Rewarding Learning

ADVANCED
General Certificate of Education
2014

Health and Social Care

Assessment Unit A2 15

assessing

Unit 15: Human Nutrition and Dietetics

[A6H71]

TUESDAY 10 JUNE, AFTERNOON

MARK SCHEME

General Marking Instructions

Introduction

Mark schemes are published to assist teachers and students in their preparation for examinations. Through the mark schemes teachers and students will be able to see what examiners are looking for in response to questions and exactly where the marks have been awarded. The publishing of the mark schemes may help to show that examiners are not concerned about finding out what a student does not know but rather with rewarding students for what they do know.

The Purpose of Mark Schemes

Examination papers are set and revised by teams of examiners and revisers appointed by the Council. The teams of examiners and revisers include experienced teachers who are familiar with the level and standards expected of students in schools and colleges.

The job of the examiners is to set the questions and the mark schemes; and the job of the revisers is to review the questions and mark schemes commenting on a large range of issues about which they must be satisfied before the question papers and mark schemes are finalised.

The questions and the mark schemes are developed in association with each other so that the issues of differentiation and positive achievement can be addressed right from the start. Mark schemes, therefore, are regarded as part of an integral process which begins with the setting of questions and ends with the marking of the examination.

The main purpose of the mark scheme is to provide a uniform basis for the marking process so that all the markers are following exactly the same instructions and making the same judgements in so far as this is possible. Before marking begins a standardising meeting is held where all the markers are briefed using the mark scheme and samples of the students' work in the form of scripts. Consideration is also given at this stage to any comments on the operational papers received from teachers and their organisations. During this meeting, and up to and including the end of the marking, there is provision for amendments to be made to the mark scheme. What is published represents this final form of the mark scheme.

It is important to recognise that in some cases there may well be other correct responses which are equally acceptable to those published: the mark scheme can only cover those responses which emerged in the examination. There may also be instances where certain judgements may have to be left to the experience of the examiner, for example, where there is no absolute correct response – all teachers will be familiar with making such judgements.

AVAILABLE MARKS

1 **(a)** Identify one deficiency disease of each of the following nutrients. (AO1)

Vitamin B1 (Thiamin)
Deficiency – beri-beri (wet or dry)
Vitamin C
Deficiency – Scurvy
Protein
Deficiency – Kwashiorkor
Deficiency – Protein energy malnutrition (PEM); marasmus
(3 × [1]) [3]

(b) Analyse the functions of the fat soluble vitamins A, D, E and K in the diet. (AO1, AO2, AO3, AO4)

Answers may address any of the following points:

Vitamin A

- essential for growth and metabolism of all body cells
- also required for formation of rhodopsin i.e. visual purple. This is a complex substance formed from retinol and protein. Rhodopsin is found in the retina and assists vision in reduced light. A deficiency of vitamin A in the diet results in night blindness
- vitamin A is also active in supporting the immune system
- essential for the maintenance of healthy skin particularly surface tissues
- essential for the maintenance of mucus membranes such as the corneas at the front of the eye and the lining of the respiratory and digestive tracts
- acts as an antioxidant in body tissues removing free radicals which are known to combat cancer in later life.

Vitamin D

- vitamin D may help to lower blood pressure and play a role in preventing colorectal cancer in later life
- essential to regulate the body's immune system which is important in adolescence as life style changes, social situations, new freedoms and an increasing sense of independence can compromise their nutritional status and make them more susceptible to infections
- required to assist in reaching peak bone mass and preventing rickets in children and osteomalacia in later life
- also necessary for the formation and maintenance of teeth
- is required for the absorption of calcium from the intestine and for the uptake of calcium and phosphorus by the bones and teeth.

Vitamin E

- plays a part in protecting ascorbic acid/vitamin C from being destroyed particularly in fruit and vegetables
- important role as an antioxidant. Substances known as free radical

which are produced as a result of normal chemical reactions in the body can damage the cell membranes. This can lead to the risk of inflammatory disease in later life. Vitamin E also protects polyunsaturated fatty acids (PUFA's) against free radical damage and this in turn can help prevent the risk of coronary heart disease
- helps maintain the health and quality of the skin
- essential in the health of the reproductive system
- essential in maintaining cell membranes.

