c) Discuss **four** reasons why water and fluid intake is important for children. (AO1, AO2, AO3)

Examples of suitable points to be discussed:

- water keeps the tissues in the body moist. Keeping a child's body hydrated helps it retain optimum levels of moisture in these sensitive areas, as well as in the blood, bones, and the brain
- water helps protect the spinal cord, and it acts as a lubricant and cushion for joints
- water keeps the body hydrated. Younger children can't ask for a drink or say they are thirsty so children are particularly vulnerable to dehydration causing increased thirst
- water regulates the body's temperature; sweating is a very effective way of reducing the body's temperature
- water aids digestion which starts with saliva, the basis of which is water. Digestion relies on enzymes that are found in saliva to help break down food and liquid and to dissolve minerals and other nutrients. Proper digestion makes minerals and nutrients more accessible to the body
- water is also necessary to help digest soluble fibre. With the help of water, this fibre dissolves easily and benefits bowel health of children, preventing constipation by making well-formed, soft stools that are easy to pass
- water intake enables the body to excrete waste through perspiration, urination, and defecation. The kidneys and liver use it to help flush out waste, as do the intestines

All other valid points will be given credit

[0] is awarded for a response not worthy of credit.

Level 1 ([1]–[4])

Overall impression: basic

- basic knowledge and understanding of four reasons water and fluid intake is important for children
- demonstrates a limited ability to apply appropriate knowledge and understanding to the question
- demonstrates a limited ability to discuss four reasons water and fluid intake is important for children
- quality of written communication is basic. The candidate makes only a limited attempt to select and use an appropriate form and style of writing. The organisation of material may lack clarity and coherence. There is little use of specialist vocabulary. Presentation, spelling, punctuation and grammar may be such that intended meaning is not clear.

Level 2 ([5]–[7])

Overall impression: adequate

- adequate knowledge and understanding of four reasons water and fluid intake is important for children
- demonstrates an adequate ability to apply appropriate knowledge and understanding to the question
- demonstrates an adequate ability to discuss four reasons water and fluid intake is important for children

- candidates must discuss at least two reasons to achieve at this level – two reasons achieve a maximum of six marks
- quality of written communication is adequate. The candidate makes a reasonable attempt to select and use an appropriate form and style of writing. Relevant material is organised with some clarity and coherence. There is some use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are sufficiently competent to make meaning evident.

Level 3 ([8]–[12])

Overall impression: competent

- competent knowledge and understanding of four reasons water and fluid intake is important for children
- demonstrates a competent ability to apply appropriate knowledge and understanding to the question
- demonstrates a competent ability to discuss four reasons water and fluid intake is important for children
- candidates must discuss at least three reasons to achieve at this level and four reasons to achieve nine marks or more
- quality of written communication is competent. The candidate successfully selects and uses the most appropriate form and style of writing. Relevant material is organised with a high degree of clarity and coherence. There is extensive and accurate use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of a high standard and ensure that meaning is clear. [12]

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- 3 (a) The Eatwell Guide was launched in 2016 by the Food Standards Agency to update dietary recommendations. The Eatwell Guide is split into five food groups. Analyse the dietary guidelines given for each food group. (AO1, AO2, AO3)

Examples of the dietary guidelines to be analysed:

