

GCE AS

**Health and
Social Care**

January 2010

Mark Schemes

Issued: April 2010

**NORTHERN IRELAND GENERAL CERTIFICATE OF SECONDARY EDUCATION (GCSE)
AND NORTHERN IRELAND GENERAL CERTIFICATE OF EDUCATION (GCE)**

MARK SCHEMES (2010)

Foreword

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 16- and 18-year-old 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 a 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.

The Council hopes that the mark schemes will be viewed and used in a constructive way as a further support to the teaching and learning processes.

CONTENTS

	Page
AS 3: Unit 3	1
AS 5: Unit 5	17
AS 14: Unit 14	29



Rewarding Learning

ADVANCED SUBSIDIARY (AS)

General Certificate of Education

January 2010

Health and Social Care

Assessment Unit AS 3

assessing

Unit 3: Health and Well-being

[A3H31]

FRIDAY 15 JANUARY, MORNING

**MARK
SCHEME**

- 1 (a) Use the table below to identify one example of each type of need for older people and to explain how it could be met in a residential care home.
(AO1, AO2)

A physical need.

[1] for any of the following:

- Adequate diet
- Medication
- Mobility needs
- Warmth
- Rest and sleep
- Personal hygiene

(1 × [1])

[1]

How the need could be met.

[1] for key phrase/s, [2] for fuller explanation of how the need identified could be met in a residential setting. Explanation must be clearly linked to the need identified, e.g. need for an adequate diet could be met by providing older people with nutritious balanced meals and providing them with choices which will encourage them to eat well.

(1 × [2])

[2]

An intellectual need.

Example

[1] for any of the following

- Mental stimulation
- Language needs
- Understanding of own situation
- Knowledge

(1 × [1])

[1]

How the need could be met.

[1] for key phrase/s, [2] for fuller explanation of how the need identified could be met in a residential setting. Explanation must be clearly linked to the need identified, e.g. language needs could be met by providing information to residents in sign language or through the use of interpreters for older people whose first language is not English.

(1 × [2])

[2]

An emotional (psychological) need.

Example

[1] for any of the following

- Feeling of security
- Need for respect
- Spiritual/religious needs
- Feeling cared for/emotional support
- Need to express feelings
- Sense of autonomy

(1 × [1])

[1]

How the need could be met.

[1] for key phrase/s, [2] for fuller explanation of how the need identified could be met in a residential setting. Explanation must be clearly linked to the need identified, e.g. need for respect could be met by staff asking residents about their needs and listening to their opinions.

(1 × [2]) [2]

A social need.

Example

[1] for any of the following

- Need for contact with family
- Need for interaction with staff and other residents
- Need for friendships
- Need for contact with the wider community

(1 × [1]) [1]

How the need could be met.

[1] for key phrase/s, [2] for fuller explanation of how the need identified could be met in a residential setting. Explanation must be clearly linked to the need identified, e.g. need to see friends could be met by having open visiting.

(1 × [2]) [2]

- (b) A range of socio-economic factors affects the health and well-being of individuals. Explain **one** way each of the following can affect an individual's **physical** health and well-being. (AO1, AO2)

Gender

[1] for key phrase/s, [2] for fuller explanation of any one of the following ways:

- Women are the biggest users of the health care facilities, largely because of their roles as child-bearers and child-rearers so they tend to look after their physical health better than men
- Women live longer than men but women have higher rates of morbidity
- Gender affects the type of illnesses or diseases that people get, e.g. heart disease is the biggest killer of individuals of both genders but the number of men that die is double that of women. Males are more likely to get bladder cancer than women, whilst breast cancer is the second highest killer of women and affects only small numbers of men
- Men are more likely to have accidents, e.g. motor vehicle traffic accident is the second highest killer among men
- Men are more likely to have active and outdoor jobs which may have a positive impact on physical health and well-being. However, many jobs men commonly do are more likely to have a negative impact on physical health, e.g. accidents at building sites or lung problems from working in an unhealthy environment
- Men are less likely to access services at the early stage of a problem, e.g. testicular cancer is often detected late

(1 × [2]) [2]

Income

[1] for key phrase/s, [2] for fuller explanation of any one of the following ways:

- People with a higher income have a longer life expectancy. This is because they can afford a better diet and live in better conditions so are less likely to get illnesses
- People with higher incomes may be able to access specialist health services more quickly by paying privately or because they have been able to afford private health insurance
- People who have low incomes have greater stress and are more prone to illnesses
- Older people who live in poverty have a three to four times greater risk of having a physical dysfunction
- Breast cancer is shown to be more frequent in women who earn more. This is probably because of delayed childbearing due to their careers, as this is a major risk factor. However, women with high incomes are more likely to survive the disease, probably due to being able to afford better care and to better living standards
- Smoking is more prevalent amongst people on low incomes; smoking causes more health problems like cancer and respiratory problems
- Male life expectancy is on average seven years longer amongst those on higher incomes
- People on low incomes may work long hours to increase their incomes, this leaves less time to visit the doctors if they are ill. They are more likely to be in jobs where there is little flexibility for getting away for appointments
- People with low incomes often live in industrial areas that have levels of pollution that cause illness. In contrast those with higher incomes can afford to live outside of built-up areas where there is less pollution
- People on lower incomes may be less able to afford healthy diets – may rely more on cheaper processed foods which may lead to obesity
- People on higher incomes may be more able to access facilities which contribute to health and fitness, e.g. private gymns, swimming pools, complementary therapies

(1 × [2])

[2]

Housing

[1] for key phrase/s, [2] for fuller explanation of any one of the following ways:

- Houses that have damp, condensation, and mould growth can lead to asthma, bronchitis and arthritis
- Houses that lack adequate heating can cause respiratory illnesses, cardiovascular problems and, in extreme cases, death from hypothermia
- Overcrowded housing can lead to the spread of illness or disease
- Poor housing conditions can be a source of stress and therefore linked to stress-related physical illnesses
- Housing with no outside space can reduce opportunities for physical activity, meaning that children may be slower to develop gross motor skills and may be less fit
- Poorly designed and maintained houses may be associated with an increased risk of falls and other accidents

(1 × [2])

[2]

Ethnicity

[1] for key phrase/s, [2] for fuller explanation of any one of the following ways:

- Belonging to a particular ethnic group can be associated with increased risk of suffering from a particular disease or condition, e.g.
 - All ethnic minority groups apart from Irish and Chinese are at higher risk of diabetes
 - Asian men are more at risk of angina and heart attack than other men
 - Afro-Caribbean and Pakistani women from low income groups are more likely to be obese which has a negative impact on physical health
 - Irish people drink more than other groups and therefore are more likely to suffer from alcohol related illnesses like liver problems
- All ethnic minority groups, apart from Irish and Black Caribbean, are less likely to take part in physical activity than others in the UK population – this impacts on fitness levels
- People from ethnic minorities may find it more difficult to access health services because of language or cultural barriers and so may have poorer physical health as a result
- Some physical conditions are associated with particular ethnic groups, e.g. sickle cell anaemia is exclusive to the black population
- Some aspects of culture may have a positive impact on health, e.g. not drinking alcohol means less chance of liver problems, some cultures eat very healthy diets

(1 × [2])

[2]

- (c) Discuss how the ageing process can affect the physical, social and psychological health and well-being of an individual. (AO1, AO2, AO3)

Physical health and well-being

[1] for use of key phrase/s, [2] for adequate discussion, [3] for detailed discussion.

