



Rewarding Learning

**ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2012**

Home Economics

Assessment Unit AS 2

assessing

Priority Health Issues

[AN121]

THURSDAY 7 JUNE, MORNING

MARK SCHEME

Section A

AVAILABLE
MARKS

- 1 (a) Describe the services provided by sexual health clinics (GUM clinics).
(AO1, AO2, AO3)

Mark Band ([0]–[3])

Overall impression: basic

- inadequate knowledge and understanding of the services provided by sexual health clinics (GUM clinics)
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to describe these services
- quality of written communication is basic

Mark Band ([4]–[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of the services provided by sexual health clinics (GUM clinics)
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to describe these services
- 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 services provided by sexual health clinics (GUM clinics)
- demonstrates a very good to highly competent ability to apply knowledge and understanding to the question
- demonstrates a very good to highly competent ability to describe these services
- quality of written communication is very good to highly competent

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

- information and advice; free information and advice from health advisers about having good sexual health; they talk through choices rather than telling the patient what to do
- tests; a full range of tests for sexually transmitted infections and the relevant treatment; some of the test results will be available quickly and a doctor is available to discuss them
- general check up; this is available for patients who wish to monitor their sexual health routinely or before starting a new sexual relationship or trying for a baby
- contraception; clinics can offer advice as well as free emergency contraception, e.g. morning after pill and condoms. Some clinics will also provide cervical smear tests
- counselling; available on a range of sexual health issues, support is also available for those having an HIV test or who have been diagnosed as HIV positive

All other valid points will be given credit

[10]

- (b) What is being done in Northern Ireland to educate young people and adults on sexual health issues. (AO1, AO2, AO3)

Mark Band ([0]–[3])

Overall impression: basic

- inadequate knowledge and understanding of what is being done in Northern Ireland to educate young people and adults on sexual health issues
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to identify examples of what is being done in this area
- quality of written communication is basic

Mark Band ([4]–[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of what is being done in Northern Ireland to educate young people and adults on sexual health issues
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to identify examples of what is being done in this area
- quality of written communication is reasonable to good

Mark Band ([8]–[10])

Overall impression: very good to highly competent

- clear knowledge and understanding of what is being done in Northern Ireland to educate young adults on sexual health issues
- 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 examples of what is being done in this area
- quality of written communication is very good to highly competent

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

- development of a Sexual Health Strategy for Northern Ireland; this includes targets relating to young people and adults
- public information campaigns; these aim to promote sexual health and well-being and raise awareness of specific health issues including HIV/AIDS with particular focus on those at risk
an example of a campaign is: “Sex don’t just do it, think it through” – the sexual health awareness campaign, developed by the Public Health Agency March 2010. The campaign, targeting 16–25 year olds, aimed to promote respect within relationships and empower young people to delay sexual intercourse until a time when they are ready

- provision of opportunities for young people in school, higher education and youth settings; these aim to inform and develop the skills needed for life to support them in appropriately managing their relationships including sexual lifestyles
- Northern Ireland Curriculum; this information is included in the Personal Development part of Learning for Life and Work – a statutory part of the Northern Ireland Curriculum at Key Stage 3 and 4

All other valid points will be given credit [10]

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- 2 (a) Discuss the theory that sleep deprivation may increase the risk of overweight and obesity. (AO1, AO2, AO3)

Mark Band ([0]–[3])

Overall impression: basic

- inadequate knowledge and understanding of the possible link between sleep deprivation and overweight and obesity
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to discuss this theory
- quality of written communication is basic

Mark Band ([4]–[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of the possible link between sleep deprivation and overweight and obesity
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to discuss this theory
- 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 possible link between sleep deprivation and 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 discuss this theory
- quality of written communication is very good to highly competent

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

- metabolism; sleep deprivation is related to a number of undesirable changes in metabolic activity, for example, levels of cortisol – the hormone involved in the response to stress – in the blood increase, the immune response is affected, the body's ability to handle glucose diminishes and appetite control suffers

