



Rewarding Learning

**ADVANCED SUBSIDIARY (AS)
General Certificate of Education
January 2011**

Home Economics
Assessment Unit AS 2

assessing

Priority Health Issues

[AN121]

MONDAY 17 JANUARY, MORNING

**MARK
SCHEME**

Section A

AVAILABLE
MARKS

- 1 (a) Consider the role of fruit and vegetables in the prevention of cancer.
(AO1, AO2, AO3)

Mark Band ([0]–[3])

Overall impression: basic

- inadequate knowledge and understanding of the prevention of cancer
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to consider the role of fruit and vegetables
- demonstrates a limited ability to consider the role of fruit and vegetables in the prevention of cancer
- quality of written communication is basic

Mark Band ([4]–[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of the prevention of cancer
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to consider the role of fruit and vegetables
- demonstrates a reasonable to good ability to consider the role of fruit and vegetables in the prevention of cancer
- 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 prevention of 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 consider the role of fruit and vegetables
- demonstrates a very good to highly competent ability to consider the role of fruit and vegetables in the prevention of cancer
- quality of written communication is very good to highly competent

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

- antioxidants; vitamins A (retinoids and carotenoids), C and E which are found in many fruits and vegetables have a protective effect, these antioxidants are linked to the prevention of oxidative damage to DNA by free radicals
- phytochemicals; these are protective chemicals found in plant foods e.g. fruit and vegetables, examples of phytochemicals are:
 - lycopene found in tomatoes may prevent against cancer of cervix, prostate, stomach, bladder
 - glucosinolates found in vegetables help the liver in its detoxifying function so may help reduce tumour growth in the breast, liver stomach and
 - flavonoids found in citrus fruits protect against oxidative damage

- non starch polysaccharides; fruit and vegetables are a source of NSP, high levels of NSP lead to increased bulk and a faster transit time for waste through the large intestine this means carcinogenic substances are more dilute and have less contact time
- phyto-oestrogens; these are present in leeks, broccoli and asparagus, they may slow the progression of cancer and protect against breast and prostate cancers

All other valid points will be given credit.

[10]

- (b) Explain why a high energy intake may be a contributing factor to cancer. (AO1, AO2, AO3)

Mark Band ([0]–[3])

Overall impression: basic

- inadequate knowledge and understanding of cancer
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to explain high energy intake
- demonstrates a limited ability to explain why high energy intake contributes to cancer
- quality of written communication is basic

Mark Band ([4]–[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of cancer
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to explain high energy intake
- demonstrates a reasonable to good ability to explain why high energy intake contributes to cancer
- quality of written communication is reasonable to good

Mark Band ([8]–[10])

Overall impression: very good to highly competent

- clear knowledge and understanding of 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 explain high energy intake
- demonstrates a very good to highly competent ability to explain why high energy intake contributes to cancer
- quality of written communication is very good to highly competent

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

- high energy intake; this may be a contributing factor to cancer as it leads to increased adipose tissue hence overweight, in females being overweight after the menopause may increase the risk of breast cancer a high calorie diet may raise the production of ovarian hormones
- overweight and obesity; these are established risk factors for cancers of the oesophagus, colorectum, pancreas, endometrium, kidney and gallbladder
- obesity; especially abdominal fatness, causes higher than normal levels of hormones and growth factors that promote growth of cancer cells
- fat intakes; fat contributes to the total energy content of the diet, fat intake especially n-6 may be linked to cancer of the breast, colon and prostate

All other valid points will be given credit.

[10]

AVAILABLE
MARKS

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- 2 (a) Identify the aim of the Sexual Health Promotion Strategy (2008-2013) and outline the targets that will be used to measure the success of this strategy. (AO1, AO2, AO3)

Mark Band ([0]–[3])

Overall impression: basic

- inadequate knowledge and understanding of sexual health promotion strategy
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to identify the aim of the strategy
- demonstrates a limited ability to outline the targets
- quality of written communication is basic

Mark Band ([4]–[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of 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 identify the aim of the strategy
- demonstrates a reasonable to good ability to outline the targets
- 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 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 identify the aim of the strategy
- demonstrates a very good to highly competent ability to outline the targets
- quality of written communication is very good to highly competent

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

Aim:

- overall aim of strategy; to improve, protect and promote the sexual health and well being of the population