Vitamin K
- helps produce the necessary proteins that enable your blood to clot properly
- produces proteins that are involved in the production of bone tissue.

All other valid responses will be given credit.

Level 1 ([1]–[3])
Overall impression: basic
- Displays limited knowledge of the functions of the fat soluble vitamins A, D, E and K in the diet
- May list functions or only discuss one
- There is limited analysis
- 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 ([4]–[6])
Overall impression: adequate
- Displays adequate knowledge of the functions of at least two of the fat soluble vitamins A, D, E and K in the diet
- There is adequate analysis of all four or a competent analysis of two may be awarded up to 6 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 ([7]–[9])
Overall impression: competent
- Displays very competent knowledge of the functions of at least three or more of the fat soluble vitamins A, D, E and K
- All four must be addressed to achieve at this level and there is competent analysis of all four at the top of this level
- Quality of written communication is competent. The candidate successfully selects and uses the most appropriate form and style

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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.

[0] is awarded for a response not worthy of credit [9]

(c) Explain the following terms. (AO1, AO2)

Answers may address the following:

Estimated Average Requirements (EAR)

- this is an estimate of the average requirement for energy or a nutrient – approximately 50% of a group will require less and 50% will require more. The EAR is not the recommended intake for an individual but is the estimate of the average need for a large group of people.

Lower Reference Nutrient Intake (LRNI)

- the amount of a nutrient that is enough for only the small number of people who have low requirements approx 2.5% of the population.

Reference Nutrient Intake (RNI)

- this is the amount of a nutrient sufficient for nearly everyone approx 97.5% of the population even those with higher needs. This level is considered to be higher than most people need. By definition many within this group will need less.

[1] for key phrase/s [2]for explanation.
(3 × [2]) [6]

(d) Explain why physical activity levels (PALs) affect an individual's need for energy. (AO1, AO2, AO3)

Answers may include the following:

- the higher the level of physical activity, the greater the energy requirements of an individual
- the lower the level of physical activity, the less the energy requirements of an individual.

[1] for key phrase/s [2]for explanation.
(1 × [2]) [2] 20

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2 (a) Everyone wants to be sure that they are eating a healthy diet. It has been demonstrated that vegetarian and vegan diets can meet the nutritional needs of people of all ages. Evaluate this statement. (AO1, AO2, AO3, AO4)

Answers may address the following points:

Protein

- vegetarians eat dairy products which are high biological value proteins containing the essential amino acids which are essential for growth
- vegans eat no animal products so their dietary sources of protein are low biological value, missing some of the essential amino acids
- therefore it is important for vegans to eat a wide variety of pulses, cereals, seeds and nuts to meet the need for growth, particularly important during periods of rapid growth such as childhood and adolescence.

Calcium

- calcium intake may be a problem in vegan diets as they do not consume milk or other dairy products – this would be a particular problem in childhood when calcium is required for the development of teeth and bones.

Vitamin B12

- vegan diets may lack this vitamin as it is only found in foods of animal origin, though supplements may be taken
- this may lead to pernicious anaemia, most common in middle aged or elderly vegans.

Iron

- both vegans and vegetarians are susceptible to lower iron levels than non-vegetarians
- non-haem iron found in plant sources is poorly absorbed by the body, so vegetarians and vegans need to eat plenty of iron rich vegetables in conjunction with vitamin C to aid its absorption. This is particularly important for menstruating females.

Vitamins A, C and E

- both vegans and vegetarians tend to eat lots of fruit and vegetables which contain these vitamins which have anti-oxidant properties and so reduce the risk of some cancers including mouth, throat (larynx and pharynx), stomach and lung cancers.

Vitamin D

- this is not naturally present in vegetable foods, so both vegans and vegetarians will need to eat fortified foods such as cereals or margarine
- vegetarians can obtain vitamin D by drinking milk, particularly in the summer months when levels are higher.

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NSP

- vegetarians also consume foods high in NSP which supplies the body with a rich source of soluble and insoluble fibre. This is known to play a part in reducing the risk of bowel cancer as it adds bulk to waste therefore the body excretes waste quicker reducing the risk of a build up of toxins that may cause intestinal disease such as cancer
- for children, however, high levels of NSP may reduce the absorption of vital nutrients.