- appetite; an association between short habitual sleep time and increased body mass index has been reported; short sleep was associated with changes in hormones that control hunger. Leptin levels (reducing appetite) were low, while ghrelin levels (stimulating appetite) were high
- time; some research indicates that a factor for obesity is that less time spent sleeping leaves more time available for eating and drinking
- cravings; one study found that sleep time of around four hours was associated with significantly greater craving for calorie dense foods with high carbohydrate content
- energy expenditure; sleep deprived people are less likely to be physically active, resulting in lower energy expenditure; this along with increases in appetite and food craving can contribute to weight gain

All other valid points will be given credit [10]

- (b) Explain why being overweight increases the risk of Type 2 diabetes and cardiovascular disease. (AO1, AO2, AO3)

Mark Band ([0]–[3])

Overall impression: basic

- inadequate knowledge and understanding of the relationship between weight and Type 2 diabetes and cardiovascular disease
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to explain why being overweight increases the risk of these two diseases
- quality of written communication is basic

Mark Band ([4]–[7])

Overall impression: reasonable to good

- reasonable to good knowledge and understanding of the relationship between weight and Type 2 diabetes and cardiovascular disease
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to explain why being overweight increases the risk of these two diseases
- 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 relationship between weight and Type 2 diabetes and 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 explain why being overweight increases the risk of these two diseases
- quality of written communication is very good to highly competent

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

- Type 2 diabetes
 - Type 2 diabetes is associated with insulin resistance. Insulin is an important hormone that delivers glucose to cells. Being overweight causes the cells in the body become less sensitive to the insulin that is released from the pancreas
 - there is some evidence that fat cells are more resistant to insulin than muscle cells. If a person has more fat cells than muscle cells, then the insulin becomes less effective overall, and glucose remains circulating in the blood instead of being taken in to the cells to be used as energy

- cardiovascular disease
 - people who are overweight tend to have a higher total blood cholesterol level, high LDL cholesterol and high triglyceride levels causing atherosclerosis
 - overweight people are more likely to have high blood pressure which increases risk of CVD
 - central obesity; increases likelihood of CVD due to pressure on the heart, there is also higher risk of high cholesterol levels and insulin resistance
 - being overweight also contributes to angina

All other valid points will be given credit

[10]

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Section A

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Section B

AVAILABLE
MARKS

- 3 Examine talking treatments and complementary therapies as possible treatments for mental illness. (AO1, AO2, AO3)

Mark Band ([0]–[5])

Overall impression: basic

- inadequate knowledge and understanding of talking therapies and complementary therapies
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to examine these therapies as possible treatments for mental illness
- quality of written communication is basic

Mark Band ([6]–[10])

Overall impression: adequate to minimally competent

- adequate to minimally competent knowledge and understanding of talking therapies and complementary therapies
- demonstrates adequate to minimally competent ability to apply knowledge and understanding to the question
- demonstrates adequate to minimally competent ability to examine these therapies as possible treatments for mental illness
- 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 talking therapies and complementary therapies
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to examine these therapies as possible treatments for mental illness
- quality of written communication is reasonable to good

Mark Band ([16]–[20])

Overall impression: very good to highly competent

- clear knowledge and understanding of talking therapies and complementary therapies
- 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 examine these therapies as possible treatments for mental illness
- quality of written communication is very good to highly competent

Some examples of suitable points to be commented on by the candidate:

Talking treatments

- talking; patients are encouraged to talk through the problems associated with their mental illness with the aim of improving their quality of life and managing the symptoms of their illness, for example, looking at ways to manage negative thinking that can lead to depression. These therapies can be used on their own or with other medication for mild to moderate mental health problems such as depression and anxiety
- cognitive behavioural therapy (CBT); can help the patient change how they think and what they do. It focuses on the problems and difficulties rather than the cause of the distress. Can be useful for those with mild to moderate mental illnesses as well as more severe illnesses such as schizophrenia
- psychodynamic psychotherapy; the client is encouraged to talk about their childhood relationships and experiences to help the person understand how experiences in the past can unconsciously affect their behaviour and thinking. This type of therapy can be very intensive and can take a long time to feel results
- counselling; patient talks to a trained counsellor about a specific problem with the aim of helping them understand their problem more clearly and come up with their own solutions to deal with these difficulties. The role of the counsellor is to listen and be non judgemental, providing a safe and confidential environment for discussion

