



*Rewarding Learning*

**ADVANCED  
General Certificate of Education  
2013**

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## **Home Economics**

**Assessment Unit A2 1**

*assessing*

**Consumer Issues**

**[AN211]**

**WEDNESDAY 15 MAY, MORNING**

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# **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.

## Section A

AVAILABLE  
MARKS

- 1 (a) Briefly explain how dioxins, metals and packaging materials can contaminate food. (AO1, AO2)

### Mark Band ([0]–[3])

Overall impression: basic

- inadequate knowledge and understanding of how dioxins, metals and packaging materials can contaminate food
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to briefly explain how the listed industrial chemicals can contaminate food
- quality of written communication is basic

### Mark Band ([4]–[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of how dioxins, metals and packaging materials can contaminate food
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to briefly explain how the listed industrial chemicals can contaminate food
- quality of written communication is reasonable to good

### Mark Band ([8]–[10])

Overall impression: very good to highly competent

- clear knowledge and understanding of how dioxins, metals and packaging materials can contaminate food
- demonstrates a very good to highly competent ability to apply knowledge and understanding to the question
- demonstrates a very good to highly competent ability to briefly explain how the listed industrial chemicals can contaminate food
- quality of written communication is very good to highly competent

**Some examples of suitable points to be briefly explained by the candidate:**

Dioxins

- dioxins may be released from industrial and combustion processes into the air, water or land
- animals and fish take up dioxins present in their food and from any soil or sediment they may also take in during feeding, these compounds are not readily lost by the animal or fish but instead pass into its body fat, where they continue to accumulate
- foods containing animal fat, such as milk, meat, fish and eggs (and their products) are the main source of dioxins in the diet

### Metals

- metals can be present in food naturally or as a result of human activities (such as agricultural practices, industrial emissions, car exhausts), these activities cause the metals to be released into the water, land and air and from there to the food chain for example, mercury becomes concentrated in shellfish, crustaceans and fish and thus also passes, in the form of highly toxic mercury methylate, into the human food chain; green leafy vegetables absorb lead from the soil
- food can become contaminated from metals during manufacture, processing and storage, for example, tin from unlacquered tin cans

### Packaging materials

- food can become contaminated from food packaging materials such as plastic, inks, cardboard, waxed paper, aluminum foil and cartons when the chemicals used in their production migrate into the food during storage

All other valid points will be given credit [10]

- (b) Assess the risks to human health related to the presence of dioxins, metals and packaging materials in food. (AO1, AO2)

### Mark Band ([0]–[5])

Overall impression: basic

- inadequate knowledge and understanding of the risks to human health related to the presence of dioxins, metals and packaging materials in food
- demonstrates a limited ability to assess the risks
- quality of written communication is basic

### Mark Band ([6]–[10])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of the risks to human health related to the presence of dioxins, metals and packaging materials in food
- demonstrates a reasonable to good ability to assess the risks
- quality of written communication is reasonable to good

### Mark Band ([11]–[15])

Overall impression: very good to highly competent

- clear knowledge and understanding of the risks to human health related to the presence of dioxins, metals and packaging materials in food
- demonstrates a very good to highly competent ability to assess the risks
- quality of written communication is very good to highly competent

**Some examples of suitable points to be assessed by the candidate:**

## Dioxins

- for most people, 90 percent of human dioxin exposure comes from food, particularly meat, fish, poultry, cheese, milk, butter, free range eggs and oily fish have been measured as having high levels
- according to the FSA, dioxins have no immediate effect on health, even at the highest levels found in foods, the potential risks to health come from long-term exposure to high levels
- exposure to high levels have been shown to cause a wide range of effects, including cancer, adverse reproductive and developmental effects, birth defects, immune system abnormalities, endometriosis, heart related conditions, skin disease such as chloracne and other skin effects such as rashes

## Metals

## cadmium

- cadmium absorption after dietary exposure in humans is relatively low (3–5%) but cadmium is efficiently retained in the kidney and liver in the human body frequently resulting in kidney damage
- cadmium, is a cumulative poison, i.e. the danger lies primarily in the regular consumption of foodstuffs with low contamination
- no connection with cancerous disorders has been found
- cadmium is not known to damage the unborn child as it does not transfer easily from the mother to baby
- the levels of cadmium exposure through food that are consumed by most people are not of major health concern