Answers may address some of the following points:

- More prone to fractures due to the bones becoming lighter and more brittle (osteoporosis)
- Muscle become weaker and less flexible; they can also become painful
- The eye loses elasticity making it difficult to focus and can lead to visual disturbances
- Hearing may also be impaired
- The heart becomes less efficient, therefore pumps less blood around the body reducing filtration from the kidneys
- The muscles of the diaphragm become weaker resulting in shallow breathing
- Muscles in alimentary canal become weaker and so makes digestion less efficient
- Most older people have at least one chronic condition, the most common are:
 - Arthritis
 - Hypertension
 - Hearing impairments
 - Heart disease
 - Cataracts
 - Impairments of the legs, hips, back or spine

- May be less likely to be physically active or may tire more easily
 - Reproductive system changes, e.g. menopause
- (1 × [3]) [3]

Social health and well-being

[1] for use of key phrase/s, [2] for adequate discussion, [3] for detailed discussion.

Answers may address some of the following points:

- Alzheimer's disease – affecting interaction with friends and family
- Due to the decline in mobility individuals may find it difficult to take part in certain hobbies which they once enjoyed
- The chances of an individual becoming depressed are increased, this could also affect them socially as they may not feel like interacting
- When older people retire their social circle may decrease as they may lose touch with friends and colleagues they had at work or due to death of friends
- Retirement can give people more time for family and friends and to engage in new hobbies where they meet others

(1 × [3]) [3]

Psychological health

[1] for use of key phrase/s, [2] for adequate discussion, [3] for detailed discussion.

Answers may address some of the following points:

- The risk of dementia is increased as people get older; this leads to severe memory loss and can affect an individual's self-esteem and sense of worth
- Older people are more prone to suffer with depression due to low self-esteem and possibly due to loss and bereavement
- Life events such as deaths of a partner or child, loss or change of job, financial crisis and major illness increase stress
- Many older people have a sense of fulfilment, looking back on a positive life
- May be less stressed due to retirement
- May experience fear and anxiety about death
- May feel disempowered/lack of autonomy due to illness or disability
- May feel like a burden if dependent on others
- May experience a range of negative emotions, e.g. sadness, loneliness

(1 × [3]) [3]

29

- 2 (a) (i) Explain two ways the World Health Organisation (WHO) contributes to health and well-being. (AO1)

[1] for use of key phrase/s, [2] for full explanation or use of example.

- Combats disease by organising vaccination programmes, e.g. for measles
- Provides statistics on the spread of disease across the world, e.g. AIDS
- Co-ordinates health promotion activities globally, e.g. to combat obesity, to boost consumption of fruits and vegetables worldwide, or to discourage tobacco consumption
- Provides information on health risks globally, e.g. risk of SARS and how to avoid it

- Conducts or funds research, e.g. into health effects of mobile phone use
- Makes recommendations about health behaviour, e.g. one WHO report recommended that sugar be no more than 10 percent of a healthy diet
- Monitors the health status of developing countries
- Facilitates emergency aid, e.g. at request of UN
- Sets international standards, e.g. for food and pharmaceutical products
- Raises awareness of global health problems, e.g. media releases about outbreaks of disease
- Produces policies on health that governments can share

(2 × [2])

[4]

- (ii) Explain two **different** ways the Department of Health and Social Services and Public Safety for Northern Ireland (DHSSPSNI) contributes to health and well-being.

[1] for use of key phrase/s, [2] for full explanation or use of example

- Introduces policy and strategy relevant to health and well-being, e.g. 'Investing in Health'
- Monitors the health of population by looking at trends in disease, e.g. numbers diagnosed with HIV and AIDS
- Attempts to ensure service provision meets the needs of the population, e.g. adequate provision in terms of hospitals, GPs, and social services
- Advise on medical, nursing, dental, pharmaceutical and social work matters
- Develops appropriate spending plans for the delivery of health and social services, e.g. budgets for health and social care trusts
- Sets targets for the delivery of health and social services in Northern Ireland, e.g. waiting times for ambulances
- Raises awareness of health issues and supports health promotion, e.g. by providing information on their website and conditions like swine 'flu

(2 × [2])

[4]

- (b) Write down the names of two **other** statutory organisations that contribute to health and well-being. (AO1)

[1] for each of the following:

- National Health Service (NHS)
- Health Promotion Agency (HPA)

(2 × [1])

[2]

- (c) Analyse how each of the following approaches could be applied in health promotion campaigns to reduce binge drinking amongst young people. (AO1, AO2, AO3, AO4)

Educational approach

Mark Band 1 ([0]–[2])

Overall impression: basic understanding

- Displays limited understanding of how the educational approach could be applied in a health promotion campaign to reduce binge drinking amongst young people

- Answers may describe the approach without applying it to binge drinking
- There is little or no evidence of analytical writing
- Quality of written communication is basic

Mark Band 2 ([3]–[4])

Overall impression: adequate knowledge and understanding

- Displays adequate understanding of how the educational approach could be applied in a health promotion campaign to reduce binge drinking amongst young people
- There must be some application to binge drinking to score in this band
- There is some evidence of analytical writing
- Quality of written communication is good

Mark Band 3 ([5]–[6])

Overall impression: competent knowledge and understanding

- Displays very good understanding of how the educational approach could be applied in a health promotion campaign to reduce binge drinking amongst young people
- There must be clear application to binge drinking to score in this band
- There is clear evidence of analytical writing
- Effective written communication

Answers may include:

- This approach aims to provide information and knowledge so individuals can make informed choices about their health behaviour, e.g. information on what constitutes appropriate levels of alcohol consumption
- This approach might be applied by health educators providing information to groups of young people in schools or colleges, e.g. statistics on alcohol related crime or accidents

Use of fear arousal

Mark Band 1 ([0]–[2])

Overall impression: basic understanding

- Displays limited understanding of how the use of fear arousal approach could be applied in a health promotion campaign to reduce binge drinking amongst young people
- Answers may describe the approach without applying it to binge drinking
- There is little or no evidence of analytical writing
- Quality of written communication is basic

Mark Band 2 ([3]–[4])

Overall impression: adequate knowledge and understanding

- Displays adequate understanding of how the use of fear arousal approach could be applied in a health promotion campaign to reduce binge drinking amongst young people
- There must be some application to binge drinking to score in this band
- There is some evidence of analytical writing
- Quality of written communication is good