- fruit and vegetables should make up a third of a healthy diet. Research shows that eating a variety of five or more portions of fruit and vegetables every day can help prevent heart disease and reduce the risk of some types of cancer. Fruit and vegetables are a good source of fibre and contain vitamins and minerals. They make a great low fat snack and add colour, flavour and texture to main dishes. Fresh fruit and vegetables are great, but tinned and frozen varieties are also convenient and healthy – just choose fruit tinned in juice rather than syrup and vegetables in water rather than salt water
- potatoes, bread, rice, pasta and other starchy carbohydrates: foods from this group are a good source of energy and B vitamins. It is recommended to make them the basis/one third of meals. They all contain some fibre but the wholegrain varieties contain more. Potatoes, bread, rice, pasta and other starchy carbohydrates like cereals are low in fat – use them to create meals that are both delicious and healthy
- dairy and alternatives: milk and dairy foods (yoghurt and cheese) are a good source of protein, calcium, vitamins A and D and vitamin B12. Choose lower fat varieties of milk and cheese such as semi-skimmed milk, Edam, cottage cheese and half fat cheddar. Calcium is important for healthy bones, the milk in milk puddings and sauces can help you get enough. Semi-skimmed and skimmed milk contain just as much calcium as whole milk but less fat, so they are a great choice
- beans, pulses, fish, eggs, meat and other proteins. Foods from this group are good sources of protein, vitamins and minerals. Protein helps the body build and repair cells, and we need to eat a small amount every day. Good vegetable sources of protein include nuts and pulses such as lentils, chickpeas, peas and beans – they also provide fibre, B vitamins and iron. Pulses are cheap and try substituting Quorn, soya or tofu for meat in all sorts of dishes. Fish is a good source of protein – try to eat it at least twice a week and make sure one portion a week is an oily fish. White fish such as cod, haddock and pollock are low in fat. Oily fish such as sardines, mackerel, salmon or trout are rich in omega 3 fats, which protect against heart disease and stroke. Eggs are a tasty alternative to meat or fish and are easy and quick to prepare. They are a good source of protein and vitamins A and D. Meat, particularly red meat, is an excellent source of iron which can help prevent iron deficiency anaemia. Chicken is a good source too. Cut the visible fat off meat before cooking it. The fat contained in chicken is found in the skin so it is best to remove this. Choose the leaner cuts of meat. Processed meat and chicken products tend to be high in fat and salt, so limit them to once a week or less. Grill or bake them rather than frying, placing them on a rack to allow the excess fat to drain off and don't add any fat or salt while cooking
- oils and spreads: the type of fat eaten is important; although all fat is high in calories and can result in weight gain, some fats have other health risks. Good fats (unsaturated fats including both monounsaturated or polyunsaturated) are better for our health, so when buying spreads

and oils look for the ones labelled high in mono or polyunsaturates such as olive oil, rapeseed oil, corn oil or sunflower oil. It is particularly important to cut down on bad fats (saturated or trans fats) as they encourage fat to become deposited in arteries, raising the risk of heart attacks or stroke. These bad fats are also more likely to raise cholesterol levels. Saturated fats can be found in bought cakes, processed meat and meat products such as burgers, sausage rolls, pasties, savoury snacks such as crisps, butter, cheese and cream. Trans fats are also found in many of the processed foods listed above and have similar health risks to saturated fats.

All other valid points will be given credit

[0] is awarded for a response not worthy of credit.

Level 1 ([1]–[5])

Overall impression: basic

- basic knowledge and understanding of the dietary guidelines given for each food group
- demonstrates a limited ability to apply appropriate knowledge and understanding to the question
- demonstrates a limited ability to analyse the dietary guidelines given for each food group
- quality of written communication is basic. The candidate makes only a limited attempt to select and use an appropriate form and style of writing. The organisation of material may lack clarity and coherence. There is little use of specialist vocabulary. Presentation, spelling, punctuation and grammar may be such that intended meaning is not clear.

Level 2 ([6]–[10])

Overall impression: adequate

- adequate knowledge and understanding of the dietary guidelines given for each food group
- demonstrates an adequate ability to apply appropriate knowledge and understanding to the question
- demonstrates an adequate ability to analyse the dietary guidelines given for each food group
- candidates must discuss at least three food groups to achieve at this level
- quality of written communication is adequate. The candidate makes a reasonable attempt to select and use an appropriate form and style of writing. Relevant material is organised with some clarity and coherence. There is some use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are sufficiently competent to make meaning evident.

