

**GCE AS**

**Health and  
Social Care**

**January 2009**

**Mark Schemes**

Issued: April 2009



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

**MARK SCHEMES (2009)**

**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.



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*Rewarding Learning*

**ADVANCED SUBSIDIARY (AS)**

**General Certificate of Education**

**January 2009**

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**Health and Social Care**

**Assessment Unit AS 3**

*assessing*

**Unit 3: Health and Well-being**

**[A3H31]**

**THURSDAY 15 JANUARY, MORNING**

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**MARK  
SCHEME**

**1 (a)** Explain **two** different functions of each of the following organisations (AO1)

National Health Service (NHS)

[1] for use of key phrase/s, [2] for fuller explanation of two ways

Answers may include:

- To diagnose illness/disease
- To fund treatment of illness/disease or free health care
- To provide hospital care and treatment
- To provide services, e.g. GP services
- To provide specialist medical and nursing care
- To promote healthy living, raising awareness of health issues
- Prevention of ill health, e.g. immunisations, screening
- To provide medication/prescriptions, e.g. for pain relief
- To provide information on illnesses and proposed treatments
- Conducts research

(2 × [2])

[4]

Department of Health and Social Services and Public Safety for Northern Ireland (DHSSPS NI) or Department of Health (DoH) and the Department of Social Services (DSS) in Great Britain

[1] for use of key phrase/s, [2] for fuller explanation of two ways

Answers may include:

- To provide advice on and provide benefit entitlements
- To introduce policy and legislation relevant to health and well-being
- To monitor the health of the population
- To ensure services, e.g. hospital, GP and social services meet the needs of the population
- Responsible for public safety
- To support health promotion and safety campaigns that raise awareness of health issues
- To advise on medical, dental, nursing, pharmaceutical and social work services
- To advise prison service on matters of public health
- To ensure provision of ambulance services
- To ensure appropriate spending plans
- To set standards and draw up strategies for service provision
- To publish information relevant to health and safety

(2 × [2])

[4]

- (b) (i)** The HPA is best known for running health promotion campaigns. With reference to **one** health promotion campaign you have studied, identify the health issue and write down two targets of the campaign. (AO1, AO2, AO3)

**Health issue**

Examples:

Smoking

Alcohol or drug misuse

Diet

Exercise

Accident prevention  
Hand washing  
Food poisoning  
Dental health  
Mental health

**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.**

Targets of the campaign  
[1] for each relevant target identified

Statistically precise targets are not necessary, award mark for descriptive targets, e.g. increase in, decrease in  
(2 × [1]) [2]

- (ii) Explanation **two different** ways the campaign promoted the issue  
[1] for use of key phrase/s, [2] for fuller explanation of each way

Answers may include:

- Provided information about the health issue, e.g. on a website
  - Used visual images the target group could relate to, e.g. posters, television advertisements
  - Used frightening images
  - Explained the consequences of behaviour
  - Gave advice on behaviour changes
  - Tried to affect the conscience of the target group
  - Provided statistics
  - Explained research results on the issue
  - Provided stories/narratives members of the target group could relate to
  - Tried to dispel erroneous information
  - Published literature, e.g. leaflets
  - Promoted events, e.g. local walks in the physical activity campaign
- (2 × [2]) [4]

- (c) Discuss each of the following approaches used by the HPA in health promotion campaigns (AO1, AO2)

**Social approach**

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

This approach acknowledges the importance of socio-economic conditions, e.g. housing, income in determining health. It is a top down approach with policy makers and health planners taking the lead – an example is the government's smoking ban.

(1 × [3]) [3]

**Empowerment approach**

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

This approach helps people to identify their own health concerns and to develop the skills and confidence to act upon them. It is a bottom-up approach, e.g. a women's group working with a health promoter on a smoking cessation programme.

(1 × [3])

[3]

- (d) Use the table below to evaluate the medical and educational approaches to health promotion. (AO1, AO2, AO3, AO4)

**Mark Band 1 ([0]–[4])**

Overall impression: basic understanding.

- Displays limited understanding of the strengths and weaknesses of the educational and/or medical approaches to health promotion
- Identifies four appropriate strengths and/or weaknesses anywhere on the grid – [4] awarded
- Quality of written communication is basic

**Mark Band 2 ([5]–[8])**

Overall impression: adequate knowledge and understanding.