Mark Band 3 ([5]–[6])

Overall impression: competent knowledge and understanding

- Displays very good understanding of how the use of fear arousal approach could be applied in a health promotion campaign to reduce binge drinking amongst young people
- There must be clear application to binge drinking to score in this band
- There is clear evidence of analytical writing
- Effective written communication

Answers may include:

This approach attempts to gain the target audience's attention by showing them frightening images or statistics in an effort to change their behaviour, e.g. a TV advertising campaign showing young women in a very vulnerable state due to excess alcohol consumption

(2 × [6])

[12]

- (d) Another approach that could be used is the empowerment approach. Evaluate this approach to health promotion using the following headings. (AO1, AO4)

Strengths

[1] for use of key phrase/s, [2] for full explanation of any two strengths

- People feel they are making decisions for themselves because they choose to address the issue – makes them feel proud of themselves if they make changes
- Helps people to identify their own concerns and to address them – good targeting of need
- Is a bottom up approach – gives the power to the individual or group, is client centred and makes people feel in control
- Health is seen as the property of the individual, not just the government's concern

Weaknesses

[1] for use of key phrase/s, [2] for full explanation of any two weaknesses

- Only really works with those who are motivated enough to want to make changes
- Depends on clients having good skills, motivation or leadership in the first instance to have confidence to consider concerns
- It is a long-term approach – not effective if change is desired sooner rather than later as it tends to focus on individuals and small groups
- Difficult to quantify or measure changes in behaviour using this approach – individuals or groups may request and access information and advice but not act upon it or may falter when support of health promotion professional is withdrawn

(4 × [2])

[8]

- (e) Analyse the impact of alcohol misuse on all aspects of health and well-being of young people. (AO1, AO2, AO3, AO4)

Mark Band 1 ([0]–[4])

Overall impression: basic understanding

- Displays limited knowledge of the potential impact of alcohol misuse on the health and well-being of young people
- Answers may focus on only one aspect of health and well-being (physical, psychological or social)

- There is little or no evidence of analytical writing
- Quality of written communication is basic

Mark Band 2 ([5]–[8])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of the potential impact of alcohol misuse on the health and well-being of young people
- There must be reference to at least two aspects of health and well-being (physical, psychological, social) to score at the top of this band
- There is some evidence of analytical writing
- Quality of written communication is good

Mark Band 3 ([9]–[12])

Overall impression: competent knowledge and understanding

- Displays very good to excellent knowledge of the potential impact of alcohol misuse on the health and well-being of young people
- There must be reference to all three aspects health and well-being (physical, psychological, social) to score in this band
- There is clear evidence of analytical writing
- Effective written communication

Answers may include the following:

Impact on **physical** health and well-being

- Alcohol misuse has short-term physical effects, e.g. dizziness, nausea, vomiting, hangovers, headaches, blurred vision
- Alcohol abuse can lead to a whole variety of health problems in young people, e.g. inflammation of the pancreas, internal bleeding, weakening of the heart. The organ of the body most at risk from excess alcohol is the liver: young people can suffer liver failure and even death
- Alcohol can also lead to death or injury due to risk taking behaviour, e.g. drink driving or accidents – many of these accidents are caused by young people who aren't necessarily dependent on alcohol, but are temporarily intoxicated. Risk taking can impact on other aspects of physical health, e.g. increased risk of STIs
- Alcohol can lead to deterioration of the nervous system – young people who drink heavily can suffer from loss of balance, numbness of the feet and hands, and tremor
- Alcohol is high in calories and causes weight gain, but may also be associated with loss of appetite or weight loss

Impact on **social** health and well-being

- It is well known that aggressive and criminal behaviour and the consumption of alcohol are linked – nearly half of the young offenders of sexual offences, burglaries, street crime and crimes in pubs and clubs have been found to be intoxicated
- Many young people who abuse alcohol find that their relationships with friends and family break down due to their problem and they no longer have social support from them
- Young people may find it hard to get jobs or lose their jobs or fail at school if their performance, attendance and timekeeping are affected by hangovers
- May spend most of their money on alcohol so that they can't afford other social activities, e.g. meals out, the cinema

Impact on **psychological** health and well-being

- Excessive alcohol can cause brain damage leading to problems with memory and with information processing
- Young people who misuse alcohol may feel shame and guilt because of their drinking and the problems it causes, which can lead to low self-esteem and even self-loathing
- Alcohol is often associated with feelings of anger, which can range from being touchy and irritable to explosive, violent outbursts
- Anxiety is common in young people who abuse alcohol regularly, e.g. not trusting others and even paranoia
- Young people who abuse alcohol regularly may also develop depression, ranging from feeling very down and helpless to being suicidal
- May become addicted to alcohol – feel they can't cope without it

[12]

AVAILABLE
MARKS

42

3 (a) Define the following terms. (AO1)

Discrimination

[1] for use of key phrase/s, [2] for full explanation

Answers may include:

- Unfair treatment based on gender, race, sexuality etc. – may be direct or indirect
- Unfair treatment of a person based on prejudice and intolerance
- Denying an individual or group of individuals the same rights as everyone else enjoys, e.g. not providing access to a cinema for disabled people

Health

[1] for use of key phrase/s, [2] for full explanation

Answers may include:

- Health means different things to different people, but it is generally agreed that there is more than one dimension to health – physical, social, emotional, mental, spiritual, environmental (any three of these will gain two marks)
- Health is a positive concept that suggests well-being as opposed to illness or disease
- Health is the absence of disease/“not just the absence of disease” (WHO)
- Health can be influenced by lifestyle factors

(2 × [2])

[4]

- (b) Discrimination in the NHS can have a major impact on the health and well-being of patients, resulting in deteriorating health and even death. Explain two **other** ways discrimination in the NHS might impact on the health and well-being of clients.

[1] for use of key phrase/s, [2] for full explanation of any two of the following:

- Clients may feel disempowered
- Clients may feel marginalised/excluded/isolated/alienated
- Clients' self-esteem may be shaped/reshaped in a negative way
- Clients may feel unhappy/angry/threatened/hurt
- Clients may lose their appetites or have problems sleeping
- Mental health may be adversely affected, e.g. become depressed
- Clients may become withdrawn
- Clients may feel they are a burden
- Clients may start to believe negative things about themselves – feel worthless
- Clients may discriminate against others because they see it as appropriate
- Treatment may be less effective or discontinued
- Clients may suffer stress and its symptoms due to breakdown in communication with staff or refusal to accept treatment

(2 × [2])

[4]

- (c) Mencap is a voluntary organisation which supports people with learning disabilities by publishing research reports like the one referred to above. Discuss three other ways a voluntary organisation could contribute to the health and well-being of clients with learning disabilities. (AO1, AO2, AO3)

Mark Band 1 ([0]–[3])

