



*Rewarding Learning*

**ADVANCED SUBSIDIARY (AS)  
General Certificate of Education  
January 2014**

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**Home Economics**  
**Assessment Unit AS 2**

*assessing*

Priority Health Issues

**[AN121]**

**THURSDAY 16 JANUARY, AFTERNOON**

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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) The incidence of cardiovascular disease continues to rise in Northern Ireland. Propose and justify lifestyle advice that could help prevent the development of cardiovascular disease. (AO1, AO2, AO3)

### Mark Band ([0]–[3])

Overall impression: basic

- inadequate knowledge and understanding of lifestyle advice
- demonstrates a limited ability to apply this knowledge and understanding to the question
- demonstrates a limited ability to propose and justify the lifestyle advice
- quality of written communication is basic

### Mark Band ([4]–[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of lifestyle advice
- demonstrates a reasonable to good ability to apply this knowledge and understanding to the question
- demonstrates a reasonable ability to propose and justify the lifestyle advice
- quality of written communication is reasonable to good

### Mark Band ([8]–[10])

Overall impression: very good to highly competent

- clear knowledge and understanding of lifestyle advice
- demonstrates a very good to highly competent ability to apply this knowledge and understanding to the question
- demonstrates a very good to highly competent ability to propose and justify the lifestyle advice
- quality of written communication is very good to highly competent

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

- lose weight; excess weight is a risk factor for cardiovascular disease because being overweight increases the risk of hypertension and angina both risk factors for CVD
- be active every day; all exercise and being active strengthens the heart muscle and raises HDL cholesterol
- do not binge drink; reducing overall alcohol consumption and drinking one or two units of alcohol daily especially red wine can reduce stress levels and provide antioxidants which can be a protective factor. Reduces energy intake which can decrease risk of obesity as a risk factor for high blood pressure and ultimately CVD
- do not smoke or stop smoking; cigarette smoking reduces the capacity for oxygen to be carried in the cells and smoking narrows blood vessels which is a risk factor for CVD
- use relaxation techniques; relaxation reduces stress and anxiety which can help to lower blood pressure and ultimately CVD

All other valid points will be given credit

[10]

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- (b) Explain the role of homocysteine and dietary fat as risk factors for cardiovascular disease. (AO1, AO2, AO3)

AVAILABLE  
MARKS

**Mark Band ([0]–[3])**

Overall impression: basic

- inadequate knowledge and understanding of dietary fat and homocysteine
- demonstrates a limited ability to apply this knowledge and understanding to the question
- demonstrates a limited ability to explain how dietary fat and homocysteine can increase the risk of cardiovascular disease
- quality of written communication is basic

**Mark Band ([4]–[7])**

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of dietary fat and homocysteine
- demonstrates a reasonable to good ability to apply this knowledge and understanding to the question
- demonstrates a reasonable to good ability to explain how dietary fat and homocysteine can increase the risk of cardiovascular disease
- quality of written communication is reasonable to good

**Mark Band ([8]–[10])**

Overall impression: very good to highly competent

- clear knowledge and understanding of dietary fat and homocysteine
- demonstrates a very good to highly competent ability to apply this knowledge and understanding to the question
- demonstrates a very good to highly competent ability to explain how dietary fat and homocysteine can increase the risk of cardiovascular disease
- quality of written communication is very good to highly competent

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

Dietary fat

- high intake of saturated and trans fats; these raise total cholesterol, especially LDL cholesterol thus increasing the risk of cardiovascular disease
- diets low in monounsaturated fatty acids; monounsaturated fatty acids will lower LDL cholesterol and a diet low in these fats may mean that higher amounts of saturated fats are eaten increasing the risk of cardiovascular disease
- low intake of n-6 and n-3 polyunsaturated fatty acids; n-6 lowers HDL and LDL cholesterol, n-3 lowers blood triglycerides and LDL cholesterol without lowering the HDL cholesterol. Low intakes of these polyunsaturated fatty acids may increase the risk of cardiovascular disease

