General Certificate of Secondary Education<br>2015

## Home Economics

# Unit 1: Diet and Health and Consumer Awareness 

[GHE11]

TUESDAY 26 MAY, MORNING

## MARK <br> SCHEME

## 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.

## SECTION A - Diet and Health

1 (a) Place ingredients from the recipe below in the correct section of the eatwell plate. (AO1)

Answers should be:

(b) Write down two ways the non-starch polysaccharide (NSP) content of this dish could be increased. (AO1)

Answers may include any two of the following points:

- increase vegetable content/fruit content
- use wholemeal/wholegrain breadcrumbs
- use wholemeal/brown/wholegrain pasta
- pulses, e.g. peas, beans, lentils
- seeds/nuts in topping
- brown rice
- do not accept: brown bread/more breadcrumbs/more pasta All other valid responses will be given credit
(2 $\times[1]$ )
(c) Tomatoes are a rich source of vitamin C .

Explain two functions of vitamin C. (AO1, AO2)
AVAILABLE

Answers should include any two of the following points:

- maintains body's connective tissue - important for wound healing
- increases absorption of non-haem iron/iron - to assist the development of red blood cells/prevent anaemia
- maintains healthy gums so teeth do not fall out/to prevent gum disease
- has antioxidant properties - so protects against CHD and some cancers
- fights infection by improving immunity of body
- healthy skin
- prevents scurvy

All other valid responses will be given credit
[1] basic explanation
[2] competent explanation
(2 $\times$ [2])
(d) Discuss three food safety precautions which should be taken when preparing Mediterranean Chicken for a pregnant woman. (AO1, AO2)

Answers should include any of the following points:

- care when handling raw poultry due to the potential presence of salmonella or listeria food poisoning bacteria which is harmful during pregnancy so that it does not come into contact with other foods
- ensure food is piping hot, cooked to above $63^{\circ} \mathrm{C} /$ cooked thoroughly
- always wash hands/equipment/surfaces when handling raw poultry to avoid the risk of cross-contamination
- avoid unpasteurised milk/food products which may cause listeria food poisoning
- wash peppers to avoid toxoplasmosis/as dirt in soil can cause miscarriage
- use hard cheese as soft cheese may contain listeria
- ensure chicken, yoghurt, peppers and cheese are 'in date'
- store perishables correctly in fridge $0-5^{\circ} \mathrm{C}$
- ensure chicken is fully thawed to avoid salmonella food poisoning if frozen
To obtain maximum marks at least one point must refer to a pregnant woman
[1] basic discussion
[2] competent discussion
(3 $\times$ [2])
(e) Explain the importance of including folate in the diet during pregnancy. (AO1, AO2)

Answers should include any of the following points:

- folate is required for brain and nervous system development in the foetus
- a lack of folate may lead to spina bifida, miscarriage, premature birth or slow growth
- needed for red cell production
- to prevent anaemia
- growth and development of foetus
[1] basic explanation
[2] competent explanation (1 $\times$ [2])

2 (a) Children (4-11 years) often eat too many sugary foods. Discuss two effects on their health of eating a diet high in sugar. (AO1, AO2)

Answers should include two of the following points:

- can encourage dental caries due to the action of the acid produced by bacteria (using the sugar residue), attacking the enamel
- sugar not used for energy is converted and stored as fat so may cause obesity
- excess fat caused by high sugar levels could lead to type 2 diabetes
- hyperactivity can be caused by a sugar rush in the body leading to a drop in energy levels as it wears off
Do not accept: type 1 diabetes/poor eating habits
All other valid responses will be given credit
[1] basic discussion
[2] competent discussion
(2 $\times$ [2])
(b) A healthy diet for children includes no more than 3 g of salt per day.
(i) Write down one way a parent can reduce salt in their child's diet. (AO1)
- add herbs \& spices instead of salt
- low sodium alternatives
- omit table salt
- read the label
- do not buy high salt processed foods/ready meals, e.g. sausages, pies etc.
- do not add salt when cooking/cook with less salt
- cut down on salty snacks, sauces and pickles
(1 $\times$ [1])
(ii) Write down one function of sodium in the body. (AO1)
- controls body fluids/fluid balance
- nerve and/or muscle function
(1×[1])
(c) Discuss why it is important for a child's calcium needs to be met.
(AO1, AO2)
- to achieve peak bone mass
- to avoid osteoporosis later in life
- growth of strong bones and teeth
- for blood clotting
- for muscle contraction
- reduces risk of rickets
[1] basic discussion
[2] competent discussion
[3] highly competent discussion
(1 $\times$ [3])
(a) Explain why it is important to follow these tips: (AO1, AO 2$)$