Fat

- vegetarians consume foods with less saturated fatty acids and therefore cholesterol levels tend to be lower in the body. Trans fatty acids are produced naturally in the rumen of cows and sheep (ruminants) and so are present naturally in milk, beef and lamb. They have been shown to have similar effects in the body to saturates in that they raise blood LDL cholesterol and also influence other heart disease risk factors. As vegetarians do not eat any form of meat their risk of CHD may be reduced
- the foods vegetarians tend to consume are high in monosaturates and polyunsaturates which are associated with reducing cholesterol levels. These establish the long chain omega-3 fatty acids present in oily fish which help protect the heart
- vegetarians consume more quorn, soya and cereal products that are also low fat options. These foods are also lower in salt which is a known risk factor of CHD as it can cause hyper tension. Eating wholegrain and high-fibre products that contain soluble fibre is known to help to reduce blood cholesterol levels.

Low GI foods

- vegetarians eat more fruit and vegetables everyday, and these have the added benefit of releasing energy slowly which is thought to be good for your heart.

Level 1 ([1]–[4])

Overall impression: basic

- Displays limited understanding of how vegetarian and/or vegan diets can meet nutritional needs and/or of how they can be limited
- Points may be listed
- There may be little or no evidence of analytical writing
- There may be no discussion of nutrients
- 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.

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Level 2 ([5]–[8])
Overall impression: adequate knowledge and understanding

- Displays adequate knowledge and understanding of how vegetarian and/or vegan diets can meet nutritional needs and/or of how they can be limited
- There is evidence of analytical writing
- Answers which focus on only vegetarian or only vegan diets cannot achieve beyond this level
- Answers which focus on only positive or only negative aspects of these diets cannot achieve beyond 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 knowledge and understanding

- Displays good understanding of how vegetarian and vegan diets can meet nutritional needs and of how they can be limited
- There is competent analysis – there may be some variation in the quality of analysis between vegetarian and vegan diets or between how they may or may not meet nutritional needs
- 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 knowledge and understanding

- Displays excellent understanding of how both vegetarian and vegan diets can meet nutritional needs and of how they can be limited
- There is evidence of in-depth analysis
- At this level there must be reference to different age groups
- Quality of written communication is excellent. 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.

[0] is awarded for a response not worthy of credit [15]

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(b) Explain three ways the food group 'bread, rice, potatoes and other starchy foods' meets the nutritional needs of adults. (AO1, AO2)

Answers may address three of the following:

- this food group slows release of energy
- a source of fibre reducing risk of constipation and bowel disorders
- this food group supplies the body with a good source of energy
- source of NSP which slows down the release of glucose to the bloodstream and therefore helps to control blood sugar levels. This is important as many adults have a higher risk of developing Type 2 diabetes. Without soluble fibre blood sugar and insulin levels tend to rise rapidly after eating
- calcium needs will be met by this food group as bread is fortified with calcium which reduces the risk of bone deficiencies
- provides magnesium which is essential for bone mineralization
- provides B group vitamins which are essential for the release of energy from food
- bread is fortified with iron as are some breakfast cereals. The iron content in these foods will help form part of the red blood cell protein haemoglobin which is necessary to carry oxygen around the body
- a source of soluble fibre reducing cholesterol and risk of CHD
- this food group leaves a person fuller longer and less likely to snack on sugary foods – helps maintain weight

[1] for key phrase/s [2]for explanation.
(3 × [2]) [6]

(c) Discuss how staff in a day nursery may help prevent tooth decay in young children. (AO1, AO2, AO3)

Answers may address the following points:

- staff should read labels to check sugar content
- avoid giving children frequent sugary snack food and sweets high in non milk extrinsic sugars. Foods such as dried fruit or toffees may stick to the teeth and so reduce the pH in the mouth for a longer time than would occur with less sticky food
- refrain from adding sugar or other substances such as honey/syrup to flavour drinks such as milk
- provide snacks such as fruit as these foods contain naturally occurring sugars and take care not to allow the children to drink a lot of pure fruit drinks as this is a concentrated source of sugar and can cause tooth decay
- staff could provide raw vegetables such as carrot sticks as snacks as they encourage healthy pH in the mouth
- staff should ensure they do not leave children to suck on feeding bottles or teats as if left in contact with the teeth for a prolonged period of time may cause dental erosion
- staff can encourage children from a very young age to take care of their teeth by helping them brush their teeth and making it a fun

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and enjoyable activity/putting up posters; star charts; tooth brushes
- encourage children to drink milk/water.

