



Rewarding Learning

**ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2015**

Home Economics
Assessment Unit AS 2

assessing

Priority Health Issues

[AN121]

FRIDAY 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) Outline **four** lifestyle factors which can increase the risk of cancer. (AO1, AO2, AO3)

Mark Band ([0]–[3])

Overall impression: basic

- inadequate knowledge and understanding of four lifestyle factors which can increase the risk of cancer
- demonstrates a limited ability to outline these factors
- demonstrates a limited ability to apply this knowledge and understanding to the question
- quality of written communication is basic

Mark Band ([4]–[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of four lifestyle factors which can increase the risk of cancer
- demonstrates a reasonable to good ability to outline these factors
- demonstrates a reasonable to good ability to apply this knowledge and understanding to the question
- quality of written communication is reasonable to good

Mark Band ([8]–[10])

Overall impression: very good to highly competent

- clear knowledge and understanding of four lifestyle factors which can increase the risk of cancer
- demonstrates a very good to highly competent ability to outline these factors
- demonstrates a very good to highly competent ability to apply this knowledge and understanding to the question
- quality of written communication is very good to highly competent

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

- **exercise**; being inactive increases the risk of colon cancer as well as endometrial and breast cancers in post menopausal women
- **smoking**; smoking increases the number of free radicals in the body and specifically increases the risk of lung cancer. Tobacco smoke contains cancer causing chemicals, these can damage DNA and cause cancer by making cells grow and multiply out of control, smokers have the highest risk of all cancers compared to non-smokers
- **alcohol consumption**; a high intake of alcohol especially spirits can promote tumours in the upper respiratory tract, mouth and liver, those who drink more than 7–8 units per day have the greatest risk and high alcohol consumption is linked with an increased risk of liver cancer due to effect on liver cirrhosis, a high level of alcohol can also increase the risk of breast cancer
- **environmental factors**; exposure to UV rays can increase the risk of skin cancer and some occupations expose individuals to environmental conditions that can be linked to respiratory cancers

All other valid points will be given credit

[10]

10

- (b) Explain how antioxidants and non-starch polysaccharides (NSP) can help protect against certain cancers. (AO1, AO2, AO3)

AVAILABLE
MARKS

Mark Band ([0]–[3])

Overall impression: basic

- inadequate knowledge and understanding of how antioxidants and NSP can help to protect against certain cancers
- demonstrates a limited ability to apply this knowledge and understanding to the question
- demonstrates a limited ability to explain how antioxidants and NSP can protect against certain cancers
- quality of written communication is basic

Mark Band ([4]–[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of how antioxidants and NSP can help to protect against certain cancers
- demonstrates a reasonable to good ability to apply this knowledge and understanding to the question
- demonstrates a reasonable to good ability to explain how antioxidants and NSP can protect against certain cancers
- 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 antioxidants and NSP can help to protect against certain cancers
- 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 antioxidants and NSP can protect against certain cancers
- quality of written communication is very good to highly competent

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

- **antioxidant nutrients**; protect against oxidative damage to DNA by free radicals; vitamin C, E and beta carotene protects against digestive and respiratory cancers
- **vitamin C and lycopene**; these both protect against cancers of the mouth, oesophagus, throat, breast, pancreas and cervix
- **selenium**; selenium gives some protection against prostate and digestive cancers
- **flavanols**; antioxidants that are readily absorbed contain flavanols which protect against cancer and females with low flavanols are more susceptible to breast cancer

NSP

- **removal of toxins**; soluble fibre mops up toxins and other potentially harmful carcinogenic substances which are then in contact with the colonic mucosa for a shorter time reducing the risk of bowel cancer
- **satiety**; soluble NSP increases satiety which can reduce obesity and lower the risk of breast and endometrial cancers in women and prostate cancer in men
- **constipation**; a high NSP diet lowers the risk of constipation by adding

bulk to the faeces and speeding up transit time through the colon quickly removing any carcinogenic elements and reducing the risk of bowel, colon and rectum cancers
All other valid points will be given credit [10]

AVAILABLE MARKS

10

2 (a) Explain how psychological factors can contribute to a positive energy balance. (AO1, AO2, AO3)

Mark Band ([0]–[3])

Overall impression: basic

- inadequate knowledge and understanding of how psychological factors can contribute to a positive energy balance
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to explain how these factors can contribute to a positive energy balance
- quality of written communication is basic

Mark Band ([4]–[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of how psychological factors can contribute to a positive 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 these factors can contribute to a positive 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 how psychological factors can contribute to a positive 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 these factors can contribute to a positive energy balance
- quality of written communication is very good to highly competent