Answers should include any of the following points:
Get active and try to be a healthy weight

- exercise helps to burn off fat and prevents excess being stored in the body/uses excess calories
- it will help to prevent overweight/obesity - reduces BMI
- decreases the risk of dietary disorders such as coronary heart disease
- reduces the risk of diabetes
- protects hips, knees and back from weight strain
- improved self-esteem

Don't skip breakfast

- first meal of the day so it breaks the fast from the previous evening
- to make a contribution towards the daily energy and nutrient allowance, e.g. calcium from milk, vitamins from cereals
- to avoid snacking and grazing on high fat/sugar foods
- boosts metabolism
- improves concentration

Do not accept: most important meal of the day
All other valid points will be given credit
[1] basic explanation
[2] competent explanation
(2 $\times$ [2])
(b) Explain two nutritional reasons why fish should be included in the diet. (AO1, AO2)

Answers should include any one of the following points:

- good source of HBV protein - essential for growth/repair
- provides essential fatty acids - cannot be made by the body - omega 3 and 6 - essential fatty acids found in oil rich fish
- white fish is low in calories - good for weight control
- oil rich fish provides vitamin A - important for antioxidant properties to protect against cell damage
- calcium - found in fish where the bones are eaten, e.g. sardines, herring
- good source of vitamin D which helps to maintain bone health
- omega 3 in oily fish makes it a superfood, enables good brain development, helps prevent blood clots and helps keep skin and hair healthy
- fish oils lower cholesterol
- lower in fat than meat
N.B. should refer to the nutrients in fish

Do not accept: iron
All other valid points will be given credit
[1] basic explanation
[2] competent explanation
(2 $\times$ [2])

4 (a) Describe the following terms: (AO1, AO2)
Answers should include any of the following points:
functional foods

- foods that claim to have an additional health promoting property over and above government regulations regarding their normal nutritional content, e.g. cholesterol reducing spreads
- foods that add a disease preventing aspect to someone's diet, e.g. probiotic yogurt, prebiotic cereals or sterols/stanols in spreads/ margarine
food allergy
- a reaction to a specific food that causes the body's immune system to react, e.g. milk, eggs, nuts, seeds, shellfish, fish, wheat, soya, some fruits such as citrus, kiwi
- can be life threatening, e.g. anaphylaxis - affects airways which become swollen and breathing is difficult
- can develop very quickly so must be treated with an Epipen (adrenaline auto-injector) immediately
- may include description of symptoms - rashes, wheezing, itching, swelling of skin, vomiting, diarrhoea, abdominal pain, cough
Do not accept: food intolerance
All other valid responses will be given credit
[1] basic description
[2] competent description
(2 $\times$ [2])
(b) Write down two points to consider when planning meals for someone with a food allergy. (AO1)

Answers should include any of the following points:

- read the food labels carefully
- ask shop assistant for information where food is not labelled
- be wary of sauces or toppings containing allergy inducing ingredients, e.g. satay sauce
- be careful of any unusual ingredients, e.g. shellfish
- exclude the foods causing the problem from all meals
- identify replacements for foods that cannot be eaten
- identify the foods the individual is allergic to
- be aware of traces of food allergens that may be present in manufactured food, e.g. traces of nuts in other products such as chocolate
All other valid responses will be given credit

