



Rewarding Learning

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

Home Economics
Assessment Unit AS 2

assessing

Priority Health Issues

[AN121]

THURSDAY 29 MAY, MORNING

**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) Describe the possible risks to health associated with overweight and obesity. (AO1, AO2, AO3)

Mark Band ([0]-[3])

Overall impression: basic

- inadequate knowledge and understanding of overweight and obesity
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to describe the possible risks to health associated with overweight and obesity
- quality of written communication is basic

Mark Band ([4]-[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of overweight and obesity
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to describe the possible risks to health associated with overweight and obesity
- quality of written communication is reasonable to good

Mark Band ([8]-[10])

Overall impression: very good to highly competent

- clear knowledge and understanding of overweight and 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 describe the possible risks to health associated with overweight and obesity
- quality of written communication is very good to highly competent

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

- type 2 diabetes; this may develop slowly as the body develops insulin resistance or reduced sensitivity to glucose
- higher risk of cancers; there is an increased risk of cancer when an individual is overweight e.g. breast, ovary, cervix, prostate, colon and rectum
- risk of cardiovascular disease; overweight people are more likely to have high levels of blood cholesterol which increases their risk of cardiovascular disease
- respiratory problems; excess weight places restrictions on the lungs causing difficulties in breathing, walking and exercising
- mental health problems; being overweight can affect body image and can cause low self-esteem potentially leading to stress, anxiety and depression and comfort eating which can lead to emotional health problems
- increased risk of hypertension; overweight people are more likely to have high blood pressure which can increase the risk of other health problems

All other valid points will be given credit

[10]

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- (b) Explain how low levels of activity and a high fat diet can influence energy balance. (AO1, AO2, AO3)

AVAILABLE
MARKS

Mark Band ([0]-[3])

Overall impression: basic

- inadequate knowledge and understanding of energy balance
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to explain how low levels of activity and a high fat diet influence energy balance
- quality of written communication is basic

Mark Band ([4]-[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of energy balance
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to explain how low levels of activity and a high fat diet influence energy balance
- quality of written communication is reasonable to good

Mark Band ([8]-[10])

Overall impression: very good to highly competent

- clear knowledge and understanding of energy balance
- 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 low levels of activity and a high fat diet influence energy balance
- quality of written communication is very good to highly competent

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

- sedentary lifestyle; increased mechanisation and a sedentary lifestyle can lead to a reduction in activity in everyday tasks and activities leading to a positive energy balance
- less physical activity; less energy is used and extra energy in the body is stored as fat resulting in obesity
- positive energy balance; eating a high fat diet can lead to energy input exceeding energy output because the amount of energy from fat is higher than other nutrients
- low satiety; foods high in fat are highly palatable and energy dense but have a low satiety level which can result in overeating
- portion sizes; high fat foods are often served in larger portion sizes

All other valid points will be given credit

[10]

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- 2 (a) Outline the current targets for promoting good sexual health in Northern Ireland as stated in the Sexual Health Promotion Strategy (2008-2013). (AO1, AO2, AO3)

Mark Band ([0]-[3])

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 outline the current targets for promoting good sexual health
- quality of written communication is basic

Mark Band ([4]-[7])

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 outline the current targets for promoting good sexual health
- 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 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 outline the current targets for promoting good sexual health
- quality of written communication is very good to highly competent

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

- to ensure the vast majority (92%) of 11-16 year olds should not have experienced sexual intercourse, because early sexual activity increases the risk of STIs and cervical cancer
- a reduction of 25% in the rates of births to teenage mothers under 17 years of age because this causes an increased demand upon social, health and education services
- all patients assessed as clinically urgent to have access to specialist sexual health services within 2 working days
- a reduction of 25% in the number of new episodes of gonorrhoea – because it is the most common sexually transmitted infection and will be seen as a measure of the sexual health of the population

All other valid points will be given credit

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AVAILABLE
MARKS

(b) Describe two sexual health services available to individuals in Northern Ireland. (AO1, AO2, AO3)

AVAILABLE
MARKS

Mark Band ([0]-[3])

Overall impression: basic

- inadequate knowledge and understanding of sexual health services
- demonstrates a limited ability to apply this knowledge and understanding to the question
- demonstrates a limited ability to describe two sexual health services available in Northern Ireland
- quality of written communication is basic