Complementary therapies

- holistic approach; the use of complementary therapies is in line with a more holistic approach to treating patients. There is little research available to test how these therapies work, but some patients find them relaxing and helpful and report feeling better as a result
- physical treatments; e.g. massage, aromatherapy, acupuncture, reflexology, yoga. These can all help with anxiety, stress and relaxation. They can also help with the physical side effects of medication
- unconventional medicines; these can be used alongside medication and their use should be discussed with a doctor. Examples include homeopathic remedies and herbal medicines such as St John's Wort linked to the relief of mild to moderate depression
- meditation; particularly useful for those with anxiety and stress, it involves sitting quietly and focusing the mind on either breathing or a mantra or an object. The effect of this is to reduce the breathing rate, blood pressure and muscle tension associated with tension and stress

All other valid points will be given credit

[20]

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- 4 Summarise the rationale for the Food and Nutrition Strategy for Northern Ireland 1996. (AO1, AO2, AO3)

Mark Band ([0]–[5])

Overall impression: basic

- inadequate knowledge and understanding of the rationale for the Food and Nutrition Strategy for Northern Ireland 1996
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to summarise this rationale
- 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 rationale for the Food and Nutrition Strategy for Northern Ireland 1996
- demonstrates adequate to minimally competent ability to apply knowledge and understanding to the question
- demonstrates adequate to minimally competent ability to summarise this rationale
- 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 rationale for the Food and Nutrition Strategy for Northern Ireland 1996
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to summarise this rationale
- 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 rationale for the Food and Nutrition Strategy for Northern Ireland 1996
- 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 summarise this rationale
- quality of written communication is very good to highly competent

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

- coronary heart disease; a food and nutrition strategy is necessary to help reduce incidence of CHD. Dietary factors include fat, especially saturated fat and trans fatty acids and their effect on blood cholesterol levels as well as intakes of non-starch polysaccharide (NSP), antioxidants, sodium, potassium and alcohol
- cancers; a third of all cancers can be attributed to diet. Five main dietary components influence the development of cancer – fat, NSP, antioxidants, fruit and vegetables, alcohol
- hypertension; reducing blood pressure levels reduces the risk of CHD and stroke. There are four dietary factors which affect blood pressure – sodium, potassium, weight and alcohol
- weight problems; adults and children are affected by overweight and obesity in Northern Ireland. Obesity also increases the risk of ill health and death from respiratory disease, raised blood pressure, Type 2 diabetes, gall bladder disease and some cancers
- dental decay; in Northern Ireland dental decay is worse than most other areas of the United Kingdom. The Food and Nutrition strategy includes advice on intake of sugary foods and non-milk extrinsic sugars as these are the main causes of dental decay
- osteoporosis; some studies have suggested that higher calcium intakes (from dairy products) are associated with the achievement of a higher peak bone mass, which in turn reduces the risk of osteoporosis
- iron deficiency and anaemia; iron deficiency anaemia is reported as the most common nutritional deficiency in both developing and developed countries
- neural tube defects (NTDs); in Northern Ireland the incidence of NTD is higher than the United Kingdom average. Increased intake of folic acid/folate before conception and until the end of the twelfth week of pregnancy helps prevent first-time occurrence and recurrence of NTDs

All other valid points will be given credit

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- 5** According to the World Health Organisation, more than 30% of cancers could be prevented by modifying or avoiding key risk factors.