5 Discuss the possible impact of convenience foods on health and lifestyle. (AO1, AO2, AO3)

AVAILABLE MARKS

Answers should address some of the following points:
Health

- in some cases nutritive value is maximised through, e.g. freezing - peas freshly picked and frozen
- convenience jar sauces encourages the use of fresh meats, vegetables, etc.
- can check food labels to ensure unwelcome levels of fat or salt are not present
- may be high in salt if processed
- often high in saturated fat
- sweet desserts or children's yogurts sometimes very high in sugar
- nutritive value is often lost during processing
- additives may be used to improve the food's sensory appeal
- may have been stored or cooked incorrectly and therefore be unsafe
- may be lacking in NSP if low in fresh fruit and/or vegetables

Lifestyle

- ready-made meals save time
- ease of use - some foods are ready to eat or cook - reduces skills
- eliminates the need for advanced skills - meal can be put together by anyone
- can be more expensive
- food may have short shelf life so must be eaten quickly
- jars, tins, bottles have longer shelf-life - can be stored for a long time
- can cause waste, therefore bad for environment
- easily stored - smaller portion sizes available
- accept expensive or inexpensive if explained

Do not accept: fast foods or take-away foods
All other valid responses will be given credit
[0] is awarded for a response not worthy of credit
N.B. To be awarded Level 3, candidates must include reference to both health and lifestyle. Answers should not be list-like or bullet-pointed.

## Level 1 ([1]-[3])

Overall impression: basic

- Identifies and comments on a few obvious points relevant to the question
- A limited discussion applied in simple terms to the question
- Quality of written communication is basic


## Level 2 ([4]-[6])

Overall impression: competent

- Identifies and comments on some key points relevant to the question
- A competent discussion applied accurately to the question
- Quality of written communication is competent


## Level 3 ([7]-[9])

Overall impression: highly competent

- Identifies and comments on the key points relevant to the question
- A highly competent discussion applied accurately within the context of the question
- Quality of written communication is highly competent

6 Discuss the dietary advice for a 35 -year-old call centre worker wishing to reduce their risk of coronary heart disease. (AO1, AO2, AO3)

Answers should address some of the following points:

- foods supplying fat in the diet should not make up more than $35 \%$ of energy intake
- saturated fats should be reduced as they increase cholesterol and the risk of coronary heart disease
- low fat or 'fat free' options should be chosen where possible, e.g. semi-skimmed milk
- oil rich fish with heart protecting omega - 3 fatty acids should be eaten
- $50 \%$ of energy should come from carbohydrate foods, e.g. pasta, rice rather than fatty foods
- energy rich foods should be limited as they have a sedentary occupation
- reduce foods with high levels of salt to minimise hypertension, a risk factor in coronary heart disease
- include foods which supply soluble NSP as these reduce blood cholesterol
- check the labels for fat or salt content
- reduce alcohol intake

Do not accept: exercise/stop smoking
All other valid points will be given credit
[0] is awarded for a response not worthy of credit
N.B. To be awarded Level 3, candidates must include reference to food examples and show an understanding of the implications of a sedentary lifestyle.

## Level 1 ([1]-[3])

Overall impression: basic

- Identifies and comments on a few obvious points relevant to the question
- A limited discussion applied in simple terms to the question
- Quality of written communication is basic


## Level 2 ([4]-[6])

Overall impression: competent

- Identifies and comments on some key points relevant to the question
- A competent discussion applied accurately to the question
- Quality of written communication is competent


## Level 3 ([7]-[9])

Overall impression: highly competent

- Identifies and comments on the key points relevant to the question
- A highly competent discussion applied accurately within the context of the question
- Quality of written communication is highly competent

7 (a) Many stores operate a loyalty card system. Discuss the benefits of this marketing strategy for the consumer. (AO1, AO2)

Answers should address some of the following points:

- it is designed to reward the customer for shopping at the store
- it is a very effective marketing strategy providing financial incentives
- the customer may receive money back in the form of vouchers for money spent in store, hotels, partner groups etc.
- special promotions throughout the store allow you to earn extra points
- there is often a range of 'partner' companies which also allow you to build up points - can be used for family days out/meals etc
- may also give money off a range of products and services.
- every time a reward card is used the store keeps a record of your purchases and personalises any vouchers given
- can be used in different stores

Do not accept: it encourages repeat visits to the store or store loyalty
All other valid responses will be given credit
[1] basic discussion
[2] competent discussion
[3] highly competent discussion
[0] is awarded for a response not worthy of credit
(1×[3])
(b) Write down two in-store promotions that could be used to encourage consumers to spend money. (AO1)

Answers should include two of the following points:

- buy one get one free/half price $/ 3$ for 2
- price reductions, e.g. $20 \%$ off
- cross brand promotions
- gift free with purchase
- money off vouchers
- in-store sampling
- loss leaders
- loyalty cards/club cards
- price checking with other stores

All other valid responses will be given credit
(2 $\times$ [1])
(c) People from many different countries now live in Northern Ireland.

Discuss how the following factors may affect these families when shopping:

AVAILABLE MARKS

Answers should address some of the following points:
Cultural factors

- may choose familiar foods from their own country - may have difficulty accessing these; may be more expensive
- may require specific ingredients that suit their diet/religious beliefs
- may need to buy clothing from a specialist shop to suit their religious or ethnic beliefs
- may experience discrimination in shops
- may not understand the language


## Economic factors

- may have less money due to unemployment/language barrier so have to shop in less expensive shops/shop around
- may have to budget or prioritise needs over wants
- may not have access to credit so may need to use cash
- may have more money due to higher income for the same employment in this country, e.g. medical professionals
- difficulties with exchanging currency
N.B. Candidates must mention in one part of the answer that the person is from a different country to get full marks
All other valid responses will be given credit
[1] basic discussion
[2] competent discussion

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(2 \times[2])
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(d) Explain why a consumer may want to buy goods with the following symbol: ( $\mathrm{AO} 1, \mathrm{AO} 2$ )


Answers should address some of the following points:

- it shows the item/packaging is capable of being recycled so it is less wasteful
- it does not have to be dumped so they will not be contributing to landfill.
- they know that they are supporting environmentally friendly products
- it is better for the environment
N.B. Do not accept 'made from recycled materials'.

All other valid responses will be given credit
[1] basic explanation
[2] competent explanation
(1 $\times$ [2])

8 (a) Analyse the use of the internet as a method of shopping for college students. (AO1, AO2, AO3)

AVAILABLE

Answers should include any of the following points:

- they will probably have computer skills so easy to use
- can access cheaper products - useful if they don't have much money
- can have free wifi on campus so no extra charges
- may have little time to order goods if studying, although quicker than going round shops
- may have more free time in evenings to search online
- popular as there is a wide range of goods - useful if they're into sport or hobbies
- may not have a credit card if college students
- may have limited access to the internet if not on campus so may incur charges
- may have difficulty with delivery of goods if not at home
- may be susceptible to internet fraud
- tendency to overspend
- student discount cards
N.B. must relate to college student

All other valid responses will be given credit
[0] is awarded for a response not worthy of credit
[1] basic analysis
[2] adequate analysis
[3] competent analysis
[4] highly competent analysis
(1 $\times$ [4])
(b) College students often live away from home. Discuss two ways this change in lifestyle can influence a student's shopping behaviour. (AO1, AO2)

Answers should include some of the following points:

- should prioritise needs over wants and ensure essentials are purchased first so as not to waste resources
- can shop with others and buy in bulk to save money and take advantage of special offers/deals/vouchers/coupons
- can use student discount card in shops and on public transport to save money
- may shop in charity shops
- may visit shops close at hand which could be more expensive
- may visit supermarkets late at night to get reduced items
- no parental influence on purchasing or shopping so more freedom of choice
All other valid responses will be given credit
[1] basic discussion
[2] competent discussion
(2 $\times$ [2])
(c) Outline the protection offered by the Consumer Protection (Distance Selling) Regulations (2000) for online purchases. (AO1)

Answers should include some of the following points:

- give consumers additional rights when they shop via the internet
- consumers are entitled to clear information before they order about supplier's details, delivery costs and arrangements
- customers are allowed to cancel within 7 days of receiving the goods
- they are entitled to a full refund if the goods or services are not delivered within 30 days
N.B. Any reference made to Consumer Contract Regulations will be awarded.