Mark Band ([4]-[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of sexual health services
- demonstrates a reasonable to good ability to apply this knowledge and understanding to the question
- demonstrates a reasonable to good ability to describe two sexual health services available in Northern Ireland
- quality of written communication is reasonable to good

Mark Band ([8]-[10])

Overall impression: very good to highly competent

- clear knowledge and understanding of sexual health services
- 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 describe two sexual health services available in Northern Ireland
- quality of written communication is very good to highly competent

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

Family Planning Association

- information; local helpline and staff are available to provide options and information on contraception, sexually transmitted infections, pregnancy and abortion
- confidential advice; confidential non judgemental advice is provided by a range of experienced staff
- counselling; a free non-judgemental and non-directive counselling service is available

Genito-urinary medicine (GUM) clinics

- information and advice; free confidential advice provided about all aspects of sexual health in a NHS clinic without the need of a referral from a GP
- specialised treatment; treatment available in a clinical setting by a range of specialised male and female staff
- tests; a full range of tests for all sexual health issues is available as well as follow up treatment

All other valid points and services will be given credit

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Section A

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Section B

**AVAILABLE
MARKS**

3 Discuss the contributory factors which may increase the risk of mental and emotional health problems for older adults (65+). (AO1, AO2, AO3)

Mark Band ([0]-[5])

Overall impression: basic

- inadequate knowledge and understanding of mental and emotional health problems
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to discuss the contributory factors affecting older adults
- quality of written communication is basic

Mark Band ([6]-[10])

Overall impression: adequate to minimally competent

- adequate to minimally competent knowledge and understanding of mental and emotional health problems
- demonstrates adequate to minimally competent ability to apply knowledge and understanding to the question
- demonstrates adequate to minimally competent ability to discuss the contributory factors affecting older adults
- 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 mental and emotional health problems
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to discuss the contributory factors affecting older adults
- quality of written communication is reasonable to good

Mark Band ([16]-[20])

Overall impression: very good to highly competent

- clear knowledge and understanding of mental and 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 discuss the contributory factors affecting older adults
- quality of written communication is very good to highly competent

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

- retirement; work may have been a central part of life providing sense of purpose and structure to the day and retirement may bring feelings of sadness, rejection and anxiety
- bereavement; older people tend to experience the loss of people close to them over a number of years and subsequent grief may cause a range of emotional problems such as disbelief, denial, guilt and anger
- poor eating; many older people may have a decreased appetite and find

it difficult living alone and cooking for one. Missing meals may make older people feel tired and depressed

- poor sleep patterns; ongoing insomnia or sleep disturbance can lead to tiredness, irritability and difficulty concentrating. A long term lack of sleep may cause a mental health problem
- social life; many older people live alone and retirement can lead to isolation for some older adults especially if family and friends have moved away. A reduction in social commitments can affect emotional health and well being
- other health problems; e.g. dementia and Alzheimer’s disease affect the normal working functions of the brain and can lead to a decline in mental ability affecting memory, thinking, concentration
- physical health problems; illness, disability and chronic or severe pain can lead to depression and frustration
- income; financial worries due to a low income may lead to anxiety, stress and depression
- loss of independence; through reduced mobility, illness or moving to a nursing home can lead to mental and emotional health problems

All other valid points will be given credit

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- 4 Propose and justify the dietary and lifestyle advice to reduce the risk of breast, colon, lung and stomach cancers. (AO1, AO2, AO3)

Mark Band ([0]-[5])

Overall impression: basic

- inadequate knowledge and understanding of breast, colon, lung and stomach cancer
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to propose and justify dietary and lifestyle advice to reduce these cancers
- quality of written communication is basic

Mark Band ([6]-[10])

Overall impression: adequate to minimally competent

- adequate to minimally competent knowledge and understanding of breast, colon, lung and stomach cancer
- demonstrates adequate to minimally competent ability to apply knowledge and understanding to the question
- demonstrates adequate to minimally competent ability to propose and justify dietary and lifestyle advice to reduce these cancers
- 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 breast, colon, lung and stomach cancer
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to propose and justify dietary and lifestyle advice to reduce these cancers
- quality of written communication is reasonable to good

Mark Band ([16]-[20])