Consider this statement. (AO1, AO2, AO3)

Mark Band ([0]–[5])

Overall impression: basic

- inadequate knowledge and understanding of the link between cancer prevention and key risk factors
- demonstrates a limited ability to apply knowledge and understanding to the question
- demonstrates a limited ability to consider these factors in relation to cancer prevention
- 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 link between cancer prevention and key risk factors
- demonstrates adequate to minimally competent ability to apply knowledge and understanding to the question
- demonstrates adequate to minimally competent ability to consider these factors in relation to cancer prevention
- 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 link between cancer prevention and key risk factors
- demonstrates a reasonable to good ability to apply knowledge and understanding to the question
- demonstrates a reasonable to good ability to consider these factors in relation to cancer prevention
- 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 link between cancer prevention and key risk factors
- 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 these factors in relation to cancer prevention
- quality of written communication is very good to highly competent

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

Being overweight or obese

- breast cancer; a large European study into diet and cancer found that obese postmenopausal women were three times more likely to get breast cancer than those who were not obese or overweight. This may be because breast cancer is sensitive to levels of oestrogen. After the menopause, the main source of oestrogen is from body fat. The more body fat present, the higher the levels of oestrogen in the body
- bowel cancer; obesity slightly increases the risk of bowel cancer (about 10%). This risk is greater for men than for women. Some research suggests that where the fat is stored influences the risk of bowel cancer — the larger your waist measurement the greater your risk
- womb cancer; overweight women have higher levels of oestrogen, as fat cells help to produce oestrogen. The more oestrogen there is, the more the lining of the womb builds up. The more endometrial cells that are produced, the greater the chance of one of them becoming cancerous. Overweight, increases the risk of insulin resistance. Some studies show that the extra insulin may encourage cancerous cells to grow in the lining of the womb

Low fruit and vegetable intake

- cancer sites; there is moderately strong evidence that colorectal and stomach cancers are fewer in communities where there is a high intake of fruit and vegetables. There is also some evidence for a protective effect against breast, lung and oesophageal cancers and a probable effect against prostate, cervical, pancreatic and bladder cancers
- antioxidant nutrients; fruit and vegetables provide substances that have an antioxidant effect such as selenium, zinc, copper, iron, vitamins C and E, beta carotene, lycopene, polyphenols and flavonoids Antioxidants prevent oxidative damage to the DNA by free radicals and may inhibit the activation of carcinogens in the body
- non-starch polysaccharide (NSP); fruit and vegetables are a source of NSP. High levels of NSP in the diet can lead to increased bulk and therefore faster transit time through the colon. As a result, potentially harmful carcinogenic substances are present in a more dilute form and are in contact with the colonic mucosa for a shorter time. This may provide protection against colon cancer

Physical activity

- colorectal cancer; studies have consistently found that adults who increase their physical activity, either in intensity, duration, or frequency, can reduce their risk of developing colon cancer by 30 to 40 per cent relative to those who are sedentary regardless of body mass index BMI. Physical activity may protect against colon cancer and tumour development through its role in energy balance, hormone metabolism, insulin regulation, and by decreasing the time the colon is exposed to potential carcinogens. Physical activity has also been found to alter a number of inflammatory and immune factors, some of which may influence colon cancer risk
- breast cancer; most studies indicate that physically active women have a lower risk of developing breast cancer than inactive women; high levels of moderate and vigorous physical activity during adolescence may be especially protective. Although a lifetime of regular, vigorous activity is thought to be of greatest benefit, women who increase their physical activity after menopause may also experience a reduced risk compared with inactive women

Alcohol

- cancers of the aerodigestive tract; there is an association between consumption of alcohol and cancers of the mouth, throat and oesophagus. Alcohol makes it easier for dangerous chemicals such as tobacco to be absorbed in the mouth and throat
- liver cancer; alcohol can cause cirrhosis of the liver by repeatedly damaging the liver's cells which can increase the risk of liver cancer
- breast cancer; alcohol consumption, above a moderate level has also been shown to be associated with a rise in breast cancer as alcohol can increase the levels of oestrogen

Smoking

- tobacco smoke contains cancer causing chemicals, these can damage DNA and change important genes. This causes cancer by making cells grow and multiply out of control
- smokers have the highest risk of all cancers compared to non-smokers

[20]

Section B

Total

AVAILABLE
MARKS

20

40

60