## mercury

- mercury in the form of its methyl compounds is specifically the most toxic of the heavy metals; when consumed orally, it first passes into the liver, the kidneys and the brain although accumulation only takes place temporarily and a large part is excreted with the faeces.
- the FSA have given advice about fish consumption for pregnant women since excessive consumption of shark, marlin and swordfish could pose a risk to the development of the nervous system and brain for the unborn child

## lead

- human exposure is mainly through food although levels have been falling in the UK
- children can be especially vulnerable as they consume more food per kilogram of body weight than adults and developing organs are more susceptible to toxic effects of lead
- risks are low to negligible for most adults although long-term exposure can cause anaemia, lethargy, kidney or liver damage, high blood pressure

#### aluminium

- ingestion of aluminium is usually not harmful but may cause stomach upset with diarrhoea if large quantities are eaten
- some research suggests a link between an accumulation of aluminium in the body and Alzheimer's disease and other neurological conditions such as Parkinson's and multiple sclerosis although the Alzheimer's Society says no casual relationship has been proved

#### arsenic

- large amounts can damage the stomach, heart and nervous system and may cause death
- prolonged exposure may produce lung, skin and bladder cancers
- it is very unlikely that the general population will be exposed to a level of arsenic high enough to cause adverse health effects

#### Packaging materials

##### Bisphenol-A or BPA

- very small amounts of BPA can transfer from packaging into food and drinks, but these levels of exposure are not considered to be harmful
- independent experts have worked out how much BPA we can consume every day over a lifetime without coming to any harm, and the amount people actually absorb from all food and drink is significantly below this level.
- independent studies have shown that, even when consumed at high levels, BPA is rapidly absorbed, detoxified, and eliminated from humans and, therefore, is not a health concern

#### Adhesives

- in recent years, there has been some concern that phthalates used in adhesives may have a harmful effect on human reproductive development, because they have been reported to be endocrine disrupters
- according to the FSA, there is still no conclusive evidence of a link between harmful effects on human reproductive health and exposure to these chemicals
- in animal studies, phthalates have been found to affect the liver, but this is not thought to be a risk for humans at the levels of phthalates that we might consume in food

All other valid points will be given credit

[15]

25

- 2 (a) Explain how the Consumer Credit Act 1974 protects the consumer.  
(AO1, AO2)

**Mark Band ([0]–[3])**

Overall impression: basic

- inadequate knowledge and understanding of the Consumer Credit Act 1974
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to explain how this legislation protects the consumer
- quality of written communication is basic

**Mark Band ([4]–[7])**

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of the Consumer Credit Act 1974
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to explain how this legislation protects the consumer
- quality of written communication is reasonable to good

**Mark Band ([8]–[10])**

Overall impression: very good to highly competent

- clear knowledge and understanding of the Consumer Credit Act 1974
- demonstrates a very good to highly competent ability to apply knowledge and understanding to the question
- demonstrates a very good to highly competent ability to explain how this legislation protects the consumer
- quality of written communication is very good to highly competent

**Some examples of suitable points to be explained by the candidate:**

- protects the consumer by providing them with information; the Act ensures that consumers are provided with accurate information about credit and hire agreements such as personal loans, hire-purchase agreements, credit cards and store cards. The Act provides rules for credit advertising and it provides for “truth in lending” by showing the total cost of credit in the form of the Annual Percentage Rate (APR)
- protects the consumer by providing for rights and obligations; the Act provides for rights and obligations for both consumer and traders and sets out procedures to be used in the event of default, termination or early settlement of an agreement

- offers the consumer joint and several liability; Section 75 of the Act provides protection for the consumer in cases of breach of contract or misrepresentation where goods or services have been bought on credit, for example, if the goods are faulty the consumer can claim against either the supplier or the provider of the finance or both
- protects the consumer by allowing them to cancel an agreement; an agreement is cancellable where the consumer has spoken face to face with the trader and signed away from trade premises
- protects the consumer from extortionate credit agreements; the Act gives the courts power to grant relief to consumers who have entered into extortionate credit transactions. An agreement is defined as extortionate if it requires the consumer to make payments which are grossly exorbitant

All other valid points will be given credit [10]