Overall impression: basic understanding

- Displays limited knowledge of how a voluntary organisation could contribute to the health and well-being of clients with learning disabilities
- There is little or no evidence of analytical writing – candidates may list ways rather than discuss or may discuss only one way in some detail
- Quality of written communication is basic

Mark Band 2 ([4]–[6])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of how a voluntary organisation could contribute to the health and well-being of clients with learning disabilities
- There is some evidence of analytical writing and more than one way must be discussed to achieve in this band and at the top of this band at least two ways must be discussed in some detail
- Quality of written communication is good

Mark Band 3 ([7]–[9])

Overall impression: competent knowledge and understanding

- Displays good to excellent knowledge of how a voluntary organisation could contribute to the health and well-being of clients with learning disabilities
- There is clear evidence of analytical writing to achieve in this band and at the top of this band all three ways must be discussed in detail
- Effective written communication

Answers may include the following points:

- Provide a range of services, e.g. respite for parents or day centres for older adults with learning disabilities
- Source of education, training and employment support, e.g. help adults with learning disabilities to develop numeracy, literacy and other skills and may find work placements
- Provide information and advice, e.g. about benefit entitlement for adults with learning disabilities or information on educational support for parents of children with learning disabilities
- Provide advocacy, e.g. support an individual with learning disabilities to access appropriate health care or to gain access to day care
- Provide support with day to day living, e.g. run a befriending scheme where volunteers go shopping or out for social activities with an individual with learning disabilities
- Raise awareness of the needs of people with learning disabilities, e.g. run a campaign to encourage anti-discriminatory practice such as an anti-bullying campaign or to promote inclusion in the workforce
- Lobby government to improve the lives of people with learning disabilities, e.g. try to persuade MPs to provide and finance better services or to improve legislation to prevent discriminatory practice
- Provide emotional support, e.g. for families through helplines, for people with learning disabilities through befriending schemes
- Provides opportunities for social interaction, e.g. through day centre, youth club

(3 × [3])

[9]

- (d) Discuss **four** measures an NHS manager could take to promote anti-discriminatory practice in a hospital setting.
(AO1, AO2, AO3, AO4)

Mark Band 1 ([0]–[4])

Overall impression: basic understanding

- Displays limited knowledge of how an NHS manager could challenge attitudes and prejudices that may lead to discriminatory practices in a hospital setting
- There is little or no evidence of analytical writing – candidates may list ways rather than discuss or may discuss only one way in some detail
- Quality of written communication is basic

Mark Band 2 ([5]–[8])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of how an NHS manager could challenge attitudes and prejudices that may lead to discriminatory practices in a hospital setting
- There is some evidence of analytical writing and more than one way must be discussed to achieve in this band and at the top of this band at least three ways must be discussed in some detail
- Quality of written communication is good

Mark Band 3 ([9]–[12])

Overall impression: competent knowledge and understanding

- Displays very good to excellent knowledge of how an NHS manager could challenge attitudes and prejudices that may lead to discriminatory practice in a hospital setting
- There is clear evidence of analytical writing to achieve in this band and at the top of this band all four ways must be discussed in detail
- Effective written communication

Answers may include the following points:

- Have a complaints policy to encourage patients to complain about anti-discriminatory practice – clear lines of responsibility for dealing with reports
- Encourage staff to use whistle-blowing procedures to report others who engage in discriminatory practices
- Make sure staff know about and understand Patients' Charter of Rights
- Have forums for discussion for staff so that issues around positive practice may be discussed – have an open door policy so that staff feel comfortable calling in to talk to a manager about concerns
- Supervise inexperienced staff
- Promote the care value base
- Deal robustly with complaints and reports – use disciplinary procedures
- Set a good example in own practice, e.g. respect religions practice
- Directly challenge staff and patients when incidents occur and use disciplinary procedures when required
- Promote advocacy, e.g. encourage use of Patients' Advocate and translators where appropriate
- Make use of client feedback relating to anti-discriminatory practice, e.g. suggestion boxes
- Staff training in anti-discriminatory practice

- Have an equal opportunities policy/ anti-discriminatory policy and promote it in the hospital
- Implement legislation like the Disability Discrimination Act, e.g. improve physical access, have information available in a variety of formats

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid [12]

Total

AVAILABLE MARKS
29
100



Rewarding Learning

ADVANCED SUBSIDIARY (AS)

General Certificate of Education

January 2010

Health and Social Care

Assessment Unit AS 5

assessing

Unit 5: Adult Client Groups

[A3H51]

MONDAY 11 JANUARY, AFTERNOON

MARK SCHEME

1 (a) Explain the following terms (AO1, AO2)

Advocate

[1] for use of key phrase/s [2] for full explanation or where an example is used appropriately to help explain

Answers may include:

- To speak on behalf of a client or group of people
- To represent a client
- To promote the rights of self advocacy or others, citizen or group advocacy
- To ensure a client's wishes or feelings are considered

(1 × [2])

[2]

Empowerment

[1] for use of key phrase/s [2] for full explanation

Answers reflect the following:

- Enabling a person or a group of people to speak on their own behalf
- Supporting a person or a group of people to take actions on their own behalf
- Sharing relevant knowledge and/or expertise with individuals or groups so that they can make informed decisions
- Involvement of clients and carers in the planning and/or decision-making processes regarding the services they use
- To give clients power to be involved in or make decisions which affect them
- Principles of working in total partnership with clients and of sharing or handing over power traditionally held by professionals
- Development of needs-led client-centred services

Candidate may use examples other than those above – these may be accepted if the candidate shows an understanding of the overall meaning of the terms.

(1 × [2])

[2]

(b) Write down **four** stages of the care planning cycle (AO1)

[1] each for any four of the following –

- Assessment
- Planning
- Implementation
- Monitoring
- Evaluating review
- Modifying

(4 × [1])

[4]

- (c) Explain **two** different ways each of the following services may contribute to Mary's care (AO1, AO2)

Occupational therapy

[1] for use of key phrase [2] for full explanation of each way identified

Any **two** of the following should be **explained** for [4] to be awarded:

- Provides needs assessment of clients
- Supports and teaches clients skills needed for maximum independence
- Assesses clients' homes and identifies need for adaptations
- Provides aids and adaptations, e.g. special cutlery, hand rails, bath rails
- Liaises with multi-disciplinary team
- Designs individualised programmes to promote independence
- Contributes to research
- Teaches dressing practice
- Does activities with clients, e.g. art therapy
- Contributes to the care planning process
- Writes reports

(2 × [2])

[4]

Domiciliary (home) care

- Domiciliary services includes any service delivered to clients in their home, e.g. "meals on wheels", visits from professionals
- Services provided in client's home, including personal care, fire lighting, meal preparation, collecting pensions/benefits, helping clients to get up and dressed in the morning and prepare for bed at night (marks can be awarded for two of these)
- Improves client's quality of life and enables them to live independently
- Support Mary's family, enabling them to care for her at home
- Liaise with social workers and other health professionals if there are any changes in the client's condition or health and social care needs
- May give Mary medication based on instructions of healthcare professional

