Rewarding Learning

ADVANCED
General Certificate of Education
2018

Health and Social Care

Assessment Unit A2 15

assessing

Unit 15: Human Nutrition and Dietetics

[A6H71]

MONDAY 18 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)** Explain the function of each of the following vitamins in the diet. (AO1, AO2)

Answers may address the following:
Vitamin E
- plays a part in protecting ascorbic acid/vitamin C from being destroyed particularly in fruit and vegetables
- protects polyunsaturated fatty acids (PUFAs) against free radical damage and this in turn can help prevent the risk of coronary heart disease
- essential in the health of the reproductive system
- essential in maintaining cell membranes
- acts as an antioxidant, which protects cell membranes. This helps to maintain healthy skin, eyes and strengthens the immune system
- promotes the growth of B-cells that form antibodies known to kill bacteria

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

All other valid responses will be given credit.
[1] for the use of key words/phrase(s), [2] for full explanation.
(2 × [2]) [4]

(b) Examine the functions and sources of the nutrients calcium and vitamin D. (AO1, AO2, AO3)

Answers may address the following:
Functions of calcium:
- helps to build strong bones and teeth
- regulates muscle contractions, including heartbeat
- ensures that blood clots normally

Sources of calcium include:
- milk, cheese and other dairy foods
- green leafy vegetables – such as broccoli, cabbage and okra, but not spinach
- soya beans
- tofu
- soya drinks with added calcium
- nuts and seeds
- bread and anything made with fortified flour
- fish where you eat the bones – such as sardines and pilchards

Function of vitamin D:
- along with calcium helps build bone and keep bones strong and healthy
- helps to regulate the amount of calcium and phosphate in the body
- blocks the release of parathyroid hormone
- too little vitamin D results in soft bones in children (rickets) and fragile, misshapen bones in adults (osteomalacia)

Sources:
- sunlight
- oily fish – such as salmon, sardines, herring and mackerel
- red meat

AVAILABLE MARKS

- liver
- egg yolks
- fortified foods such as most fat spreads and some breakfast cereals
- dietary supplements

All other valid points will be given credit.

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

Level 1 ([1]–[2])
Overall impression: basic
- Displays limited knowledge of the functions of and sources of the nutrients calcium and vitamin D.

Level 2 ([3]–[4])
Overall impression: adequate
- Displays adequate knowledge of the functions of and sources of the nutrients calcium and vitamin D.

Level 3 ([5]–[6])
Overall impression: competent
- Displays very good to excellent knowledge of the functions of and sources of the nutrients calcium and vitamin D. [6]

(c) Discuss how guideline daily amounts (GDAs) encourage healthier eating.

Answers may address the following:
- GDAs are used by companies to provide information on the nutritional contents of their products
- They help to show what contribution a particular product or portion size can make to daily intakes of nutrients
- This helps people to make healthy choices when shopping, e.g. to choose products that are low in fat, sugar or salt

[1] for the use of key words/phrase(s), [2] adequate discussion, [3] full discussion.
(1 × [3]) [3]

(d) Complete the table below to demonstrate your knowledge of the role of iron in the diet. (AO1, AO2, AO3)

Answers may address the following:
Function
- iron helps to make red blood cells haemoglobin, which carry oxygen around the body

(1 × [2]) [2]

Rich sources
Answers may include four of the following:
- liver
- meat
- beans
- nuts
- dried fruit – such as dried apricots
- wholegrains – such as brown rice
- fortified breakfast cereals

AVAILABLE MARKS

- soya bean flour
- most dark-green leafy vegetables – such as watercress and curly kale

(4 × [1]) [4]

One effect of excess iron

Answers may include one of the following:

- nausea
- constipation
- vomiting
- stomach pain

(1 × [1]) [1]

Deficiency disease

- anaemia

(1 × [1]) [1]

(e) Discuss three risks of consuming excess carbohydrates to the health of individuals. (AO1, AO2, AO3)

Answers may address three of the following points:

- weight gain as excess carbohydrate is converted to fat and stored in the adipose tissue. Excess carbohydrates can impact on weight control if they are not burned off as energy
- decreased intake of essential nutrients as eating an excess of carbohydrate may result in children feeling "full" and therefore not consuming enough essential nutrients
- poor oral health – sugars are the main dietary component associated with dental caries and gum disease. If a person eats too much sugar, this will have a negative impact on oral health as the greater the time during which the tooth is exposed to the low pH (acid) levels at which demineralisation occurs; there is a close correlation between the rate of dental caries and sugar consumption. Studies in which PH has been measured following consumption of sugar-containing food and drinks show a rapid fall in PH which follows sugar intake. This results in dissolution of the tooth enamel
- increased risk of high blood pressure, heart disease, stroke and kidney disease
- increased risk of Type 2 diabetes which develops more commonly in older people and is linked with being overweight and an excessive intake of any source of energy. This leads to health complications, e.g. poor eyesight, circulation problems and reduced life expectancy
- poor absorption of essential vitamins and minerals due to excess consumption of NSP
- Crohn's disease
- hyperactivity

[1] for key words/phrase(s), [2] adequate discussion, [3] full discussion.

(3 × [3]) [9]

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AVAILABLE MARKS

2 (a) Discuss how cultural factors may influence the choice of food offered to residents. (AO1, AO2, AO3)

Answers may address the following:

- cultural influences lead to the difference in the habitual consumption of certain foods and in traditions of preparation, and in certain cases can lead to restrictions such as exclusion of meat and milk from the diet, all of which must be considered in the menus offered
- the differing religions and cultures will influence the choice of food offered to residents for example:
  - Muslim residents will only eat food that is Halal. In Arabic it simply means permissible or allowed. To make meat halal or permissible, an animal or poultry has to be slaughtered in a ritual way. Staff should offer Halal food choices to Muslim residents
  - all food choices for Jewish residents must be Kosher which refers to a set of intricate biblical laws that detail the types of food that a Jewish person may eat and the ways in which it may be prepared and they cannot eat meat from pigs, shellfish, birds of prey. Staff should ensure Kosher choices for Jewish residents
  - Hindus will eat dairy products, fish and shellfish or even poultry. Pork is even consumed in some regions. The majority of Hindus don't eat beef – cows are seen as "The Mother". Food choices for Hindu residents should reflect these observations
- many cultures are vegetarian therefore soya based foods such as Quorn may be offered as a choice to residents 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. Staff should offer food choices to reflect these different festivals
- some Roman Catholics practice abstinence from meat products on a Friday for example they will be offered alternative choices to meat, e.g. fish

All other valid points will be given credit.

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

Level 1 ([1]–[2])
Overall impression: basic

- Displays limited knowledge of the how cultural factors may influence the choice of food offered to residents.

Level 2 ([3]–[4])
Overall impression: adequate

- Displays adequate knowledge of the how cultural factors may influence the choice of food offered to residents.

Level 3 ([5]–[6])
Overall impression: competent

- Displays very good to excellent knowledge of the how cultural factors may influence the choice of food offered to residents. [6]

(b) Discuss three ways current dietary recommendations could be met by the catering staff when planning meals for diabetics. (AO1, AO2, AO3)

AVAILABLE MARKS

Answers may include discussion of three of the following:

- staff should plan meals to include foods rich in soluble NSP, e.g. oats which help maintain blood sugar levels and follow a diet high in fibre and complex carbohydrates. Potatoes, rice, pasta, bread, chapattis, naan and plantain all contain carbohydrate, which is broken down into glucose and used by the cells as fuel. Better options of starchy foods – such as wholegrain bread, wholewheat pasta and basmati, brown or wild rice – contain more fibre, which helps to keep the digestive system working well. They are generally more slowly absorbed (that is, they have a lower glycaemic index, or GI), keeping a person feeling fuller for longer. As all carbohydrates affect blood glucose levels, staff should be conscious of the amounts residents eat
- staff should plan meals to help ensure that a balanced diet is followed, residents should eat regular meals/eat at regular intervals
- staff should plan meals which are low in saturated fat. Fat is high in calories, so staff should try to reduce the amount of oil or butter used in cooking. Catering staff should use unsaturated oils, such as sunflower, rapeseed or olive oil, as these types are better for the heart. Diabetics are up to five times more likely to develop heart disease or have a stroke. Prolonged, poorly controlled blood glucose levels increase the likelihood of atherosclerosis, where the blood vessels become clogged up and narrowed by fatty substances. This may result in poor blood supply to the heart, causing angina. It also increases the chance that a blood vessel in the heart or brain will become blocked, leading to a heart attack or stroke
- staff should plan meals to include more vegetables which are naturally low in fat and calories and full of vitamins, minerals and fibre. Fruit and vegetables add flavour and variety to every meal. They may also help protect against stroke, heart disease, high blood pressure and some cancers. Fresh, frozen, dried and canned fruit in juice and canned vegetables in water all count. Staff should aim to provide at least five portions of fruit and vegetables a day, so that the residents get the range of vitamins, minerals and fibre they need to eat well
- staff should avoid offering sugary drinks and fruit juices as a way of quenching thirst. They can raise blood glucose levels up very high and very quickly, and can make residents gain weight in the long term. Instead residents should drink water, sugar free and diet soft drinks. Tea and coffee can be included too. Many breakfast cereals are high in sugar. Staff should switch to lower-sugar cereals or those with no added sugar, such as plain porridge or plain whole wheat cereal biscuits
- too much salt is associated with high blood pressure, which increases the risk of diabetes complications. Adults should have no more than 1 teaspoon (6g) of salt per day. Most of the salt we eat comes from processed foods so catering staff should cut back on these and try to cook fresh foods , flavouring residents' food with herbs and spices instead. It is always a good idea for staff to read labels and choose lower salt options whenever possible. Salt should not be added to food at the dining table

All other valid responses will be given credit.

AVAILABLE MARKS

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

Level 1 ([1]–[3])
Overall impression: basic
- Displays limited knowledge of three ways current dietary recommendations could be met by the catering staff when planning meals for diabetics
- May list ways or limited discussion
- Answers which focus on only one way cannot score beyond this level
- Quality of written communication is basic. The candidate makes a limited selection and use of 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 three ways current dietary recommendations could be met by the catering staff when planning meals for diabetics.
- At least two ways addressed to score at this level
- Adequate discussion of three ways or quality of discussion may vary
- Candidates who only address two ways cannot achieve beyond this level
- Quality of written communication is good. The candidate makes a reasonable selection and use of an appropriate form and style of writing. Relevant material is organised with some clarity and coherence. There is some use of specialist vocabulary. Presentation, spelling, punctuation and grammar are sufficiently competent to make meaning evident.

Level 3 ([7]–[9])
Overall impression: competent
- Displays a good knowledge of three ways current dietary recommendations could be met by the catering staff when planning meals for diabetics.
- Competent discussion of three ways
- Quality of written communication is competent. The candidate successfully selects and uses an appropriate form and style of writing. Relevant material is organised with a high degree of clarity and coherence. There is widespread use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of a high standard to make meaning clear. [9]

(c) Analyse the importance of adequate water intake for older people and how the need for water may be met by the staff at Chestnut Residential Home. (AO1, AO2, AO3, AO4)

Answers may address the following:
Importance of water for older people:
- 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

AVAILABLE MARKS

- 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 the home

How this need 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.

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

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

- Displays limited knowledge of older people's need for water and how this need may be met by the staff at Chestnut Residential Home
- 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 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 older people's need for water and how this need may be met by the staff at Chestnut Residential Home
- Quality of analysis may vary between discussion of the need for water and how this need 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.

AVAILABLE MARKS

Level 3 ([7]–[9])
Overall impression: competent

- Displays good knowledge of older people's need for water and how this need may be met by the staff at Chestnut Residential Home
- 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.

Level 4 ([10]–[12])
Overall impression: highly competent

- Displays very good to excellent knowledge of older people's need for water and how this need may be met by the staff at Chestnut Residential Home
- Candidates must demonstrate highly competent analysis of older people's need for water and how it may be met by staff to achieve at the top of this level
- Quality of written communication is excellent. The candidate successfully selects and uses an appropriate form and style of writing. Relevant material is extremely well organised with the highest degree of clarity and coherence. There is extensive use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of the highest standard and ensure that meaning is absolutely clear. [12]

(d) Complete the table below by naming three food poisoning bacteria and a different source for each. (AO1)

Answers may address **three** of the following bacteria and sources:

- **Salmonella**
- Sources – raw meat, poultry, eggs

- **Campylobacter**
- Sources – raw/undercooked poultry and meat, shellfish, pets including cats and dogs