Targets:

- 92% of 11 to 16 year olds should not have experienced sexual intercourse by 2013; early sexual activity increases risk of STIs and cervical cancer
- a reduction of 25% in the rate of births to teenage mothers under 17 years of age by 2013; causes increased demand upon social, health, education services and their own families

- by March 2008, all patients assessed as clinically urgent to access specialist Genitor-Urinary Medicine/Sexual Health Services within two working days; to ensure rapid access to screening and early tracing of sexual contacts
- a reduction of 25% in the number of new episodes of gonorrhoea by 2013; number of new cases of gonorrhoea is considered a good proxy measure of sexual ill health in the population and usage of GUM services

All other valid points will be given credit.

[10]

- (b) Explain some of the reasons why sexual health in Northern Ireland is poor. (AO1, AO2, AO3)

Mark Band ([0]–[3])

Overall impression: basic

- inadequate knowledge and understanding of sexual health in N Ireland
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to explain some of the reasons why sexual health in N Ireland is poor
- quality of written communication is basic

Mark Band ([4]–[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of sexual health in N Ireland
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability explain some of the reasons why sexual health in N Ireland is poor
- 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 in N Ireland
- 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 some of the reasons why sexual health in N Ireland is poor
- quality of written communication is very good to highly competent

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

- high levels of teenage pregnancy and sexually transmitted infections; number of cases presenting to GUM clinics has increased and there is an increased number of births to teenagers aged 19 and under
- sexual health services; these are not well publicised, there are gaps in the provision of sexual health services, difficulties in accessing emergency contraceptive services for young people and some people have concerns about confidentiality
- moral or religious attitudes; in Northern Ireland this may discourage some people from talking about sexual issues, people have deeply held opinions and are too embarrassed to discuss issues openly
- distorted perceptions; the media present explicit and misleading images of relationships and sexuality, parents and teachers are too embarrassed

- to discuss sexual issues openly
- social climate; research highlights that there is a link between poor sexual health and those in the lower social economic groups and where unemployment is high

All other valid points will be given credit.

[10]

Section A

AVAILABLE MARKS
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Section B

AVAILABLE
MARKS

- 3 Present the current theories which link each of the factors listed to 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 present information on each factor
- demonstrates a limited ability to link each factor to 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 present information on each factor
- demonstrates adequate to minimally competent ability to link each factor to 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 present information on each factor
- demonstrates a reasonable to good ability to link each factor to 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 present information on each factor
- demonstrates a very good to highly competent ability to link each factor to cardiovascular disease
- quality of written communication is very good to highly competent.

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

AVAILABLE
MARKS

Raised blood lipids

- saturated fat; high intakes of saturated fat raise lipid levels and LDL cholesterol
- trans fatty acids; high intakes of trans fatty acids raise LDL and lower HDL

Homocysteine

- high homocysteine levels; excess levels of homocysteine damages the lining of the arteries, cholesterol then builds up inside the arteries which can lead to blockages
- homocysteine changes coagulation factor levels so as to encourage clot formation
- folic acids and the B complex vitamins are needed to make the enzymes that remove homocysteine from the body

Sodium

- sodium and health; intakes of sodium are linked with high blood pressure, with high intakes a contributing factor for cardiovascular disease in those who are salt sensitive
- DASH diet; findings from DASH research suggest lowering sodium intake as well as including low fat dairy products, nuts, fruit and vegetables, potassium, calcium and magnesium to control blood pressure

Alcohol

- heavy drinking of alcohol; more than 55 units for men and more than 35 units for females weekly is deemed to increase the risk of cardiovascular disease
- binge drinking; this increases triglycerides and LDL which may cause a sudden heart attack
- moderate alcohol intake; has been shown to have a protective effect against CVD; it increases HDL cholesterol and reduces platelet aggregation

All other valid points will be given credit.

[20]

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- 4 Explain the term glycemic index and examine the relevance of this for individuals with diabetes. (AO1, AO2, AO3)

Mark Band ([0]–[5])

Overall impression: basic

- inadequate knowledge and understanding of diabetes
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to explain glycemic index
- demonstrates a limited ability to examine the relevance for diabetics
- quality of written communication is basic

Mark Band ([6]–[10])

Overall impression: adequate to minimally competent

- adequate to minimally competent knowledge and understanding of diabetes
- demonstrates adequate to minimally competent ability to apply knowledge and understanding to the question
- demonstrates adequate to minimally competent ability to explain glycemic index
- demonstrates adequate to minimally competent ability to examine the relevance for diabetics
- 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 diabetes
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to explain glycemic index
- demonstrates a reasonable to good ability to examine the relevance for diabetics
- quality of written communication is reasonable to good.