All other valid responses will be given credit.

Level 1 ([1]–[2])
Overall impression: basic
- Displays limited knowledge of how staff can prevent tooth decay in children. May only list points rather than form a discussion.

Level 2 ([3]–[4])
Overall impression: adequate
- Displays adequate knowledge of how staff can prevent tooth decay in children. Candidates may not fully develop points.

Level 3 ([5]–[6])
Overall impression: competent
- Displays a very good to excellent knowledge of how staff can prevent tooth decay in children.

[0] is awarded for a response not worthy of credit. [6]

(d) Discuss the advice a dietician may give to individuals suffering from the following. (AO1, AO2, AO3)

Answers may address the following points:

Lactose intolerance
- avoid dairy products from cow's milk
- use lactose free products, e.g. lacolite
- check food labels
- may be able to eat yoghurt or cheese
- use soya/almond milk as an alternative
- advice on alternative sources of calcium.

Coeliac disease
- follow a strict gluten-free diet i.e. products made from wheat, barley, oats and rye
- consume foods that are naturally gluten-free, e.g. fresh meat, fish, cheese, eggs, milk, fruit and vegetables
- buy gluten free products
- check food labels on packaging.

[1] for key phrase/s [2] for adequate discussion [3] for detailed discussion
(2 × [3]) [6]

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3 (a) Identify two pieces of legislation which apply to food storage, preparation and handling. (AO1)

Answers may include two of the following:

- Food Standards Act
- Food Safety Act 1990/Northern Ireland Order 1991
- The Food Safety (General Food Hygiene) Regulations 1995, 2005, 2006. (Any of the three dates may be accepted).

Any other UK and NI relevant legislation may be considered.
(2 × [1]) [2]

(b) Discuss the importance of the following in the preparation of food. (AO1, AO2)

Cross contamination

- it is essential to keep raw and cooked foods separate in order to prevent bacteria from raw food passing to the cooked food. Raw food has a much higher bacterial load than cooked food and is more likely to cause food poisoning. Food handlers should therefore wear disposable plastic gloves. Avoid over handling of food during preparation
- separate equipment when preparing raw and cooked food should be used i.e. knives, colour coded chopping boards should be used for raw meat and raw vegetables. Meat slicers and mincers should not be used for both raw and cooked foods. This will prevent cross contamination
- there should be separate preparation areas for the two types of food, i.e. dirty and clean zones.

Temperature control

- bacteria grow rapidly at 20-50 degrees centigrade (Binary fission). To prevent bacterial growth food should be kept below 5 degrees centigrade and cooked to above 63 degrees centigrade (danger zone) it is essential to control the temperature of food during preparation. This will prevent the multiplication of pathogenic bacteria
- most bacteria are killed at high temperatures therefore if food is thoroughly heated to at least 72 degrees centigrade at its centre for a sufficient time bacteria will be destroyed. Fridge temperature should operate at 5 degrees centigrade and below and freezer temperature should be -18 degrees centigrade to control growth of bacteria.

[1] for key phrase/s [2] for adequate discussion [3] for detailed discussion
(2 × [3]) [6]

(c) Complete the table below to demonstrate your knowledge of food poisoning. (AO1, AO2, AO3)

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Answers may address three of the following:

Salmonella
Symptoms – abdominal pain, diarrhoea, nausea, vomiting, fever.
Sources – raw meat, poultry, eggs.

Campylobacter
Symptoms – fever, diarrhoea, vomiting, nausea.
Sources – raw/undercooked poultry and meat, shellfish, pets including cats and dogs.

Escherichia Coli (E coli)
Symptoms – bloody diarrhoea, vomiting, kidney disease, nausea, abdominal pain, fever.
Sources – raw meat, faeces.