- **Escherichia Coli (E coli)**
- Sources – raw meat, faeces

- **Staphylococcus aureus**
- Source: food handlers, i.e. nose, throat and infected wounds

(6 × [1]) [6] 33

AVAILABLE MARKS

3 **(a)** List the four other food groups. (AO1)

Answers may include four of the following groups from either the eatwell plate or the Eatwell Guide:
eatwell plate

- bread, rice, pasta, potatoes and other starchy foods
- milk and dairy foods
- fruit and vegetables
- food and drinks that are high in fat or sugar

Eatwell Guide

- potatoes, bread, rice, pasta and other starchy carbohydrates
- fruit and vegetables
- dairy and alternatives
- oils and spreads
- drink 6–8 cups/glasses of fluid each day

(4 × [1]) [4]

(b) Discuss the importance of meat, fish and alternatives in the diet. (AO1, AO2, AO3, AO4)

Answers may address the following:

- in addition to protein, these foods provide a good source of a variety of other nutrients including: energy, omega 3 fatty acids, iron, calcium, chromium, copper, fluoride, manganese, molybdenum, phosphorous, selenium, sodium, vitamins A, B, D and E and zinc, but the nutritional content varies greatly between foods. Therefore including a good variety of these foods in the diet is important
- the choice, cut and amount of meat, fish and alternatives is also very important. As well as the 'good' omega 3 fats, these foods can also be very high in 'bad' unsaturated fats and calories which can be damaging to the heart as well as the waist line. Red meat, e.g. beef, pork, lamb provides us with iron, and meat is also one of the main sources of vitamin B12 but is often high in saturated fat and/or is processed by adding fat, sugar or salt. High levels have been linked to bowel and stomach cancer and high intakes of saturated fats can lead to heart disease. Therefore the Department of Health recommend that we eat no more than 70g (cooked weight) red meat per day which is equivalent to about 2 thin slices of meat
- pulses include beans, lentils and peas. Pulses are a great source of protein. This means they can be particularly important for people who do not get protein by eating meat, fish or dairy products. However, pulses can also be a healthy choice for meat-eaters. They can add pulses to soups, casseroles and meat sauces to add extra texture and flavour. This means they can use less meat, which makes the dish lower in fat and cheaper. Pulses are a good source of iron. Pulses are also a starchy food and add fibre to a meal. Eating a diet high in fibre is associated with a reduced risk of heart disease and type 2 diabetes. They are a cheap, low-fat source of protein, fibre, vitamins and minerals, and they count towards the recommended five daily portions of fruit and vegetables
- a healthy diet should include at least two portions of fish a week, including one of oily fish. That's because fish and shellfish are good sources of many vitamins and minerals. Oily fish – such as salmon and fresh tuna – is also particularly high in vitamin D and in long-chain omega-3 fatty acids, which may help to keep the heart healthy

AVAILABLE MARKS

- eggs are a good choice as part of a healthy, balanced diet. As well as being a source of protein, they also contain vitamins and minerals. They can be part of a healthy meal that's quick and easy to make
  - eggs are a good source of vitamin D which helps to regulate the amount of calcium and phosphate in the body
  - vitamin A is also known as retinol and has several important functions helping your immune system to work as it should against infections, helping vision in dim light, keeping skin and the linings of some parts of the body, such as the nose, healthy
  - riboflavin is also known as vitamin B2 it is needed to keep skin, eyes and the nervous system healthy and helps the body release energy from the food we eat
  - vitamin B12 is involved in making red blood cells and keeping the nervous system healthy, releasing energy from the food we eat and processing folic acid
  - folate is one of the B-group vitamins and it works together with vitamin B12 to form healthy red blood cells and helps to reduce the risk of central nervous system defects, such as spina bifida, in unborn babies
  - eggs also contain iodine which helps to make the thyroid hormones. These hormones help to keep cells and the metabolic rate healthy

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
- Displays limited knowledge of the importance of meat, fish and alternatives in the diet
- Limited discussion/may list several examples
- 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 importance of meat, fish and alternatives in the diet
- Adequate discussion – there may be some variation in the quality of discussion between meat, fish and alternatives
- 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 a very good to excellent knowledge and understanding of the importance of meat, fish and alternatives in the diet
- Competent discussion

AVAILABLE MARKS

- 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. [9]