- Displays adequate understanding of the strengths and weaknesses of the educational and/or medical approaches to health promotion
- Makes appropriate points on all sections of the grid or evaluates one approach well to achieve in this band
- Where only one approach is evaluated, a maximum of 6 marks may be awarded
- Quality of written communication is good

**Mark Band 3 ([9]–[12])**

Overall impression: competent knowledge and understanding.

- Displays good to excellent understanding of the strengths and weaknesses of the educational and medical approaches to health promotion
- Evaluates both the educational and medical approaches to health promotion to achieve in this band with at least two appropriate points in each section of the grid
- At the top of this band all of these points will be clearly argued and fully developed
- Effective written communication

Answers may include some of the following:

Medical approach

**Strengths**

- Often campaigns are based on medically sound scientific evidence so are convincing
- It is expert led – doctors and other medical workers are usually people the public feel they can trust with their health
- Has a history of success – successful smallpox vaccination programme
- Cost effective – it is cheaper to prevent disease than to treat it

**Weaknesses**

- Fear among public of side effects can put people off taking up immunisations, e.g. some people believe the MMR is linked to autism
- This approach ignores the holistic person – social and environmental factors are not considered
- This approach reinforces the “medicalisation” of life – pills and jabs are seen as the answers to health issues rather than seeing health as being about lifestyle and choices
- Encourages dependency on medical profession and treatment rather than individuals taking responsibility for their own health
- People may not attend appointments for immunisations or screening for various reasons, e.g. apathy, fear of medical interventions

## Educational

**Strengths**

- Delivers information that allows individuals to make informed decisions
- Can be delivered to a large group
- Can be time constrained, e.g. a health promotion activity on healthy eating run in a school or workplace for a week
- As information is given and not imposed, people feel they have been given a choice
- Can give something to target group to take away with them and read again
- Works well with groups who are used to having information delivered to them in this way, e.g. school pupils or people who have recently left education

**Weaknesses**

- Assumes target group can read and write
- Detailed information, e.g. statistics can be confusing and people may be turned off by it
- Individuals who have had negative experiences at school may not respond well
- Difficult to know if learning has taken place
- Won't work if target group do not want information – people can ignore it/not bother to read it
- People may feel that they are being lectured to and may not like it
- Giving people information is not necessarily enough to change their behaviour

[12]

32

- 2 (a) Mr Johnston feels he is being ignored by residents and treated differently by at least one member of staff. Explain **two** other ways Mr Johnston may have experienced discrimination as a result of his mental illness before coming to live at The Oaks. (AO1, AO2)

[1] for use of key phrase/s, [2] for fuller explanation for each of two different ways

Answers may include:

- May have been labelled as odd or even dangerous
- May have been called names, made fun of

- May have been refused employment or been treated unfairly in employment
- May have been denied access to services such as housing, shops or clubs and societies
- He may have been physically attacked or bullied
- His property may have been attacked, e.g. windows broken
- He may have been patronised or treated like a child, e.g. may not have been consulted in decisions about his care

(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.**

**(b)** Explain what is meant by the following (AO1)

Prejudice

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

Answers may include the following:

- attitude based on pre-judgements made about others which lead to discrimination
- attitudes, usually negative, which are often based on ignorance
- having stereotyped views

Stigma

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

Answers may include the following:

- social identity, how someone is viewed in society, often based on stereotypes or prejudice
- feeling or being labelled – labelling includes expectations of how a person will behave
- difference between how a person sees themselves (personal identity) and how others see them (social identity)

(2 × [2])

[4]

**(c)** Explain **three** different ways Mr Johnston's health and well-being could be affected by the prejudice and discrimination he is currently experiencing. (AO1, AO2)

[1] for use of key phrase/s, [2] for fuller explanation for each of three different ways

Answers may include the following:

- he could feel disempowered
- he could have low self-esteem/lack self-confidence/lack self-worth
- he may not be happy
- he may be angry/may become aggressive
- he may lose his appetite
- he may become withdrawn/socially isolated
- he may not be able to sleep

- he may become anxious and stressed
- he may experience paranoia
- he could leave the care home and so not receive the care he needs
- his depression may come back, perhaps even to the extent he feels suicidal

Also accept answers explaining the effect on his PIES development

(3 × [2])

[6]