All other valid responses will be given credit
[1] basic outline
[2] competent outline
( $1 \times[2]$ )

9 (a) Evaluate the decision to use cash when buying a new coat. (AO1, AO2, AO3)

Answers should include any of the following points:

- can see how much is spent
- consumers sometimes feel more in control
- may get discount for cash
- need to have cash in store - may not have enough if coat is expensive
- may be more easily stolen
- interest-free
- no further payments to be made
- can't buy online
- inconvenient to visit ATM/bank to withdraw cash
- card facilities may not be available in store
N.B. Candidate must include both positive and negative points to access Level 3.
All other valid responses will be given credit
[0] is awarded for a response not worthy of credit
Level 1 ([1]-[2])
Overall impression: basic
- Identifies and comments on a few obvious points relevant to the question
- A limited evaluation applied in simple terms to the question


## Level 2 ([3]-[4])

Overall impression: competent

- Identifies and comments on some key points relevant to the question
- A competent evaluation applied accurately to the question


## Level 3 ([5]-[6])

Overall impression: highly competent

- Identifies and comments on the key points relevant to the question
- A highly competent evaluation applied accurately within the context of the question
( $1 \times[6]$ )
(b) A consumer has tried to return a faulty computer game recently bought in a local store. The store only offers a credit note instead of a refund. Discuss the rights of the consumer in this situation. (AO1, AO2)

Answers should include any of the following points:

- The Sale \& Supply of Goods Act 1994 (as amended) states that the goods should be of satisfactory quality, i.e. free from faults
- if goods are not of satisfactory quality the consumer has the right to reject them and ask for a refund of money
- the consumer has the right to ask for a refund if he can provide proof of purchase that he bought it in that store
- a consumer has the right not to accept a credit note in place of a refund as it did not remain of satisfactory quality for a reasonable period of time
- can take to court/legal action

All other valid responses will be given credit
[0] is awarded for a response not worthy of credit
[1] basic discussion
[2] competent discussion
[3] highly competent discussion
(1×[3])
(c) Write down two consumer organisations which provide support when buying goods and services. (AO1)

Answers may include any two of the following points:

- Advice NI
- Which?
- Consumer Focus/Consumer Futures
- Consumer Advice Centre
- The Consumer Council
- Citizens Advice/Citizens Advice Bureau
- Trading Standards

All other valid responses will be given credit

10 Discuss the benefits of teaching adolescents (12-18 years) how to manage their money. (AO1, AO2, AO3)

- teaches financial responsibility and lets them practice making good decisions with their money
- develops good habits for the future so they are less likely to run into debt
- helps them appreciate how much everything costs
- helps them examine their spending and prioritise it - can budget their money
- encourages saving, enabling them to always have money put aside for when they need it
- helps relieve pressure on parents to provide everything
- enables them to have control over their finances
- supports their understanding of Maths learnt in school
- encourages financial independence - essential for building their confidence and self-esteem
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

- Identifies and comments on a few obvious points relevant to the question
- A limited discussion applied in simple terms to the question
- Quality of written communication is basic
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Level 2 ([4]-[6])
Overall impression: competent
- Identifies and comments on some key points relevant to the question
- A competent discussion applied accurately to the question
- Quality of written communication is competent


## Level 3 ([7]-[9])

Overall impression: highly competent

- Identifies and comments on the key points relevant to the question
- A highly competent discussion applied accurately within the context of the question
- Quality of written communication is highly competent