(c) The eatwell plate does not apply to children under the age of two. Analyse the specific nutritional needs and current dietary recommendations for infants. (AO1, AO2, AO3, AO4)

Answers may address some of the following:
Nutritional needs:
Carbohydrate

- carbohydrate aids in maintaining the overall health condition of the infants. It fuels their metabolism, continues the functioning of their nervous system and supports their growth. Carbohydrate is the primary source that fuels up energy for children to play, learn and run; deficiency of carbohydrates may stunt the growth of children

Fats and fatty acids

- quality fats consumed during infancy provide the required energy for the infant's brain, heart and liver. Fatty acids facilitate infants in absorbing the essential nutrients and building both cells and immunity. Regular breastfed infants easily consume the necessary amount of fats during their first year, but infants on formula would need the essential fatty acids containing omega-3. The omega-3 fatty acid supports the visual acuity and neurological development of the infants, and parents should offer their baby 1–2 grams of omega-3s per day

Protein

- protein supports infant's growth and development. It is vital for the replacement of body tissue, including repair and development. Protein strengthens muscles and supplies the brain cells with the necessary nutrients that aid infants in learning language skills. All the cells found in human body, including skin, hair, muscles, eyes and organs, contain protein; the protein requirements for infants and toddlers are much more than that of adults as they are growing rapidly and developing new protein tissue

Micronutrients

- calcium: Helps in building and maintaining strong teeth and bones. It supports the muscle function by promoting healthy nerves and aids in cell signalling and communicating
- iron: It supports the red blood cells to supply oxygen to all parts of the body and plays a major role in generating haemoglobin
- magnesium: Helps in the functioning of the nerves and muscles, maintains the bones strength and steadiness of heart rhythm
- phosphorous: Helps in the formation of teeth and bones and serves in building energy for the body. It also supports the red blood cells in delivering the oxygen and healthy functioning of cells
- zinc: supports the immune system and it is very essential for the growth of children. It is very critical to several internal processes and supports the nervous system
- potassium: Helps in upholding a healthy balance of water in the body tissues and blood. It also aids in muscle function and nervous system.

AVAILABLE MARKS

- vitamin A is required for a healthy eyesight and bone growth. It is essential for the regular working of the immune system
- vitamin D: Helps in absorbing calcium and maintenance of healthy teeth and bone
- vitamin C: helps in holding the cells together and repairing of red blood cells, tissues and bones. It helps in promoting a healthy immune system and lessens bruising from scrapes and falls
- vitamin B group: These vitamins help the body in the process of getting or making energy from the food we eat. They also help form red blood cells
- vitamin E: It helps in protecting the body from germs and strengthens the blood circulation system as well as improves the immune system

Current dietary recommendations:

- breast milk or infant formula: Breast milk or infant formula are the only nourishment needed by most healthy babies until they are 4–6 months. A baby's kidneys cannot handle the high protein and mineral content of dairy foods well until that age
- fruit, vegetables and non-wheat cereals are suitable first weaning foods; the amount and variety of foods should gradually be increased to include other types of cereals, dairy foods, meat, fish, eggs and pulses
- start weaning with pureed foods, e.g. fruits, vegetables or baby rice. These may be mixed with a little of the baby's usual milk (breast milk or formula) initially. A few teaspoons should be offered once a day, when the baby is not overly tired or hungry
- during the initial stages of weaning, babies will still be getting most of their nutritional requirements from either breast or formula milk (at least 500–600ml formula per day)
- because a baby's immune system takes time to develop, certain foods should never be introduced before 6 months of age, to reduce the risk of allergies developing or exposure to harmful bacteria. These foods include wheat, eggs, fish and shellfish (because of the risk of allergies) and certain cheeses (which may contain bacteria that the baby's immune system is not yet ready for)
- after 6 months babies can be introduced to dairy foods, foods containing wheat and a range of protein containing foods. As well as gradually increasing the quantity of foods given, the texture should also change, moving from smooth purees to mashed and lumpier foods .Foods to try at this stage include:
  - purees of vegetables and chicken or other types of meat
  - purees of vegetables and beans or lentils
  - bread, rice and pasta
  - full fat dairy foods such as yogurt and fromage frais
- full fat milk can be used in cooking, e.g. to make cauliflower cheese or other vegetables in cheese sauce (or with breakfast cereals)
- at 9–12 months babies should be having three meals a day, in addition to healthy snacks. Foods should be chopped, mashed or minced and include: Starchy foods, such as bread, rice, pasta or potatoes – around 2–3 servings per day. Meat, fish and alternatives – these can now be given raw or cooked and served with meals or given as finger foods. Milk (specifically whole milk) and dairy products (full fat), e.g. cheeses such as mild cheddar, yogurt, fromage frais. One or two servings per day of soft cooked meat, fish, eggs (well cooked) or pulses such as beans or lentil