(2 × [2])

[4]

All other valid points will be given credit

[0] is awarded for a response not worthy of credit

- (d) Explain **two** ways staff in the hospital may meet Mary's physical needs (AO1, AO2, AO3)

[1] for use of key phrase/s [2] for full sentence/explanation of each way identified

Answers should address **four** of the following points:

- Ensure her diet is appropriate, adequate and to her liking
- Report any changes to the other members of the multidisciplinary team
- Keep accurate records
- Consult her about her sleep pattern and record and report the same
- Consult her about her bowel and bladder function and record and report the same
- Support daily living tasks – washing, toileting, dressing
- Encourage her to do daily exercises to maintain her muscle strength
- Temperature regulation, e.g. appropriate clothing
- Ensure she is in a safe environment
- Ensure mobility, e.g. that she has appropriate walking aids
- Treat her physical injuries to aid recovery
- Administer medication, e.g. for pain relief

(2 × [2])

[4]

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid.

(e) Explain **two** ways statutory organisations are funded. (AO1, AO2)

[1] for use of key phrase/s [2] for full sentence/explanation of each way identified

- Fundraising and donations
- Taxpayers/system of national taxation
- Funds are controlled by central government
- Chancellor of the exchequer identifies available funding which comes from taxpayers
- National Insurance Contributions
- Payments by clients, e.g. for meals

(2 × [2])

[4]

(f) Discuss how the social model of disability can enhance the care of clients such as Mary (AO1, AO2, AO3, AO4)

- Disability is socially constructed therefore if staff understand clients' needs they can challenge the system to ensure their care is centred on their individual needs and not just physical needs, which have been medically diagnosed
- Workers can ensure that health and social care services do not disadvantage clients by only focusing on what they cannot do rather than what they can do – supports and aids should be provided to enable clients to return home as it is rarely the “impairment” which disables people, rather society
- If staff/public are educated to understand how society can challenge the view that illness is the person's own problem then a better assessment and support service will be offered to clients

- Clients should be supported to follow chosen lifestyle, e.g. live at home
- Emphasis on need for empowerment of clients/patients to make their own choices re their care package
- Range of professionals are offered to meet clients' holistic needs – may include psychological therapies, alternative therapies, group work
- Clients/patients such as Mary are not to be labelled as “too old” to care for themselves forced to go into institutional care
- People with disabilities such as Mary have a right to be treated as normal and to have services designed in such a way as to facilitate their needs

Mark Band 1 ([0]–[2])

Overall impression: basic understanding

- Displays limited knowledge of how the social model of disability enhances the care provided for clients
- Little or no evidence of analytical writing
- Quality of written communication is basic

Mark Band 2 ([3]–[5])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of how the social model of disability enhances the care provided
- Some evidence of analytical writing
- Quality of written communication is good

Mark Band 3 ([6]–[8])

Overall impression: competent knowledge and understanding

- Displays a very good knowledge of how the social model of disability enhances the care provided for clients
- Good evidence of analysis
- Very effective written communication

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid. [8]

32

2 (a) Explain the following term (AO1)

[1] for use of key phrase/s [2] for full explanation or where an example is used appropriately to help explain

Prejudice

- Preconceived ideas about a person based on attitudes and beliefs which lead to discriminatory behaviour and practice
- Involves the use of stereotypes to try to explain or categorise particular groups in society
- Most prejudices are based on things that people cannot change, such as skin colour, birthplace, appearance, gender, disability, etc.

(1 × [2])

[2]

- (b) Explain **three** ways discrimination may affect people with disabilities (AO1, AO2)

[1] for use of key phrase/s [2] for full explanation

Answers may include:

- May result in low self-esteem
- May make clients feel isolated/lonely/marginalised
- Clients may not want to go out
- May cause client to self harm
- May affect their recovery/health may deteriorate/may become suicidal
- May cause them to become angry or violent
- May affect their ability to build relationships with others
- May cause them to abuse substances – drugs/alcohol
- May discourage them from accessing services
- Can affect life chances, e.g. employment
- May be physically injured, e.g. broken limb
- May experience stress
- May be frightened, e.g. of going out alone
- May become determined to fight discrimination
- May feel disempowered/lack autonomy or sense of control

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid.

(3 × [2])

[6]

- (c) Explain **three** ways voluntary organisations such as Scope may be funded (AO1, AO2)

[1] for use of key phrase/s [2] for full explanation

Answers may include:

- Fundraising events – sponsored walks, coffee mornings, charity shops
- Street collections/flag days
- Commercial sponsorships
- Contracts with government agencies
- Donations made by individuals, companies or churches
- Bequests/wills
- Lottery funding
- Payment by clients, e.g. luncheon clubs, counselling
- Government grants

Maximum [6]

(3 × [2])

[6]

- (d) Residential care homes for disabled people are often provided by the private or voluntary sectors. These homes are regularly inspected to check that care workers are adhering to legislation, policies and procedures. Discuss **three** consequences of care workers failing to do so (AO1, AO2, AO3)

[1] for use of key phrase/s [2] for explanation [3] for fuller discussion of each consequence.

Answers may include:

- Clients may be abused or exploited or put at risk
- Funding may be abused and therefore may not be enough to meet needs
- Accidents may be more likely to happen in organisations which are not scrutinised
- Needs of clients may not be met – consequences for health and well being
- Staff may not be trained appropriately
- Standards of care may be poor
- Discrimination may occur
- Policies may not exist therefore confusion among staff about what they are trying to achieve
- May be less reliable so care may not always be available
- Because service is not regulated charges can be very high – cause debt for clients
- Less likely for abuse/unfair treatment to be brought to the attention of the public
- Confidentiality may be breached
- Staff may be disciplined and could lose their jobs
- Legal proceedings may be taken
- Staff could be de-registered
- Care home could be closed
- Home may lose its reputation
- Lack of trust between carers and staff

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid.

(3 × [3])

[9]

- (e) Discuss how the Disability Discrimination Act 1995 has contributed to improving the lives of people with disabilities (AO1, AO2, AO3, AO4)

Mark Band 1 ([0]–[4])

Overall impression: basic understanding

- Displays limited knowledge of the contribution of the DDA to improving the lives of people with disabilities
- Little or no evidence of analytical writing
- Quality of written communication is basic

Mark Band 2 ([5]–[8])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of the contribution of the DDA to improving the lives of people with disabilities
- Some evidence of analysis
- Quality of written communication is good

Mark Band 3 ([9]–[12])

Overall impression: competent knowledge and understanding

- Displays a very good knowledge of the contribution of the DDA to improving the lives of people with disabilities
- Good evidence of analysis
- Very effective written communication

Answers may address some of the following:

- Provides a route for redress – e.g. compensation if discrimination occurs in the workplace
- Raises awareness of difficulties faced by client group and promotes their rights
- Promotes equality for disabled people and prevents unfair treatment, e.g. in buying or renting property and in accessing goods and services
- Prevents unfair treatment in employment
- Prevents unfair treatment in education
- Promotes inclusion of disabled people, e.g. through improved accessibility of buildings
- Helps to reduce stigma and stereotypical attitudes towards disabled
- Improves perception of disabled people, e.g. makes them more accepted and improves self-confidence
- Promotes sense of empowerment among disabled people, can choose to access public transport independently
- Promotes staff training in anti-discriminatory practice
- Lead to policies and procedures that employees and staff must adhere to

This list is not exhaustive and candidates may use examples other than those identified above – these may be accepted if they are relevant and valid.