Staphylococcus aureus
Symptoms – nausea, vomiting, diarrhoea, fever, severe abdominal cramps.
Sources food handlers i.e. nose throat and infected wounds.
[1] for each food poisoning bacteria identified
[1] for each symptom identified
[1] for each source identified
(9 × [1]) [9]

(d) Discuss how each of the following stages of the Hazard Analysis Critical Control Point (HACCP) system aims to ensure the safe, hygienic production of cooked chicken. (AO1, AO2, AO3)

Identifying the critical control points (CCPs)

- this step in the process ensures that points throughout the cooking of chicken are identified so that potential hazards can be reduced or removed
- defrosting is a critical point and potential hazard that has to be rigidly controlled. If this hazard is not controlled and defrosting is carried out incorrectly Salmonella will be allowed to multiply and subsequently render the chicken harmful to the individual. Drips when defrosting can cause cross contamination
- storage is another critical control point if the temperature of freezing (-18 degrees) chilling (below 5 degrees) is not correct, bacteria will multiply. Food can also spoil by growing yeasts and moulds. If these CCPs are not identified and reduced/removed then they are hazardous
- slicing, chopping, mincing equipment if dirty or touched by food handlers not wearing gloves, can cause contamination and bacterial growth on the chicken. If not identified may cause food poisoning.

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Specifying control procedures

- once the CCPs are identified the control procedures can then be put in place. In the case of defrosting chicken, if safe food handling routines are carried out at the time of defrosting then the hazard will be either controlled to a safe level or removed. Examples of safe food handling routines would be knowledge of defrosting procedures i.e. defrost for at least 15 hours per kg in a refrigerator at 1-5 degrees
- ensuring all staff have a general knowledge about personal hygiene
- microbiological testing.

Monitoring control procedures

- in the case of defrosting chicken the monitoring will be of the temperature of the fridge where defrosting takes place. The temperature of the chicken will also be monitored to ensure it is not in the danger zone where bacteria may multiply. The freezer temperature where the chicken is stored will also be monitored and recorded
- visual checks of fridge during defrosting will be carried out and monitored to ensure the temperature is not too cold as ice may form
- drip trays will be visually monitored to ensure they do not overflow
- records will be maintained to inform all staff when the chicken was last inspected. Times of storage, defrosting and cooking will also be recorded
- temperature probes will be used to record cooking temperatures for both chicken and equipment. etc.
- use by dates will be closely monitored and recorded to ensure freshness and quality of food is maintained
- visual checks from the staff, management and external agencies recording cleanliness and hygiene of equipment food preparation area and hygiene of handlers and their procedures. These will be monitored on a daily basis by management and on a set regular basis by external agencies
- holding time.

All other valid responses will be given credit.
[1] for key phrase/s [2] for adequate discussion [3] for detailed discussion.
(3 × [3]) [9]

(e) Analyse how physiological, economic and cultural factors may influence the choice of food offered to residents.
(AO1, AO2, AO3, AO4)

Answers may address any of the following points:

Physiological

- older people can have poor dental health or have dentures this will mean that the food they eat will have to be of a softer

consistency therefore this will influence choice
- older people may also suffer from tooth decay as a result of taking medication; for example, drugs with prolonged oral clearance, high-energy syrup food supplements and other forms of between-meal snacks. Therefore the staff will have to consider the dental health of its residents when choosing food
- if some of the residents are suffering from Coronary Heart Disease or related conditions such as CVD, the staff will have to choose foods incorporating non-hydrogenated unsaturated fatty acids (monounsaturates and polyunsaturates) as the main form of fat, avoiding trans fatty acids. Also choosing wholegrains as the main form of carbohydrate, a variety of fruits and vegetables and adequate amounts of long chain omega-3 fatty acids predominantly from oily fish may also prevent cardio related diseases
- if some of the residents have undergone surgery then high protein foods will be chosen for growth and repair of body tissue
- residents with diabetes and food intolerances, e.g. lactose intolerant, coeliac disease and nut allergy will influence the choice of food
- increasingly older people are suffering from malnutrition and are under weight. This will influence the residential home to choose high nutrient and energy dense foods.