**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.**

- (d) When Mr Johnston was suffering from depression in the past he received help from a voluntary organisation. Explain **two** different ways this organisation may have helped him. (AO1, AO2)

[1] for use of key phrase/s, [2] for fuller explanation for each of two different ways

Answers may include:

- May have provided care, e.g. a day centre, home care worker
- May have provided a range of services, e.g. transport, housing
- May have given advice about how to manage his depression
- May have provided a listening ear/counselling/emotional support
- May have given Mr Johnston the opportunity to meet others with similar problems – support group
- May have provided literature, e.g. leaflets on depression and about the help available
- May have provided advocacy services, e.g. to help with access to housing or health care

(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) Discuss **four** ways the care manager of The Oaks could effectively address prejudice and discrimination within the setting. (AO1, AO2, AO3, AO4)

### **Mark Band 1 ([0]–[4])**

Overall impression: basic understanding.

- Displays limited knowledge of how a care manager could effectively address prejudice and discrimination in a residential home like The Oaks
- May list rather than discuss up to four ways
- 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 how a care manager could effectively address prejudice and discrimination in a residential home like The Oaks
- May discuss fewer than four ways or may discuss some ways in more detail than others
- 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 how a care manager could effectively address prejudice and discrimination in a residential home like The Oaks
- All four ways must be discussed in detail to achieve at the top of this band
- There is clear evidence of analytical writing
- Effective written communication

Answers may include the following points:

- Organise staff training in anti-discriminatory practice, e.g. at induction
- Encourage residents to complain about discriminatory practice, e.g. inform them about complaints policy, put up posters
- Employment practices, e.g. ensure ratio of fully qualified and trained staff – qualified nurses, for example, are aware of the importance of anti-discriminatory practice
- Encourage staff to use whistle blowing procedures to report others who engage in discriminatory practices
- Make sure staff know about and understand Residents' Charter of Rights
- Have forums for discussion for staff
- Supervise inexperienced staff
- Promote the care value base – have a code of conduct for staff based on CVB, emphasising anti-discriminatory practice
- Encourage residents to give feedback/act on feedback from residents
- Deal robustly with complaints and reports
- Set a good example in own practice e.g. don't stereotype, offer choices
- Directly challenge staff and residents when incidents occur
- Acknowledge and celebrate a variety of cultures
- Make sure appropriate policies and procedures are in place

**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]

30

3 (a) Explain what is meant by the following concepts:

**Disease**

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

- Disease is a diagnostic label given to a set of signs and symptoms
- Disease is a condition or process which can affect the functioning of the body physically or mentally. For example Alzheimer's disease
- Disease is a state of being which is the opposite of health
- Disease is long-term
- Disease can be communicable or non-communicable
- Disease can result from injuries, accidents or infections

**Ill-health**

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

- A state in which an individual is unable to function normally and/or without pain
- Can be physical or mental, short-term or long-term
- Ill health may be about the presence of something negative like a disease or the absence of something positive like adequate nutrition

(2 × [2]) [4]

(b) Explain **two** different ways Sarah's good health may impact on her psychological well-being.

(AO1, AO2, AO3)

[1] for use of key phrase/s, [2] for fuller explanation for each of two different ways

Answers may include:

Sarah may

- Be happy/contented
- Have a positive self-concept/high self-esteem
- Feel confident
- Have a sense of control over life
- Feel emotionally secure
- Experience freedom from worry
- Feel less stressed

(2 × [2]) [4]

(c) Discuss how **regular exercise** may affect Sarah's physical and social health and well-being. (AO1, AO2, AO3)

**Her physical health and well-being**

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

Answers may include:

- Exercise makes the heart stronger and larger so it can pump more blood around the body and can sustain its maximum level with less strain. This lowers Sarah's risk of heart problems and improves circulation

- Exercise reduces obesity and prevents health problems like diabetes and strokes
- Exercise builds bone strength and prevents osteoporosis
- Exercise helps protect Sarah from developing cancers such as colon or breast cancer
- Sarah will be less likely to get colds and exercise will reduce her chance of having a stroke or developing osteoporosis
- Exercise tones the body, increases physical fitness
- Regular exercise in some cases may lead to injuries, e.g. team sports
- Exercise improves sleep patterns
- Exercise makes people more energetic and less sluggish or tired

### **Her social health and well-being**

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

Answers may include:

- If Sarah is exercising by playing team sports, this encourages relationships and co-operation with others
- Sarah may exercise in a social context, e.g. at a dance or exercise class where she can develop friendships
- Exercise may have a positive impact on Sarah's self-concept, giving her confidence in social situations
- In some cases exercise could negatively affect social well-being, e.g. if Sarah gets too involved with exercise and goes to the gym all the time, neglecting her relationships with others

(2 × [3])

[6]

- (d) Sarah is concerned that Jim will suffer from a smoking-related disease such as cancer. Discuss the potential effect that Jim's ill-health might have on the family's relationships and income.