- (b) Discuss the practical advice which could be given to consumers to help achieve financial stability. (AO1, AO2)

**Mark Band ([0]–[5])**

Overall impression: basic

- inadequate knowledge and understanding of how to achieve financial stability
- demonstrates a limited ability to present practical advice to help consumers achieve financial stability
- demonstrates a limited ability to discuss this advice
- quality of written communication is basic

**Mark Band ([6]–[10])**

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of how to achieve financial stability
- demonstrates a reasonable to good ability to present practical advice to help consumers achieve financial stability
- demonstrates a reasonable to good ability to discuss this advice
- quality of written communication is reasonable to good

**Mark Band ([11]–[15])**

Overall impression: very good to highly competent

- clear knowledge and understanding of how to achieve financial stability
- demonstrates a very good to highly competent ability to present practical advice to help consumers achieve financial stability
- demonstrates a very good to highly competent ability to discuss this advice
- quality of written communication is very good to highly competent



**Some examples of suitable points to be discussed by the candidate:**

Planning and managing a budget

- calculate income; from all sources such as pay, benefits, bonus payments, other incomes; if income varies from month to month, calculate the average monthly income
- calculate expenditure; there are many websites that have an online budget calculator to make this easier; it should include one off expenses such as birthdays, Christmas, car tax and insurance
- prioritise; pay priority bills first, e.g. rent or mortgage, rates and utility bills; if this is difficult, advice is to contact the organisations as soon as possible and ask to set up an arrangement where payments can be spread until finances are more secure
- review regularly; review if circumstances change to check that budget is realistic, adjust if necessary; check credit card and bank statements immediately they arrive
- maintain the budget; establish a method of keeping track of spending – on a spreadsheet, in a notebook; set up a direct debit for key bills to help spread the payments

Saving for the future

- long and short term savings plans; establish financial goals for any money left over, e.g. reducing debts, saving for a holiday, saving for retirement
- regular saving; if there is money left over and loans and credit cards are at a manageable level, start a savings plan; shop around for the best rate of interest and consider accessibility and security

Dealing with debt

- increase income; check all benefits are accurate, advice agencies can help with this, e.g. the government’s Directgov website
- decrease expenditure; make small cutbacks on non-essential items; check the APR on credit cards or loans and shop around for a better deal; switch phone or internet services to a new supplier
- debt; seek advice, several organisations offer a free service, e.g. Citizens Advice, National Debtline and the Consumer Credit Counselling Service

All other valid points will be given credit [15]

**Section A**

25

**25**

## Section B

AVAILABLE  
MARKS

- 3 Advertising strategies used by the food industry to promote food are often blamed for contributing to inadequate diets and poor health among both adults and children.

Describe some of these advertising strategies and consider their effect on consumer diet and health. (AO1, AO2, AO3)

### Mark Band ([0]–[5])

Overall impression: basic

- inadequate knowledge and understanding of some advertising strategies used by the food industry to promote food
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to describe these strategies
- demonstrates a limited ability to consider the effect of these strategies on consumer diet and health
- quality of written communication is basic

### Mark Band ([6]–[10])

Overall impression: adequate to minimally competent

- adequate to minimally competent knowledge and understanding of some advertising strategies used by the food industry to promote food
- demonstrates adequate to minimally competent ability to apply knowledge and understanding to the question
- demonstrates adequate to minimally competent ability to describe these strategies
- demonstrates adequate to minimally competent ability to consider the effect of these strategies on consumer diet and health
- quality of written communication is adequate to minimally competent

### Mark Band ([11]–[15])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of some advertising strategies used by the food industry to promote food
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to describe these strategies
- demonstrates a reasonable to good ability to consider the effect of these strategies on consumer diet and health
- quality of written communication is reasonable to good

### Mark Band ([16]–[20])

Overall impression: very good to highly competent

- clear knowledge and understanding of some advertising strategies used by the food industry to promote food
- demonstrates a very good to highly competent ability to apply knowledge and understanding to the question
- demonstrates a very good to highly competent ability to describe these strategies
- demonstrates a very good to highly competent ability to consider the effect of these strategies on consumer diet and health
- quality of written communication is very good to highly competent