Homocysteine

- damage to arteries; high levels of the amino acid homocysteine damages the lining of the arteries, cholesterol then builds up inside the arteries which can lead to blockages
- excess homocysteine not removed; folate and the B complex vitamins are needed to make the enzymes that remove homocysteine from the body. If there is a low intake of folate, excess homocysteine is not removed thus increasing the risk of cardiovascular disease
- risk of clotting; homocysteine changes coagulation factor levels which encourages blood clots forming within the arteries increasing the risk of stroke and heart disease

All other valid points will be given credit

[10]

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- 2 (a) Outline a range of self help strategies used by adults to deal with mental or emotional health problems. (AO1, AO2, AO3)

AVAILABLE  
MARKS

**Mark Band ([0]–[3])**

Overall impression: basic

- inadequate knowledge and understanding of mental and emotional health
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to outline a range of self help strategies used by adults to deal with mental or emotional health problems
- quality of written communication is basic

**Mark Band ([4]–[7])**

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of mental and emotional health
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to outline a range of self help strategies used by adults to deal with mental or emotional health problems
- quality of written communication is reasonable to good

**Mark Band ([8]–[10])**

Overall impression: very good to highly competent

- clear knowledge and understanding of mental and emotional health
- 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 outline a range of self help strategies used by adults to deal with mental or emotional health problems
- quality of written communication is very good to highly competent

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

- physical activity; exercise can help promote a sense of achievement and can increase mood and raise emotions because exercise releases uplifting chemicals and endorphins into the body
- sleep; sleeping well can help to deal with anxiety and help to lower tension, stress and fatigue which can be contributory factors to poor mental health
- balanced diet; mood can be affected by the food or lack of food eaten and a balanced diet is essential in maintaining good mental health
- relaxation; this can be achieved from massage, aromatherapy, acupuncture, reflexology and yoga to reduce stress
- talking; talking can help individuals deal with or change how they feel. Talking in a safe confidential environment can help individuals come up with their own solutions to deal with specific difficulties that affect their mental health

All other valid points will be given credit

[10]

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- (b) Describe some of the factors that could increase the risk of children developing mental or emotional health problems.  
(AO1, AO2, AO3)

**Mark Band ([0]–[3])**

Overall impression: basic

- inadequate knowledge and understanding of factors that could increase the risk of children developing mental or emotional health problems
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to describe some of these factors
- quality of written communication is basic

**Mark Band ([4]–[7])**

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of factors that could increase the risk of children developing mental or emotional health problems
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to describe some of these factors
- quality of written communication is reasonable to good

**Mark Band ([8]–[10])**

Overall impression: very good to highly competent

- clear knowledge and understanding of factors that could increase the risk of children developing mental or emotional health problems
- 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 some of these factors
- quality of written communication is very good to highly competent

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

- school problems; a lack of friends, low educational achievement, peer pressure, exam stress and bullying can affect children’s self-esteem making them afraid to go to school or even depressed
- family risk factors; the family has a great impact both good and bad on the mental health of children; divorce, separation and violence, may cause the child sadness, disappointment, feelings of rejection and insecurity
- bereavement; if a child or young person loses someone significant to them, it can result in a range of emotions
- parental illness; the parent may be physically or mentally ill, which may impact on their ability to support the child. The young person may have to shoulder the caring responsibilities
- poverty; may limit their experiences and ability to socialise, and concerns about appearance and ‘being different’

All other valid points will be given credit

[10]

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**Section A**

20

AVAILABLE  
MARKS

## Section B

AVAILABLE  
MARKS

- 3 The Sexual Health Promotion Strategy (2008–2013) has identified the following four action areas to improve the sexual health of the population:

- Prevention
- Training
- Services
- Research and monitoring.

Describe how each of these action areas is being implemented in Northern Ireland. (AO1, AO2, AO3)

### Mark Band ([0]–[5])

Overall impression: basic

- inadequate knowledge and understanding of the Sexual Health Promotion Strategy
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to describe how each of the action areas is being implemented in Northern Ireland
- quality of written communication is basic

### Mark Band ([6]–[10])

Overall impression: adequate to minimally competent

- adequate to minimally competent knowledge and understanding of the Sexual Health Promotion Strategy
- demonstrates adequate to minimally competent ability to apply knowledge and understanding to the question
- demonstrates adequate to minimally competent ability to describe how each of the action areas is being implemented in Northern Ireland
- 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 the Sexual Health Promotion Strategy
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to describe how each of the action areas is being implemented in Northern Ireland
- quality of written communication is reasonable to good