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

- **emotional distress**; trauma or emotional distress can trigger binge eating to provide comfort or reassurance and can cause a positive energy balance because of the consumption of high fat and sugar snacks
- **stress, anxiety and depression**; psychological factors linked to stress, anxiety and depression can trigger overeating due to cravings for energy dense foods, e.g. chocolate
- **boredom**; this can be a major reason for overeating and snacking where individuals are often unaware of how much food is consumed leading to a positive energy balance
- **disordered eating**; some individuals with psychological problems or those who have failed to lose weight using diets, can develop abnormal eating patterns and have a very poor relationship with food, leading to binge eating and overeating to cope with low self esteem

All other valid points will be given credit [10]

10

- (b) Describe how the Northern Ireland Physical Activity Strategy encourages the population to be more active. (AO1, AO2, AO3)

AVAILABLE
MARKS

Mark Band ([0]–[3])

Overall impression: basic

- inadequate knowledge and understanding of the Northern Ireland Physical Activity Strategy
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to describe how the strategy encourages the population to be more active
- quality of written communication is basic

Mark Band ([4]–[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of the Northern Ireland Physical Activity Strategy
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to describe how the strategy encourages the population to be more active
- 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 Northern Ireland Physical Activity 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 the strategy encourages the population to be more active
- quality of written communication is very good to highly competent

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

- **policy development;** to develop cooperation and collaboration between various agencies and to encourage public policies to reduce the number of people who are physically inactive, e.g. the Walking Action Plan , Cycling Strategy - Regional Transport Strategy for Northern Ireland
- **public information campaigns;** raising awareness of the benefits of physical activity through public information and media campaigns, e.g. “Go Walking” “Get a life, get active”
- **professional development;** providing appropriate, effective training and leadership opportunities for those involved in exercise, health and recreation including conferences, seminars and short courses
- **providing opportunities;** providing safe, accessible and appealing opportunities for activities, e.g. cycling opportunities, access to forests, play areas for children. Age Concern “Actively Ageing Well” programme
- **funding and grants;** to increase the number of people participating in physical activity by implementing specific action areas, e.g. health promoting schools, health promoting work places, “Get Active in the Community Cash Grant Award” scheme

All other valid points and services will be given credit

[10]

10

Section A

20

Section B

AVAILABLE
MARKS

- 3 Explain the term glycaemic index and describe how those with diabetes can use glycaemic index as a guide when selecting foods, especially foods containing carbohydrates. (AO1, AO2, AO3)

Mark Band ([0]–[5])

Overall impression: basic

- inadequate knowledge and understanding of the term glycaemic index
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to describe how those with diabetes can use glycaemic index as a guide when selecting foods, especially foods containing carbohydrates
- 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 term glycaemic index
- demonstrates adequate to minimally competent ability to apply knowledge and understanding to the question
- demonstrates adequate to minimally competent ability to describe how those with diabetes can use glycaemic index as a guide when selecting foods, especially foods containing carbohydrates
- 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 term glycaemic index
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to describe how those with diabetes can use glycaemic index as a guide when selecting foods, especially foods containing carbohydrates
- 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 term glycaemic index
- 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 those with diabetes can use glycaemic index as a guide when selecting foods, especially foods containing carbohydrates
- quality of written communication is very good to highly competent

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

- **glycaemic index**; the term is used to describe in a quantitative way the rise in blood glucose that different carbohydrate foods produce, it is measured by the rise in blood glucose following ingestion of 50 g of the test carbohydrate food

- **high GI foods**; these foods break down quickly and during absorption they raise blood sugar levels quickly, e.g. white rice, potatoes, this can be useful for a diabetic to know what to avoid or what to eat before exercise or when they need glucose quickly
- **low GI foods**; these foods break down more slowly releasing glucose gradually into the bloodstream, e.g. beans, pasta, apple juice and fruit bread, foods with a low GI help control blood glucose levels because the slower absorption of sugar into the bloodstream is beneficial for diabetics because it regulates blood sugar levels and prevents fluctuations
- **sugar and starches**; only a small amount of sugar and white starchy foods containing refined carbohydrate should be eaten as they have a high GI resulting in a rapid increase in blood glucose and high levels of insulin, so those with diabetes may eat high GI foods as part of a meal rather than individual snacks
- **complex carbohydrate**; are mainly low GI and are absorbed slowly preventing rapid rises in blood glucose levels and foods high in soluble NSP improve glucose tolerance and the amount of insulin produced
- **protective factor for other diseases**; low GI foods lessen insulin production keeping blood triglycerides low. High triglycerides are a contributing factor in the development of heart disease for which diabetics have a higher risk
- **wholegrains and high fibre foods**; these have a lower GI and act as a physical barrier to slow down absorption of carbohydrate and so those with diabetes may chose wholemeal or mixed grain bread rather than white bread to stabilise blood glucose levels
- **combination of foods**; eating carbohydrates with fat and protein helps to slow down the digestion of high GI foods because fat and protein lower glycaemic index, e.g. chocolate has a medium GI because of its fat content and crisps will actually have a lower GI than potatoes cooked without fat; milk and other dairy products have a low GI because they contain protein and fat