**Some examples of suitable points to be described and considered by the candidate:**

## Advertising Strategies

- celebrity and cartoon endorsement; the celebrities and characters used to promote the food are ones that are recognised and trusted or admired by children; cartoon characters change regularly to keep up with the latest film releases or favourites but the food is always the same and usually of poor nutritional quality
- model lifestyles; food manufacturers promote family life in adverts as perfect; the families are all attractive, cool, pleasant and cooperative; they are created to represent the types of families that people watching the ad would like themselves to be; sometimes a product is shown as something that brings families together, or helps them have fun together; all it takes is for mum or dad to bring home the right food, e.g. KFC bargain bucket
- facts and figures for credibility; these are often used to support health claims for a food suggesting perhaps that the facts are a result of extensive research, which consumers will often accept at face value
- jingles; jingles are designed to be simple, snappy, infectious, memorable and entertaining in the hope that the consumer will remember the product when in the supermarket
- omission of key information; this strategy means that the food manufacturer does not give the consumer the whole story, e.g. a low fat food will often be high in sugar but only the low fat information will be promoted

## Effect on diet and health

- encourage increased meal frequency which will increase total calorie consumption with the potential effect of unhealthy weight gain
- increase fast food consumption; these foods are often high in total fat, saturated fat, sugar and salt and low in fruit and vegetables and NSP; frequent consumption can impact on increased risk of obesity, heart disease, strokes, high blood pressure, certain cancers, Type 2 diabetes, tooth decay
- increase consumption of snacks high in fat and sugar; frequent consumption can increase risk of obesity, heart disease, Type 2 diabetes
- lower intake of fruit and vegetables; fruit and vegetables are low in calories and high in NSP which could help reduce the risk of obesity, Type 2 diabetes, heart disease; they also provide antioxidants which may help reduce the risk of heart disease and certain cancers

All other valid points will be given credit

[20]

20

- 4 Explain how the consumer is protected when buying goods on-line. (AO1, AO2, AO3)

**Mark Band ([0]–[5])**

Overall impression: basic

- inadequate knowledge and understanding of how the consumer is protected when buying goods on-line
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to explain how the consumer is protected when buying goods on-line
- quality of written communication is basic

**Mark Band ([6]–[10])**

Overall impression: adequate to minimally competent

- adequate to minimally competent knowledge and understanding of how the consumer is protected when buying goods on-line
- demonstrates adequate to minimally competent ability to apply knowledge and understanding to the question
- demonstrates adequate to minimally competent ability to explain how the consumer is protected when buying goods on-line
- quality of written communication is adequate to minimally competent

**Mark Band ([11]–[15])**

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of how the consumer is protected when buying goods on-line
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to explain how the consumer is protected when buying goods on-line
- quality of written communication is reasonable to good

**Mark Band ([16]–[20])**

Overall impression: very good to highly competent

- clear knowledge and understanding of how the consumer is protected when buying goods on-line
- demonstrates a very good to highly competent ability to apply knowledge and understanding to the question
- demonstrates a very good to highly competent ability to explain how the consumer is protected when buying goods on-line
- quality of written communication is very good to highly competent

**Some examples of suitable points to be explained by the candidate:**

Protection when paying

- for consumers, paying with a credit card gives them a degree of security against non-delivery or fraud but only for transactions worth more than £100
- MasterCard SecureCode and Verified by Visa schemes are part of a security initiative by the credit card companies which is backed by the main banks
- using a service such as PayPal, money is transferred between two electronic accounts which are topped up using a credit card or bank transfer and accumulated funds can be moved to a bank account. These services often include buyer and seller protection, allow instant payments and give buyers a degree of comfort that the identity of a seller has been confirmed

Website security

- an online shop can prove its identity by using the SSL protocol on its website. When this is active the letters “https” are in front of the web address, the “s” standing for secure, and somewhere in the web browser frame there will be a yellow padlock. The consumer can click on the padlock to check that the seller is who they say they are and that their SSL certificate is current and registered to the right address

Consumer Protection (Distance Selling) Regulations 2000

- the trader must provide consumers with clear information about the goods so that the consumer can make an informed decision about whether or not they wish to buy. This information includes:
  - business name
  - business address (if seeking payment in advance)
  - description of goods or services
  - full price (including any taxes)
  - if consumers must call a premium rate telephone number, the cost of the call per minute including tax
  - details of delivery costs
  - who will pay for unwanted goods to be returned
  - details of how payment can be made
  - arrangements for delivery and when customers can expect goods to be delivered; and information on the right to cancel