Mark Band ([16]–[20])

Overall impression: very good to highly competent

- clear knowledge and understanding of diabetes
- 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 glycemic index
- demonstrates a very good to highly competent ability to examine the relevance for diabetics
- quality of written communication is very good to highly competent.

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

- glycemic index; the term is used to describe in a quantitative way the rise in blood glucose that different carbohydrate foods produce
- GI of food; the GI of food is measured by the rise in blood glucose following ingestion of 50g of test food containing carbohydrate and compared with the effect on blood glucose of 50g of standard food e.g. glucose or white bread

- high GI foods; these foods break down quickly during digestion they raise blood sugar levels higher and more quickly e.g. white rice, potatoes
- low GI foods; these foods break down more slowly releasing glucose gradually into the bloodstream e.g. beans, pasta, apple juice and fruit bread

Relevance for diabetes

- foods with a low GI factor may help control blood glucose levels and hunger
- high intake of low GI foods for diabetes; this results in slower digestion of starches and sugar and slower absorption of sugar into the bloodstream, this helps regulate blood sugar levels
- weight reduction/control; this is often important for people with non insulin diabetes, low GI foods also tend to be low in fat, both points benefit weight control
- diabetes as a risk factor for other diseases; low GI foods help to lower raised insulin levels which may be a contributing factor in the development of heart disease, those with diabetes have an increased risk of heart disease

All other valid points will be given credit.

[20]

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AVAILABLE
MARKS

5 Explain how the Promoting Mental Health Strategy is being implemented in Northern Ireland. (AO1, AO2, AO3)

AVAILABLE
MARKS

Mark Band ([0]–[5])

Overall impression: basic

- inadequate knowledge and understanding of the Mental Health Strategy
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to select relevant information
- demonstrates a limited ability to discuss how the strategy is being implemented
- 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 Health Strategy
- demonstrates adequate to minimally competent ability to apply knowledge and understanding to the question
- demonstrates adequate to minimally competent ability to select relevant information
- demonstrates adequate to minimally competent ability to discuss how the strategy is being implemented
- 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 Health Strategy
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to select relevant information
- demonstrates a reasonable to good ability to discuss how the strategy is being implemented
- 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 Health 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 select relevant information
- demonstrates a very good to highly competent ability to discuss how the strategy is being implemented
- quality of written communication is very good to highly competent

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

Policy development

- multi agency implementation group; the DHSSPS will establish a group to steer and oversee the action plan
- assessing and reporting; agencies and departments will assess the impact on health on an on going basis and the implementation group will report their progress annually
- promotion of mental and emotional health of children and young people; the Department of Education in partnership with Education and Library Boards will develop a policy
- develop a regional educational resource; Department of Education in partnership with the Health Promotion Agency (Public Health Agency) produce resources for use in schools e.g. anti bullying
- workplace Health Strategy; DETI in partnership with the Health and Safety Executive address the issue of work related stress

Raising awareness and reducing discrimination

- develop a public and professional information campaign; to raise awareness and understanding of mental health issues and reduce the stigma attached to mental health
- dissemination of information; information about local sources of help and support is developed, available and accessible
- partnerships between health trusts and education; ongoing links are maintained between schools and local health and social services

Improving skills and knowledge

- review of professional training; to ensure that the promotion of mental health and emotional wellbeing is fully included and takes account of the particular needs of disadvantaged groups
- assessing the need for and implementing parenting skills initiatives; to ensure guidance, training and regular updating of staff is available
- improving coping capabilities; partnerships will develop programmes among older people around times of bereavement

Preventing suicide

- awareness of suicide; the Department of Education will implement programmes for teachers and youth leaders
- outreach work; youth sector and Youth Council for NI develop outreach work with young people in areas of need especially young males
- support services; HSS trusts provide a support service and information booklet for individuals bereaved by suicide

All other valid points will be given credit.

[20]

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Section B

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Total

60

AVAILABLE MARKS