[12]

35

- 3 (a) Use examples to discuss how health and social care workers can apply the following principles of the Care Value Base in their work with adult clients (AO1, AO2, AO3)

[1] for key phrase/s, [2] for explanation, [3] for fuller discussion of each of the following:

Promote client's rights and choices

- By following legislation, codes of practice, policies and national standards within the workplace health and social care workers will ensure the client's rights are upheld
- Rights may include examples of the following and candidates may give examples of how these rights are applied:
 - The right to be different
 - Freedom from discrimination
 - A right to independence and choice
 - Respect and dignity
 - Safety and security
 - Confidentiality
 - Choice
 - Effective communication
- Advocacy; right to have an advocate
- Effective relationships; right to establish or maintain relationships with staff, family, friends
- Role boundaries; right to ensure workers are doing the job expected of them regarding provision of health and social care to clients
- Needs and resources; right to have their needs met, e.g. to socialise, go on outings
- Challenging when others' rights are not met
- Informing clients of their rights, e.g. Charter
- Involving clients in the care planning process

Respect individual's identities and beliefs

- Acknowledging a person's beliefs is a key part of accepting them as a person; relate closely to an individual's perception of who they are – their identity; examples of how health and social care workers may do this such as ensuring people attend relevant religious or cultural events that are important in their lives
- Showing respect for an individual's lifestyle choices and enabling people to make their own choices regarding how they live their lives; this has an impact on the individual's level of self-esteem
- An individual's belief system will influence their thoughts and ideas about a range of matters: their expectations of, and goals, in life; attitudes to society; religion; lifestyle; view of self; child rearing practices; examples how health and social care workers apply this principle to these areas will be accepted
- In these situations the health and social care worker must:
 - Respect the other person's views and give them the opportunity to discuss issues when necessary

- Show support and care through listening skills, body language and by making constructive comments
- Recognise the person's beliefs are central to their view of themselves and supporting them in expressing religious and cultural beliefs that are important to them
- Promote individual identity, e.g. using preferred name shows an interest in that individual's life story, respecting personal possessions

Promote effective communication

- Care worker should build supportive relationships
- Ways of developing effective relationships through communication
 - Introduce themselves – find out clients' names, how they want to be addressed
 - Talk to clients at **their** level of understanding and avoid being patronising
 - Convey warmth, interest and take time to listen
 - Show empathy
 - Encourage the clients to talk about their wishes and needs
 - Greet clients at the beginning of a shift and say goodbye at the end
- Provide clients with relevant information and encourage them to be involved in decision-making, e.g. information about treatment choices, join clubs
- Make use of communication aids where appropriate
- Have information in a range of formats
- Keep records and inform other staff of clients' needs
- Learn basic phrases in client's native language
- Communicate for clients as an advocate
- Appropriate use of non-verbal communication skills
- Use the expertise of a speech therapist to aid communication
- Use translator where appropriate
- Care workers should encourage clients to communicate with one another

(3 × [3])

[9]

- (b) Analyse **four** advantages of adult clients being cared for at home by informal carers. (AO1, AO2, AO3, AO4)

Mark Band 1 ([0]–[4])

Overall impression: limited understanding

- Displays limited knowledge and understanding of the advantages of adult clients being cared for at home by informal carers
- Limited, if any, attempt to analyse the advantages of adult clients being cared for at home by informal carers
- Quality of written communication is basic

Mark Band 2 ([5]–[8])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge and understanding of the advantages of adult clients being cared for at home by informal carers
- Evidence of at least three advantages to achieve at this band
- Some evidence of analysis
- Quality of written communication is good

Mark Band 3 ([9]–[12])

Overall impression: competent knowledge and understanding

- Displays a very good knowledge and understanding of the advantages of adult clients being cared for at home by informal carers
- Evidence of at least four advantages to achieve in this mark band
- Good evidence of analysis
- Very effective written communication

Answers may address some of the following points:

- Carers may feel fulfilled/rewarded and provide loving care/quality care
- Adult clients can remain in their own home – feel safe and secure
- Care provision is more likely to be consistent
- Adult clients are familiar with their own setting and this can reduce confusion
- Adult clients can retain independence
- Adult clients can retain regular contact with family and friends – clients are likely to be happier
- Adult clients are being looked after by people they know and love – feel valued and loved, able to discuss problems, less embarrassed in a trusting relationship
- Informal carers perform a range of tasks to meet a variety of needs
- Personal attachment of carers leads to greater understanding of the needs leading to better quality of carer
- Informal carers do not have the pressure of going to visit their loved one in a home each day/they can see them whenever they want
- Adult clients' benefits can be used more creatively to provide for home care and support for informal carers
- Reduces cost for government
- May be more financially feasible for client
- Greater flexibility, e.g. carers available 24/7 [12]

- (c) Discuss the strengths and weaknesses of the private sector providing health and social care services (AO1, AO2, AO3, AO4)

Mark Band 1 ([0]–[4])

Overall impression: very basic understanding

- Displays limited knowledge of provision of care by the private sector
- Answers that focus on either strengths or weaknesses (but not on both) remain in this band
- Little or no evidence of analytical writing
- Quality of written communication is basic

Mark Band 2 ([5]–[8])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of provision of care by the private sector
- Both strengths and weaknesses must be included to achieve in this mark band
- Some evidence of analytical writing
- Quality of written communication is good

Mark Band 3 ([9]–[12])

Overall impression: competent knowledge and understanding

- Displays a very good knowledge of the provision of care by the private sector
- Clear evidence of analytical writing
- Very effective written communication

Strengths

- Reduces NHS waiting lists
- Allows people who want to spend their own money on their health to do so – gives people the right to spend their own money as they wish
- Means that people with health concerns don't need to depend on referral from GP, etc. to be seen – quick entry and treatment and greater privacy
- Greater choice for clients
- Good for the economy
- Higher levels of funding may improve standards, e.g. attractive environments, highly paid staff, quality of treatment
- Flexibility is improved, e.g. appointment times
- Competition may drive up standards
- Reduces costs for government