Level 3 ([11]–[15])

Overall impression: competent

- competent knowledge and understanding of the dietary guidelines given for each food group
- demonstrates a competent ability to apply appropriate knowledge and understanding to the question
- demonstrates a competent ability to analyse the dietary guidelines given for each food group

- candidates must discuss all five groups to achieve at this level
- quality of written communication is competent. The candidate successfully selects and uses the most appropriate form and style of writing. Relevant material is organised with a high degree of clarity and coherence. There is extensive and accurate use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of a high standard and ensure that meaning is clear. [15]

(b) Explore the dietary advice that may be given to reduce the risk of type 2 diabetes. (AO1, AO2, AO3)

Answers may address three of the following:

- ensure a healthy, balanced diet is followed
- check sugar content on labels/avoid high sugar content foods
- follow a diet low in fat and saturated fat
- follow a diet high in fibre and complex carbohydrates; eat foods rich in soluble NSP, e.g. oats which help maintain blood sugar levels
- eat more vegetables
- safe alcohol intake; drink alcohol in moderation. Drinking too much alcohol is associated with an increased risk of Type 2 diabetes as alcohol interferes with blood sugar levels and can lead to weight gain. Current guidelines recommend not regularly drinking more than 14 units per week and that these units should be spread evenly over 3–4 days

All other valid points will be given credit

[0] is awarded for a response not worthy of credit.

Level 1 ([1]–[3])

Overall impression: basic

- limited knowledge of the dietary advice that may be given to reduce the risk of type 2 diabetes
- demonstrates a limited ability to apply appropriate knowledge and understanding to the question
- demonstrates a limited ability to ‘explore’ the dietary advice that may be given to reduce the risk of type 2 diabetes.

Level 2 ([4]–[6])

Overall impression: adequate

- adequate knowledge of the dietary advice that may be given to reduce the risk of type 2 diabetes
- demonstrates an adequate ability to apply appropriate knowledge and understanding to the question
- demonstrates an adequate ability to explore the dietary advice that may be given to reduce the risk of type 2 diabetes.

Level 3 ([7]–[9])

Overall impression: competent

- competent knowledge of the dietary advice that may be given to reduce the risk of type 2 diabetes
- demonstrates a competent ability to apply appropriate knowledge and understanding to the question
- demonstrates a competent ability to explore the dietary advice that may be given to reduce the risk of type 2 diabetes. [9]

- (c) Discuss four ways an individual may reduce the risk of osteoporosis. (AO1, AO2, AO3)

Answers may address four of the following:

- ensure a nutritious diet and adequate calcium intake. Calcium is important for preventing osteoporosis and bone disease as it is a major building-block of bone tissue – the skeleton houses 99 % of the body’s calcium stores. Calcium rich foods include green leafy vegetables, dried fruit, tofu and yoghurt. Adults need 70 mg of calcium a day which they should be able to get from the daily diet. Calcium needs change at different stages. Calcium requirements are high in teenage years with the rapid growth of the skeleton. With age, the body’s ability to absorb calcium declines, which is one of the reasons why older people also require higher amounts
- maintain an adequate supply of vitamin D. Vitamin D helps regulate the amount of calcium and phosphate in the body. These nutrients are needed to keep bones, teeth and muscles healthy. Vitamin D has been long known to improve bone health, by helping the body process calcium effectively – it is essential for bone and muscle health as it promotes calcium absorption from food. Bones need the added mineral to make them strong and supportive and vitamin D may play an important role in muscle function. Sunlight is the best natural source of vitamin D. All adults should consume 10 micrograms of vitamin D a day. Sources of vitamin D include oily fish, liver, egg yolks, fortified foods such as fat spreads and breakfast cereals and dietary supplements
- avoid heavy drinking. Alcohol should also be taken in moderation as it detracts from bone health and is associated with falls and fractures. Chronic heavy drinking, particularly during adolescence and the young adult years, can dramatically compromise bone quality and may increase osteoporosis risk. Furthermore, research indicates that the effects of heavy alcohol use on bone cannot be reversed, even if alcohol consumption is terminated
- caffeine and salt should not be taken in excessive amounts as both can increase calcium loss from the body
- fizzy soft drinks (e.g. cola drinks) should be taken in moderation as such drinks tend to ‘displace’ milk in the diets of children and teenagers
- participate in regular weight-bearing activity. These exercises include activities that make a person move against gravity while staying upright. High-impact, weight-bearing exercises help build bones and keep them strong. To reduce the rate of natural bone loss that occurs from the age of 35 onwards, aim to do muscle-strengthening activities at least 2 days a week. Examples of suitable activities for adults include brisk walking, moderate-resistance weightlifting, stair climbing, carrying or moving heavy loads like groceries, exercising with resistance bands, heavy gardening, such as digging and shovelling and cross-training machines
- avoid smoking and second-hand smoking as smoking reduces the blood supply to the bones and to many other body tissues. The nicotine in cigarettes slows production of bone-producing cells, called osteoblasts. Smoking decreases the body’s absorption of calcium, which is necessary for vital cellular functions and bone health