### Mark Band ([16]–[20])

Overall impression: very good to highly competent

- clear knowledge and understanding of the Sexual Health Promotion Strategy
- 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 how each of the action areas is being implemented in Northern Ireland
- quality of written communication is very good to highly competent

### Some examples of suitable points to be described by the candidate:

Action area: Prevention

- development of community based programmes; such programmes promote sexual health and wellbeing including the prevention of STIs and HIV/AIDS focusing on those most at risk within the community and poor socio-economic areas
- education programmes; provide opportunities for young people in school

and youth settings to develop the skills they need for life to support them in appropriately managing their relationships, including sexual lifestyles and preventing risky behaviour

- public information campaigns; promote sexual health and raise awareness of sexual health issues and tackle the stigma surrounding HIV, STIs and sexual orientation. It is important that positive and accurate information about sexual health issues is promoted
- HPV immunisation programme; the HPV vaccine offers the potential to prevent up to 70% of cervical cancers. The vaccination programme is offered to 12–13 year old girls with a catch up programme up to the age of 18

Action area: Training

- effective training of staff; provide appropriate training for staff involved in sexual health issues covering core skills and issues such as awareness, attitudes, information, communication skills, sexuality, relationships and sexual health
- specialised training skills; provide specialist training in sexual health skills for health and social care professionals including training to enable them to deal effectively with issues facing lesbian, gay and bisexual men and women
- appropriate training of volunteers; suitable and appropriate training will be made available to youth and community workers and volunteers involved in sexual health promotion in non-statutory settings

Action area: Services

- improved access for all; ensure that information on local services is made available and accessible to all those wishing to avail of sexual health services
- improving services; family planning services tailored to the needs of all young people and initiatives targeted where teenage pregnancy rates are highest
- specific services for commercial sex workers; develop and deliver innovative services based on an assessment of the needs of commercial sex workers to promote and facilitate their increased access to sexual health information and services
- chlamydia testing programme; pilot a chlamydia testing programme for all those who which to be tested
- specific student services; develop a pilot scheme to expand sexual health services and clinics for students

Action area: Research and monitoring

- implementation of action plan; implement and evaluate the proposed action plans and monitor any relevant issues that arise for local areas
- commission research; plan and carry out specific research to meet any identified local need
- monitor teenage pregnancy; review and integrate the Teenage Pregnancy and Parenthood Strategy and Action Plan into the Sexual Health Promotion Action Plan

All other valid points will be given credit

[20]

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- 4 Discuss the current theories linked to the increased prevalence of obesity.  
(AO1, AO2, AO3)

AVAILABLE  
MARKS

**Mark Band ([0]–[5])**

Overall impression: basic

- inadequate knowledge and understanding of current theories linked to the increased prevalence of obesity
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to discuss current theories
- quality of written communication is basic

**Mark Band ([6]–[10])**

Overall impression: adequate to minimally competent

- adequate to minimally competent knowledge and understanding of current theories linked to the increased prevalence of obesity
- demonstrates adequate to minimally competent ability to apply knowledge and understanding to the question
- demonstrates adequate to minimally competent ability to discuss current theories
- 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 current theories linked to the increased prevalence of obesity
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to discuss current theories
- quality of written communication is reasonable to good

**Mark Band ([16]–[20])**

Overall impression: very good to highly competent

- clear knowledge and understanding of current theories linked to the increased prevalence of obesity
- 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 discuss current theories
- quality of written communication is very good to highly competent

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

- high fat diet; foods rich in fat such as chocolate, biscuits and cakes have a high energy value. Comfort eating and busy lifestyles have led to increased consumption of these foods and have contributed to overweight and obesity levels
- low consumption of fruit and vegetables; fruit and vegetables are low in fat and provide NSP which can have a satiety effect and help prevent snacking. Diets low in fruit and vegetables are often high in fat and higher in calorie content
- low levels of physical activity; work related activity is low, and leisure pursuits are becoming more sedentary. Low activity rates and a sedentary lifestyle do not allow for energy to be burnt off and so excess energy is stored as fat resulting in overweight
- sleep deficiency; sleep deprivation is related to a number of changes in metabolic activity, for example, the body's ability to handle glucose diminishes and appetite control suffers
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- increased appetite; an association between a lack of sleep and increased body mass index has been linked to hormonal changes that control hunger. Leptin levels (reducing appetite) are lowered due to a lack of sleep, while ghrelin levels (stimulating appetite) are increased