Overall impression: very good to highly competent

- clear knowledge and understanding of breast, colon, lung and stomach cancer
- 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 propose and justify dietary and lifestyle advice to reduce these cancers
- quality of written communication is very good to highly competent

Some examples of suitable points to be proposed by the candidate:

Dietary advice

- reduce fat intake; fat has been described as a promoter of carcinogenesis, it is associated with a development of breast and colon cancer
- increase non-starch polysaccharide; higher intakes from cereals, vegetables and fruit provide some protection against colon cancer, NSP increases bulk which increases transit time through the colon, dilutes harmful carcinogenic substances and ensures they are in contact with the colonic mucosa for a shorter time
- increase the intake of antioxidants; vitamins C, E and carotenoids and selenium can protect against all cancers by neutralising free radical action and oxidative damage to all cells
- eat a minimum of five portions of fruit and vegetables a day; they provide NSP, antioxidants and other substances such as lycopene and flavanols which protect against stomach and colon cancers
- eat less salty foods; sodium chloride has been associated with stomach cancers and eating less salt may decrease the risk of stomach cancer, eating less processed meats that are high in salt e.g. ham, bacon and sausages can decrease the risk of stomach and colon cancer
- eat more organic foods especially fruit and vegetables; these do not contain high levels of pesticides, herbicides, fungicides, fertilizers, which can increase the risk of hormone related cancers especially breast cancer

Lifestyle advice

- maintain a healthy weight within BMI range; obesity is strongly associated with an increased risk of breast cancer especially in post-menopausal women because it leads to increased adipose tissue which can be a risk for breast cancer in women
- be active; regular moderate physical activity for 30 minutes each day could be beneficial by influencing the immune system and reducing tumour development
- reduce stressful situations; stress can lead to unhealthy habits such as smoking, overeating and heavy drinking, these behaviours can lead to all types of cancer
- breast-feed children; some studies have shown that breast-feeding lowers breast cancer risk in women
- drink moderate amounts of alcohol; women who have one drink a day have a very small risk of developing breast cancer, whereas binge drinking is also known to increase the risk of all types of cancer
- do not smoke; cigarette smokers have around twice the risk of stomach cancer compared to non-smokers, heavy smoking increases the risk of developing lung cancer

All other valid points will be given credit

[20]

AVAILABLE
MARKS

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- 5 Cardiovascular disease is the main cause of death in the UK causing more than one in three deaths. *source: www.bhf.org.uk*

AVAILABLE
MARKS

Discuss current theories which link dietary factors with the development of cardiovascular disease. (AO1, AO2, AO3)

Mark Band ([0]-[5])

Overall impression: basic

- inadequate knowledge and understanding of cardiovascular disease
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to discuss some of the theories which link dietary factors with the development of cardiovascular disease
- quality of written communication is basic

Mark Band ([6]-[10])

Overall impression: adequate to minimally competent

- adequate to minimally competent knowledge and understanding of cardiovascular disease
- demonstrates adequate to minimally competent ability to apply knowledge and understanding to the question
- demonstrates adequate to minimally competent ability to discuss some of the theories which link dietary factors with the development of cardiovascular disease
- 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 cardiovascular disease
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to discuss some of the theories which link dietary factors with the development of cardiovascular disease
- quality of written communication is reasonable to good

Mark Band ([16]-[20])

Overall impression: very good to highly competent

- clear knowledge and understanding of cardiovascular disease
- 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 some of the theories which link dietary factors with the development of cardiovascular disease
- quality of written communication is very good to highly competent

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

- fat theory; a diet high in saturated fatty acids will raise total cholesterol, increase LDL cholesterol which increases risk of development of CVD; n-6 PUFA lowers LDL cholesterol and also lowers HDL cholesterol; n-3 PUFA lowers LDL cholesterol without lowering HDL cholesterol; monounsaturated fatty acids lower LDL cholesterol but do not lower HDL; trans fatty acids increase LDL cholesterol and also lower HDL; n-3 fatty acids lower blood triglycerides while trans fatty acids increase blood triglycerides

- homocysteine theory; excess homocysteine increases plasma cholesterol and causes blood clots to form, a diet low in B-vitamins, e.g. folic acid, B₆ and B₁₂ means that excess homocysteine is not removed from the blood
- All other valid points will be given credit

[20]

AVAILABLE MARKS
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40
60