Weaknesses

- Increases the gap between the rich and the poor – creates a two tier society
- Emphasis for private sector may be on profit not best treatment for clients – may lead to closure if unprofitable; unreliable
- Gives power to professionals – clients may be open to exploitation
- May not be as well regulated as statutory sector, leading to poor standards, e.g. environment, care, staff training
- Stigma attached to those who cannot afford private care
- May not be available to some clients who live in rural areas/access problems
- Can be very expensive, e.g. clients may be forced to spend savings which were intended for retirement
- Competition may lead to closures in statutory sector
- NHS may have to pick up the pieces, e.g. provide aftercare or cover for mistakes
- Paying twice – as people have already paid for their health care through the tax system
- Long waiting lists – condition could deteriorate while waiting for treatment

[12]

Total

AVAILABLE
MARKS

33

100



Rewarding Learning

ADVANCED SUBSIDIARY (AS)

General Certificate of Education

January 2010

Health and Social Care

Assessment Unit AS 14

assessing

Unit 14: Understanding Human Physiology

[A3H81]

MONDAY 1 FEBRUARY, AFTERNOON

MARK SCHEME

1 The human body is made up of cells which are specialised to help them perform their functions.

(a) Identify cells A, B and C in the table below and write down **one** function and specialisation of each. (AO1, AO2, AO3)

One mark for each correctly named cell, function and specialisation

Cell	Name	Function	Specialisation
A	Sperm Cell	Reproduction	Long tail to aid motion
B	Nerve Cell accept motor neurone	Conduction of nerve impulses	Long dendrites branching out in all directions to capture nerve messages
C	Striated/Skeletal Muscle Cell	Voluntary movement	Layers of muscle fibres overlapped to allow contraction and relaxation Under nervous control

(9 × [1])

[9]

(b) Discuss how each of the following substances produced by the digestive system aids digestion. (AO1, AO2, AO3)
[1] for a key phrase, [2] for explanation, [3] for detailed discussion of each of the following.

Answers may include:

Saliva

- Moistens the food
- This aids swallowing
- Contains the enzyme amylase
- Amylase breaks down starch

Bile

- Bile pours into the duodenum via the bile duct
- It neutralises stomach acid
- It emulsifies fats into droplets
- This aids digestion
- Bile is not an enzyme and does not break down substances

Gastric juice

- Is acidic
- It helps destroy germs
- It provides an acid environment which stomach enzymes need to work
- It contains the enzyme pepsin which breaks down proteins

(3 × [3])

[9]

(c) Jasper has undergone liver function tests. Results indicate he may have cirrhosis of the liver. (AO1)

(i) Identify **one** cause of cirrhosis of the liver.

Answers may include any one of the following:

- Alcohol abuse
- Hepatitis C infection
- Drug abuse

(1 × [1])

[1]

(ii) Write down **two** symptoms of cirrhosis that Jasper may have experienced.

Answers may include any two of the following:

- Tiredness
- Weakness
- Sick stomach/nausea
- Weight loss
- Yellow skin/eyeballs/jaundice
- Loss of appetite
- Itchy skin
- Medication intolerance
- Oedema of legs/abdomen

(2 × [1])

[2]

(iii) The liver is an important organ, carrying out a number of functions. Discuss **two** functions of the liver which aid digestion. (AO1, AO2, AO3)

[1] for key phrase, [2] for explanation, [3] for detailed discussion.

Answers may include:

Deamination:

- The liver detoxifies the blood via the hepatic portal vein
- It removes the waste products of digestion
- Ammonia produced via protein digestion is converted to less toxic urea

Glucose storage:

- The liver stores glucose as glycogen
- When necessary it reconverts glycogen to glucose for energy

(2 × [3])

[6]

27

2 This is a diagram of the human brain.

- (a) Write down the name and **one** function of parts A, B and C. (AO1, AO2)
[1] for each correct name and [1] for each correct function

A: Medulla Oblongata

Function: Control of basic life functions such as:

- Breathing
- Heartbeat
- Blood pressure

B: Hypothalamus

Function: Control of:

- Moods
- Temperature regulation
- Hormonal body processes
- Water balance

C: Cerebellum

Function: Control of:

- Balance
- Posture
- Cardiac and respiratory centres
- Fine motor skills

(6 × [1])

[6]

- (b) Jamal, aged 53, and his wife Deepak, live in a three storey house on the outskirts of Belfast and drive into the city each day to work in their shop. They travel to England regularly to visit their son and daughter and to buy stock for the shop. Jamal has recently suffered a stroke.

- (i) Explain the physiological cause of a stroke. (AO2)
[1] for key phrase, [2] for full explanation

Answers may include:

- Blood supply is cut off to part of the brain
- Lack of oxygen/nutrients causes damage to brain cells which cannot be repaired
- Artery blockage
- Link to cholesterol
- Blood clot
- Narrowing of the arteries

* Must make reference to **brain***

(1 × [2])

[2]

- (ii) Discuss how the nervous system normally performs voluntary actions. (AO1, AO2, AO3)
[1] for phrase, [2] for discussion, [3] for full discussion.

Answers may include:

- Sensory receptors detect a stimulus
- A nerve message is sent along a sensory neurone to the brain
- The brain determines a response

- A nerve message is sent from the brain via a motor nerve to muscles to elicit the required response
 - This could be explained using the example given in the scenario
- (1 × [3]) [3]

(iii) Analyse the extent to which having a stroke may affect Jamal's lifestyle. (AO1, AO2, AO3, AO4)

Mark Band 1 ([0]–[4])

Overall impression: basic understanding

- Displays a limited understanding of how having a stroke may affect Jamal
- Analyses some of the consequences of the stroke on Jamal's lifestyle correctly
- Quality of written communication is basic

Mark Band 2 ([5]–[8])

Overall impression: adequate knowledge and understanding

- Displays some knowledge and understanding of how having a stroke may affect Jamal
- Analyses most of the consequences of the stroke on Jamal's lifestyle correctly
- Quality of written communication is good

Mark Band 3 ([9]–[12])

Overall impression: competent knowledge and understanding

- Displays a sound knowledge and understanding of how having a stroke may affect Jamal
- Analyses the consequences of the stroke on Jamal's lifestyle accurately and in depth
- Effective written communication

Answers may include:

- Jamal may be partially paralysed following his stroke
- Jamal's balance may be affected
- Jamal's speech may be affected
- He may have to spend time having treatment/therapy to aid his recovery
- He may be unable to drive his car
- He may be unable to work in his shop
- He may have to pay other people to run his shop for him
- He may find this frustrating
- He may experience feelings of worthlessness
- He may be unable to travel on business or to visit his children
- He may find it difficult to move about his home especially if it has stairs
- He may have to move house or consider adaptations to his home
- His wife may have to take on a more dominant role in business
- She may find this difficult as she is also Jamal's main carer
- Jamal may have to pay for extra care/support
- Jamal may have difficulty swallowing
- He may not want to socialise as much as before
- He may feel uncomfortable eating out and so not want to travel as much

- He may consider selling his business and retiring
- He may consider moving to be nearer his children as a source of support
- His children may move back home to support their parents
- He may find support through self help groups
- This could provide him with new interests
- This may compensate for his reduced role in his business
- Healthier diet linked to stroke, e.g. reducing fat/cholesterol

However, if Jamal's stroke is mild:

- He may make an almost complete recovery
- He may simply have to slow down a bit
- He may be able to get a car to suit his needs and remain mobile
- He may continue in his business but in a reduced capacity

On the other hand:

- Jamal may refuse to reduce his work load
- He feels that it is his role to provide for his family
- Overworking could bring on another more serious stroke [12]

23

- 3 (a) Explain how each of the following parts contributes to the process of hearing. (AO1, AO2)
[1] for a key phrase [2] for a full explanation.