All other valid points will be given credit

Answers which focus on dietary advice only can achieve at all levels

[0] is awarded for a response not worthy of credit.

Level 1 ([1]–[4])

Overall impression: basic

- basic knowledge and understanding of four ways an individual may reduce the risk of osteoporosis
- demonstrates a limited ability to apply appropriate knowledge and understanding to the question
- demonstrates a limited ability to discuss four ways an individual may reduce the risk of osteoporosis
- quality of written communication is basic. The candidate makes only a limited attempt to select and use an appropriate form and style of writing. The organisation of material may lack clarity and coherence. There is little use of specialist vocabulary. Presentation, spelling, punctuation and grammar may be such that intended meaning is not clear.

Level 2 ([5]–[8])

Overall impression: adequate

- adequate knowledge and understanding of four ways an individual may reduce the risk of osteoporosis
- demonstrates an adequate ability to apply appropriate knowledge and understanding to the question
- demonstrates an adequate ability to discuss four ways an individual may reduce the risk of osteoporosis
- candidates must discuss at least two ways an individual may reduce the risk of osteoporosis to achieve at this level
- quality of written communication is adequate. The candidate makes a reasonable attempt to select and use an appropriate form and style of writing. Relevant material is organised with some clarity and coherence. There is some use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are sufficiently competent to make meaning evident.

Level 3 ([9]–[12])

Overall impression: competent

- competent knowledge and understanding of four ways an individual may reduce the risk of osteoporosis
- demonstrates a competent ability to apply appropriate knowledge and understanding to the question
- demonstrates a competent ability to discuss four ways an individual may reduce the risk of osteoporosis
- candidates must discuss at least three ways an individual may reduce the risk of osteoporosis to achieve at this level
- quality of written communication is competent. The candidate successfully selects and uses the most appropriate form and style of writing. Relevant material is organised with a high degree of clarity and coherence. There is extensive and accurate use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of a high standard and ensure that the meaning is clear.

Level 4 ([13]–[15])

Overall impression: highly competent

- highly competent knowledge and understanding of four ways an individual may reduce the risk of osteoporosis
- demonstrates a highly competent ability to apply appropriate knowledge and understanding to the question
- demonstrates a highly competent ability to discuss four ways an individual may reduce the risk of osteoporosis
- candidates must discuss four ways an individual may reduce the risk of osteoporosis to achieve at this level
- quality of written communication is highly competent. The candidate successfully selects and uses the most appropriate form and style of writing. Relevant material is extremely well organised with the highest degree of clarity and coherence. There is extensive and accurate use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of the highest standard and ensure that meaning is absolutely clear.

[15]

AVAILABLE
MARKS

39

Total

120