All other valid points will be given credit

[20]

20

- 4 Discuss the rationale for the Sexual Health Promotion Strategy (2008–2013). (AO1, AO2, AO3)

Mark Band ([0]–[5])

Overall impression: basic

- inadequate knowledge and understanding of the Sexual Health Promotion Strategy (2008–2013)
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to discuss the rationale of this strategy
- 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 (2008–2013)
- demonstrates adequate to minimally competent ability to apply knowledge and understanding to the question
- demonstrates adequate to minimally competent ability to discuss the rationale of this strategy
- 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 (2008–2013)
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to discuss the rationale of this strategy
- 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 (2008–2013)
- 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 of this strategy
- quality of written communication is very good to highly competent

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

- **sexual health in Northern Ireland is poor**; with high levels of teenage pregnancy and increasing numbers of sexually transmitted infections. Poor sexual health has a negative impact on other aspects of health and well being
- **impact of unplanned pregnancy on young people**; unplanned pregnancy and parenthood can have an important impact on individuals and in particular, young people. Unplanned teenage pregnancy and early motherhood is associated with poor educational achievement, poor physical and mental health, social isolation and poverty
- **effect of STIs on health**; STIs can also have long term effects with possible associated complications such as infertility, ectopic pregnancy and cervical cancer
- **distorted messages**; to provide accurate and appropriate positive sexual health and well-being information
- **economic impact**; poor sexual health has significant economic costs. There are sizable healthcare costs associated with the treatment of STIs for example, the complications resulting from untreated Chlamydia such as pelvic inflammatory disease, ectopic pregnancy and infertility cost an estimated £1.5 million in Northern Ireland each year. There is also an economic impact of teenage births
- **accessibility of sexual health services**; a strategy is needed to reduce the stigma attached to seeking sexual health treatment and to reduce waiting times for those deemed clinically urgent

All other valid points will be given credit

[20]

20

AVAILABLE
MARKS

- 5 Describe a range of strategies which may help an adolescent cope with mental and emotional health problems. (AO1, AO2, AO3)

Mark Band ([0]–[5])

Overall impression: basic

- inadequate knowledge and understanding of a range of strategies which may help an adolescent cope with mental and emotional health problems
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to describe strategies specifically suitable for adolescents
- quality of written communication is basic

Mark Band ([6]–[10])

Overall impression: adequate to minimally competent

- adequate to minimally competent knowledge and understanding of a range of strategies which may help an adolescent cope with 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 describe strategies specifically suitable for adolescents
- 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 a range of strategies which may help an adolescent cope with 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 describe strategies specifically suitable for adolescents
- quality of written communication is reasonable to good

Mark Band ([16]–[20])

Overall impression: very good to highly competent

- clear knowledge and understanding of a range of strategies which may help an adolescent cope with 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 describe strategies specifically suitable for adolescents
- quality of written communication is very good to highly competent

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

- **talking strategies**; talking to friends, teachers or a counsellor can help with negative emotions and anxiety, specific counselling treatments can promote and develop coping strategies by helping the young person to understand their problem more clearly and come up with their own solutions
- **support groups**; some support groups can help to support adolescents in a relaxed environment and help with isolation and specific problem areas such as bullying, eating disorders, addictions and abuse which are prevalent in adolescents

- **music and dance**; listening to music or dancing can help adolescents to feel better, more relaxed and to deal with stress and it is also cheaper than some other strategies for adolescents
- **exercise**; being active and participating in exercise can produce endorphins, remove stress anxiety and tension, exercise can combat fatigue and help to improve sleep patterns
- **psychological treatments**; treatments from a psychologist or trained counsellor can provide a safe and confidential environment for an adolescent where they may talk openly, e.g. school counsellor, CAMHS
- **medication**; some prescribed medications can help to treat symptoms of insomnia and anxiety and can help to treat mild depression and eating disorders
- **diet**; eating regular meals can regulate blood sugar levels and maintain mood swings, omega 3 can help to alleviate symptoms in milder cases of depression, iron can assist cognitive function, eating regularly can help with stress
- **complementary therapies**; a wide range of complementary therapies such as yoga, massage, reflexology can support and relieve symptoms and promote relaxation and self-esteem for young people
- **cognitive behavioural therapy (CBT)**; can help the adolescent to change how they think and cope because CBT focuses on the problems and difficulties rather than the cause of the distress

All other valid points will be given credit

[20]

Section B

Total

**AVAILABLE
MARKS**

20

40

60