A The Ear ossicles

- These bones form a chain across the middle ear
- Sound vibrations are transmitted from the ear drum to the oval window via these bones

Do **not** accept to the cochlea

B The auditory nerve

- Picks up sounds as electrical impulses
- Transmits the impulses to the brain

C The cochlea

- Detects sound vibrations in the inner ear
- Converts these sounds to electrical impulses

(3 × [2])

[6]

- (b) Analyse the causes of hearing loss amongst the British population over the lifespan.

Mark Band 1 ([0]–[3])

Overall impression: basic understanding

- Displays a limited understanding of the causes of hearing loss over the lifespan
- Little or no evidence of analysis
- Quality of written communication is basic

Mark Band 2 ([4]–[6])

Overall impression: adequate knowledge and understanding

- Displays some knowledge and understanding of the causes of hearing loss over the lifespan
- Some evidence of analysis
- Quality of written communication is good

Mark Band 3 ([7]–[9])

Overall impression: competent knowledge and understanding

- Displays a sound knowledge and understanding of the causes of hearing loss over the lifespan
- In-depth analysis
- Effective written communication

Answers may include:

- This may be because of inherited conditions or problems at birth – including premature birth
- It can also result from the mother having rubella when pregnant
- In childhood the rate of deafness doubles due to conductive hearing loss, e.g. glue ear, damage to the ear drum or illness, e.g. measles which result in hearing loss
- With age there is a gradual loss of hearing among the population due to age-related hearing loss, e.g. otosclerosis (stiffening of ear ossicles)
- Mumps/measles as illnesses which can cause deafness
- Men in their forties may be more likely to lose hearing than woman because of occupational hazards
- These can cause sensorineural hearing loss – damage to cochlea
- Or conductive hearing loss – perforation of ear drum
- Young adults link to injury/loud noise/relevant illness [9]

AVAILABLE
MARKS

15

- 4 (a) (i) Write down the names of the glands A, B, C and D and one hormone produced by each. (AO1, AO2)
[1] for each gland and [1] for each correct hormone

A: Thyroid
Hormone: Thyroxin

B: Adrenal Cortex
Hormone: Adrenaline

C: Pancreas
Hormone: Insulin/Glucagon

D: Gonads/ovaries
Hormone: oestrogen/progesterone [8]

- (ii)** Explain two ways endocrine control differs from nervous control. (AO1, AO2)
[1] for a key phrase [2] for a full explanation.

Answers may include:

- Nervous control is fast/endocrine control slow
- Nervous control is via electrical impulses/endocrine control is chemical
- Nervous impulses travel along nerves to effector organs/hormones travel in the blood to effector organs
- Endocrine effects are long lasting

(2 × [2]) [4]

- (iii)** Explain why the pituitary gland (E) is often referred to as the master gland. (AO1, AO2)
[1] for a key phrase, [2] for a full explanation

Answers to consider:

- The pituitary gland controls other glands
- It releases hormones to stimulate other endocrine glands to release their hormones

[2]

- (b)** Maura is quadriplegic and attends a day centre with her friends Cyril and Sharon. Cyril is paraplegic and Sharon lost the use of one arm as a result of an accident at work.

- (i)** Explain the following terms:

A: quadriplegic

B: paraplegic

(AO1, AO2)

[1] for a key phrase, [2] for a full explanation

A: quadriplegic

Answers may include:

- Loss of movement in all four limbs
- Loss in movement below the neck
- Caused by damage to cervical spinal cord

B: Paraplegic

Answers may include:

- Loss of movement in lower limbs/legs
- Caused by damage to lower spinal cord
- Loss of movement below waist

(2 × [2]) [4]

- (ii)** Sharon has been told that in time she may regain some use of her arm. Maura and Cyril will not regain any limb movement. Discuss the reasons for this. (AO1, AO2, AO3)
[1] for phrase, [2] for discussion, [3] for full discussion

Answers may include:

- Sharon's injury is to the peripatetic nervous system
- Over time some of these nerves may regenerate
- This could give her some movement in her arm again

- Both Maura and Cyril's injuries are to the central nervous system
 - It is more unlikely that these nerves will regenerate
- (1 × [3]) [3]

- (iii) Cyril is urinary incontinent. Explain the cause of urinary incontinence. (AO1, AO2)
[1] for a key phrase, [2] for a full explanation

Answers may include:

- Pelvic floor muscles are weak and cannot keep the bladder closed
accept bladder muscles
 - The brain is sending incomplete messages to the bladder causing it to release inappropriately
 - Examples of causes: childbirth, stroke, paralysis
- (1 × [2]) [2]

- (iv) Discuss how the human body controls water balance when the kidneys are functioning normally. (AO1, AO2, AO3, AO4)

Mark Band 1 ([0]–[4])

Overall impression: basic understanding

- Displays a limited understanding of the mechanism of water balance control
- Describes some of the mechanism correctly
- Quality of written communication is basic

Mark Band 2 ([5]–[8])

Overall impression: adequate knowledge and understanding

- Displays some knowledge and understanding of the mechanism of water balance control
- Discusses most of the mechanism correctly or can discuss one half fully
- Quality of written communication is good

Mark Band 3 ([9]–[12])

Overall impression: competent knowledge and understanding

- Displays a sound knowledge and understanding of the mechanism of water balance control
- Discusses the mechanism accurately and in depth
- Effective written communication

Answers may include:

- Water balance in the body is controlled by a negative feedback mechanism
- Low levels of water in the blood are detected by receptors
- Detects high osmotic pressure
- Nerve messages are sent to the hypothalamus
- The hypothalamus stimulates the pituitary gland to produce ADH (anti diuretic hormone)
- This hormone increases water absorption in the kidneys
- This puts more water into the blood and produces concentrated urine
- If too much water is present in the blood, sensors in the heart signal the hypothalamus

- The hypothalamus signals the pituitary gland to reduce the amount of ADH being produced
Do **not** accept **NO** ADH is produced
- The lack of hormone ensures that the kidney absorbs more water
- More dilute urine is produced [12]

Total

**AVAILABLE
MARKS**

35

100