All other valid points will be given credit

[20]

AVAILABLE  
MARKS

20

- 5 Eating and health: A food and nutrition strategy for Northern Ireland makes the following recommendations;

<b>Fruit and Vegetables</b>	The average consumption of fruit and vegetables should increase to at least five portions of fruit and vegetables each day.
<b>Fish</b>	The average consumption of fish should increase to at least 2 portions of fish each week, of which 1 should be oily fish, e.g. tuna, mackerel, salmon.
<b>Alcohol</b>	For those who drink alcohol the consumption of alcohol should be within the recommended limits of 3–4 units per day for men and 2–3 units per day for women.
<b>Sugar/non-milk extrinsic sugars (NMES)</b>	The average consumption of NMES to dietary energy should be reduced to approximately 10% (equivalent to a reduction to 60g per day from 103g per day).

Discuss the rationale for each recommendation. (AO1, AO2, AO3)

#### Mark Band ([0]–[5])

Overall impression: basic

- inadequate knowledge and understanding of the food and nutrition strategy
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to discuss the rationale for each recommendation
- quality of written communication is basic

#### Mark Band ([6]–[10])

Overall impression: adequate to minimally competent

- adequate to minimally competent knowledge and understanding of the food and nutrition strategy
- demonstrates adequate to minimally competent ability to apply knowledge and understanding to the question
- demonstrates adequate to minimally competent ability to discuss the rationale for each recommendation
- 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 the food and nutrition strategy
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to discuss the rationale for each recommendation
- quality of written communication is reasonable to good.

**Mark Band ([16]–[20])**

- Overall impression: very good to highly competent
- clear knowledge and understanding of the food and nutrition strategy
- 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 discuss the rationale for each recommendation
- quality of written communication is very good to highly competent.

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

**Fruit and vegetables**

- source of antioxidants; fruit and vegetables contain antioxidants which can help prevent dietary cancers and cardiovascular disease because they prevent free radical damage
- source of phytochemicals; lycopene and flavanols found in red/orange fruit and vegetables act like antioxidants and help to lower the risks of some cancers
- source of NSP; fruit and vegetables provide both soluble and insoluble NSP which can help to lower blood cholesterol and aids digestion preventing cardiovascular disease, constipation and some cancers
- feeling of satiety; insoluble NSP can give a feeling of satiety which can help displace fat and reduce the risks of cardiovascular disease and obesity
- source of folate and iron; green vegetables are a valuable source of iron and folate to reduce incidence of iron deficiency anaemia and neural tube defects

**Fish**

- source of omega 3; oily fish contains n-3 polyunsaturated fatty acids which can help to reduce the risk of cardiovascular disease because it can help prevent blood clots and lowers LDL cholesterol without lowering HDL cholesterol

**Alcohol**

- reducing cancer risk ; drinking in moderation can be beneficial because some alcoholic drinks contain a range of phytochemicals, e.g. red wine contains polyphenols which are believed to have cancer fighting properties
- reduced risk of hypertension; drinking alcohol at levels in excess of 30 units of alcohol per week increases blood pressure
- reducing cardiovascular risk; evidence suggests that moderate consumption of alcohol can provide some protection against cardiovascular disease
- protective effect against cardiovascular disease; moderate consumption of alcohol has been shown to have a protective effect because it increases HDL cholesterol and it can reduce platelet aggregation reducing the risk of heart disease

**Sugar/non-milk extrinsic sugars (NMES)**

- dental decay; non-milk extrinsic sugars are the main cause of dental decay and the advice to lower the intake of NMES could reduce the incidence of dental decay
- lower energy intake; high consumption of sugar and sugary snacks is associated with overweight and obesity as excess energy is stored as fat

All other valid points will be given credit

[20]

20

**Section B**

**40**

**Total**

**60**

**AVAILABLE  
MARKS**