AVAILABLE MARKS

- from 12 months a baby will be eating three meals a day, chopped if necessary, plus breast milk or whole cows' milk and healthier snacks like fruit, vegetable sticks, toast and rice cakes. They can now drink whole cows' milk. Choose full-fat dairy products as children under two need the extra fat and vitamins found in them. A baby can be given three to four servings a day of starchy food such as potatoes, bread and rice, three to four servings a day of meat, fish and alternatives and two servings a day of dhal or other pulses (beans and lentils)
- from two years old, if they are a good eater and growing well, they can have semi-skimmed milk

All other valid responses will be given credit.

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

Level 1 ([1]–[4])
Overall impression: basic
- Displays limited knowledge of the specific nutritional needs and current dietary recommendations for infants
- Limited analysis/may list several examples
- 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
- Displays adequate knowledge of the specific nutritional needs and current dietary recommendations for infants
- Adequate analysis
- At this level only one aspect of the question may be addressed
- 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
- Displays good knowledge of the specific nutritional needs and current dietary recommendations for infants
- Competent analysis – there may be some variation in the quality of analysis between the specific nutritional needs and current dietary recommendations for infants
- 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.

AVAILABLE MARKS

Level 4 ([13]–[15])
Overall impression: highly competent

- Displays very good to excellent knowledge of the specific nutritional needs and current dietary recommendations for infants
- Highly competent analysis of the nutritional needs and current dietary recommendations for infants will be demonstrated at the top of this level
- Quality of written communication is excellent. The candidate successfully selects and uses the most appropriate form and style of writing. Relevant material is 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 a high standard and ensure that the meaning is absolutely clear. [15]

(d) List three factors that influence bulimia nervosa. (AO1)

Answers may list three of the following:
Factors:

- thin-ideal internalisation
- social pressure for thinness
- body dissatisfaction
- dieting/fasting, negative affect
- bullying
- weight stigma/body image
- lonliness, isolation
- having a close relative with an eating disorder
- personal history of an anxiety disorder

Risk factors identified in a small number of studies include:

- ineffectiveness (general feelings of inadequacy)
- alcohol use
- psychiatric symptoms
- eating too little during childhood
- early puberty

(3 × [1]) [3]

(e) Examine the potential effects of bulimia nervosa. (AO1, AO2, AO3)

Answers may address the following:

- when individuals with bulimia vomit, over time, the stomach acid erodes the enamel of the teeth, leading to decay, cavities or gum disease
- some individuals experience ulcers or gastroesophageal reflux disease. The oesophagus becomes raw and inflamed, and forceful vomiting has the potential to rupture the oesophagus. In rare cases, over-stretching the stomach causes gastric rupture, a condition in which the contents of the stomach spill into the abdominal cavity, constituting a medical emergency; duodenal, stomach ulcers
- diuretic or "water pill" abuse damages the kidneys by contributing to dehydration and electrolyte imbalance
- laxative abuse causes gastrointestinal issues, such as irregularity and constipation
- both vomiting and laxative abuse lead to electrolyte imbalances which affect the heart rate and the function of other major organs, including the kidneys

	AVAILABLE MARKS
• like individuals with anorexia, people with untreated bulimia are at risk of heart failure, kidney failure and death • irregular period or amenorrhea • high blood pressure, severe headaches, seizures and fatigue	
[0] is awarded for a response not worthy of credit.	
Level 1 ([1]–[2]) Overall impression: basic • Displays limited knowledge of the potential effects of bulimia nervosa.	
Level 2 ([3]–[4]) Overall impression: adequate • Displays adequate knowledge of the potential effects of bulimia nervosa.	
Level 3 ([5]–[6]) Overall impression: competent • Displays very good to excellent knowledge of the potential effects of bulimia nervosa. [6]	37
Total	**100**