Economic
- staff are likely to buy cheaper brands
- they are likely to use cheaper cuts of meat
- they will tend to buy foods in season as they tend to be less expensive
- may use more frozen, convenience foods due to their price and to reduce preparation costs, e.g. frozen rather than fresh vegetables
- may shop in discount stores and use low cost suppliers
- may use more starchy foods which tend to be inexpensive
- may use meat substitutes such as Quorn to bulk out meals
- staff may not buy organic foods as these are more expensive
- due to budget restraints more expensive/high brand foods may not be purchased.

Cultural
- the differing religions and cultures will influence the choice of food for example:
  - Muslim residents will only eat food that is Halal.
  - All food for Jews must be Kosher and they cannot eat meat from pigs, shellfish, birds of prey.
  - Hindu residents will not eat meat from a cow.
- many cultures are vegetarian therefore soya based foods such as Quorn may be purchased as will cereal based food along with fruit and vegetables
- different festivals for differing cultures will influence the food choice of the residential home, e.g. Jewish New Year, Ramadan, Christmas time for Christians and Hanukkah for Jews

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- many older people will prefer the diet they have grown up with, e.g. may be resistant to trying new foods like pasta, preferring meat, vegetables and potatoes
- some Roman Catholics practice abstinence from meat products on a Friday.

All other valid responses will be given credit.

Level 1 ([1]–[3])
Overall impression: limited

- Displays limited knowledge of how the factors specified may influence the choice of food
- Points relating to factors may be listed. One or two factors may be omitted
- There is limited analysis
- 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 ([4]–[6])
Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of how the specified factors may influence the choice of food
- At least two factors must be addressed; quality of analysis may vary between the factors where one is more adequately addressed than the other
- There is adequate analysis
- 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 ([7]–[9])
Overall impression: competent knowledge and understanding

- Displays very good to excellent knowledge of how the factors may influence the choice of food
- There is competent analysis – there may be some variation in the quality of analysis across factors where three factors have been discussed
- 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.

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Level 4 ([10]–[12])
Overall impression: highly competent knowledge and understanding
- Displays very good to excellent knowledge of how all three factors may influence the choice of food
- There is highly competent analysis
- Quality of written communication is excellent. 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.

[0] is awarded for a response not worthy of credit. [12]

(f) Discuss older people's need for water and how it may be met by the staff at Pinehaven. (AO1, AO2, AO3)

Need for water
- reduces risk of U.T.I.
- older people need water to transport nutrients around their bodies
- water helps to prevent constipation which is a common problem in older people whose digestive muscles are weaker
- water helps to regulate body temperature in older people who may be more prone to infections
- water lubricates joints in older people who often experience stiffness
- water prevents dehydration which can cause confusion in older people
- water helps to keep mucus membranes and eyes moist, important for older people in the centrally heated environment of Pinehaven.

How it may be met by staff
- ensuring all residents have fresh drinking water in quantity to allow consumption of 6-8 glasses per day, e.g jug of water in room
- providing water or fruit juice with meals
- encouraging consumption of water rich foods, e.g. fruit, jellies, soup, vegetables
- encouraging frequent drinking of liquids
- assisting those who need help to take liquids, e.g. providing straw, feeding
- providing thickened drinks for older people who have problems swallowing.

All other valid responses will be given credit.

Level 1 ([1]–[3])
Overall impression: limited
- Displays limited knowledge and understanding of older people's need for water and how it may be met by the staff at Pinehaven
- Points may be listed or answers may address only one part of the question
- There is limited analysis
- Quality of written communication is basic. The candidate makes

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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 ([4]–[6]) Overall impression: adequate • Displays adequate knowledge and understanding of older people's need for water and how it may be met by the staff at Pinehaven • Quality of analysis may vary between discussion of the need for water and how it may be met by staff • Candidates who discuss only one of these aspects remain in this band • There is adequate analysis and some reference to older people • 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 ([7]–[9]) Overall impression: competent • Displays very good to excellent knowledge and understanding of older people's need for water and how it may be met by the staff at Pinehaven • There is competent analysis of both the need for water and how it may be met by staff • 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.	
[0] is awarded for a response not worthy of credit. [9]	47
Total	**100**