All other valid points will be given credit [20]

**Section B**

20

20

## Section C

AVAILABLE  
MARKS

- 5 Explore the controversy surrounding the use of additives in food. (AO1, AO2, AO3)

### Mark Band ([0]–[7])

Overall impression: basic

- inadequate knowledge and understanding of the controversial use of additives in food
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to explore these issues
- quality of written communication is basic

### Mark Band ([8]–[14])

Overall impression: adequate to minimally competent

- adequate to minimally competent knowledge and understanding of the controversial use of additives in food
- demonstrates adequate to minimally competent ability to apply knowledge and understanding to the question
- demonstrates adequate to minimally competent ability to explore these issues
- quality of written communication is adequate to minimally competent

### Mark Band ([15]–[20])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of the controversial use of additives in food
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to explore these issues
- quality of written communication is reasonable to good

### Mark Band ([21]–[25])

Overall impression: very good to highly competent

- clear knowledge and understanding of the controversial use of additives in food
- demonstrates a very good to highly competent ability to apply knowledge and understanding to the question
- demonstrates a very good to highly competent ability to explore these issues
- quality of written communication is very good to highly competent

**Some examples of suitable points to be explored by the candidate:**

## Controversy surrounding colours

- some parents report that artificial colours and preservatives trigger hyperactivity in their children, although randomised controlled trials have generally failed to demonstrate a link
- a study published in 2007 suggested that mixes of certain artificial colours used in foods and drinks together with the preservative sodium benzoate, are associated with hyperactivity in some children, although it is not yet clear whether this is the cause of the hyperactivity
- the FSA has suggested that parents concerned about the effect of these colours avoid products containing those investigated in this study and have advised industry to remove them from the food supply
- the FSA warns that eating foods or drinks containing tartrazine can cause nettle rash (urticaria), dermatitis (an allergic skin condition), asthma, or rhinitis (runny nose) but only in a very small number of people
- artificial colourings are typically used to encourage children and adults to consume brightly coloured, highly processed food stuffs, such foods tend to be high in calories but often have little other nutritional value. Artificial colourings may thus encourage the consumption of an unhealthy diet, which is linked to many health problems, such as obesity and coronary heart disease

## Controversy surrounding sodium benzoate

- the FSA also warns that sodium benzoate and other benzoates could make the symptoms of asthma and eczema worse in children who already have these conditions
- sodium benzoate has been the subject of concern about cancer because when mixed with the additive vitamin C in soft drinks, it causes benzene, a carcinogenic substance
- significant research found that benzoate causes damage to the mitochondria, an important area of DNA; diseases that are now being linked to this damage include Parkinson's, neuro-degenerative diseases and ageing

## Controversy surrounding aspartame

- a study by Italy's independent Ramazzini Foundation has concluded that aspartame caused several types of cancer in rats at doses very close to the current acceptable daily intake for humans, not surprisingly these findings have been challenged by the sweetener industry and major sweetener users, e.g. Coca-cola and Nestlé
- the European Food Safety Authority (EFSA) reconfirmed that aspartame was safe. Having reviewed the new Italian study, its scientific experts decided that there was no need to further review the safety of aspartame nor to revise the previously established acceptable daily intake for aspartame

Controversy surrounding MSG

- many people believe that MSG is responsible for conditions such as headaches, stomach disorders, fatigue, depression, itchininess and numbness but every government across the world with a food licensing and testing system states that, “at normal levels in the diet”, MSG is recognised as safe
- some go so far as to say that improving the taste of foods means improving nutritional intake, that is to say that it is taste buds that actually trigger important digestive and metabolic functions, allowing people to better use the essential nutrients received from their diet
- the case against MSG remains unproven, but there remains a large body of respected nutritionists who are sure that MSG causes problems for many people, especially children
- some people believe MSG to be at the heart of the recent statistics of morbid obesity in the industrialised countries of the world. The addition of MSG makes food taste better and, therefore, makes us want to eat more

All other valid points will be given credit

[25]

25

**Section C**

**25**

**Total**

**70**