### **Relationships**

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

Answers may include:

- Family members may argue due to stress and tension in the family caused by worrying about Jim if he becomes ill
- Family members may spend less time with their own friends due to Jim's ill health and this may cause them to lose contact with some of their friends
- Family members' relationships may break down, e.g. if Luke has to spend time helping to care for a sick parent he may be unable to sustain a relationship with a girlfriend
- Family relationships may become closer as they support each other in caring for Jim

### **Income**

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

Answers may include:

- If Jim had to leave work due to his illness he would have to depend on state benefits – linked to loss of income for the whole family
- Sarah might have to give up work or doing overtime because of her commitment to caring for Jim – the family may also experience this loss of income
- Opportunities to increase income for the family may be lost, e.g. neither parent may feel able to go for promotion at work due to the illness
- May be cost involved in accessing care, e.g. travel for treatment, high number of prescriptions to be paid for – this eats into the family's income

(2 × [3])

[6]

- (e) Discuss how each of the following socio-economic factors may affect an individual's **physical** health and well-being.  
(AO1, AO2, AO3)

### Education

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

Answers may include:

- Well-educated people are more likely to understand the need for healthy behaviours, e.g. healthy diet, the benefits of physical exercise, the dangers of smoking
- People with higher levels of education are likely to be in better paid jobs, so can afford to spend money on leisure activities that enhance physical health and well-being, e.g. gym membership, or on nutritious diets
- Mortality and morbidity rates are higher for those with lower educational achievement
- Schools can encourage sporting activities and healthy lifestyles, enhancing physical health and well-being

### Gender

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

Answers may include:

- Women are the biggest users of the health care facilities, largely because of their roles as mothers 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. Breast cancer is the second highest killer of women and affects only small numbers of men. Osteoporosis is more common in women
- Men are more likely to have accidents, e.g. motor vehicle traffic accidents are 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 seek early intervention in medical problems, e.g. testicular cancer often detected late

(2 × [3])

[6]

**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.**

- (f) Analyse the potential impact of smoking on Jim’s physical, social and psychological health and well-being

**Mark Band ([0]–[4])**

Overall impression: basic understanding.

- displays limited knowledge of the potential impact of smoking on Jim’s health and well-being
- may be no evidence of analytical writing
- quality of written communication is basic

**Mark Band ([5]–[8])**

Overall impression: adequate knowledge and understanding.

- displays adequate knowledge of the potential impact of smoking on Jim’s health and well-being
- to achieve in this band, at least two aspects of health and well-being must be addressed
- some evidence of analysis
- quality of written communication is good

**Mark Band ([9]–[12])**

Overall impression: competent knowledge and understanding.

- displays a very good knowledge of the potential impact of smoking on Jim’s health and well-being
- to achieve in this band answers must make reference to the impact on all three aspects of health and well-being – physical, social and psychological
- good evidence of analysis
- Effective written communication

Answers may address some of the following points:

**Effects on physical health and well-being:**

- Smoking could give Jim a smoker’s cough and other respiratory problems
- Smoking could negatively affect Jim’s sense of smell and taste
- Smoking may reduce Jim’s energy and stamina
- Smoking will increase Jim’s risk of getting cancer, especially lung cancer
- Smoking greatly increases his risk of heart disease
- Smoking affects physical appearance, e.g. makes the skin age quickly, with the earlier appearance of wrinkles and thinning of the skin, and causes discoloured teeth
- Reduces the ability to exercise

**Effects on social health and well-being:**

- Smoking makes the breath and clothes smell, which can be off-putting for other people in social situations and can make them feel that they don't want to be near the smoker
- Smoking can bring restrictions in social situations, e.g. it is not possible to smoke in cinemas or leisure centres and restaurants – this may limit the places Jim can go to socialise if he feels he cannot do without smoking
- Smoking is very expensive so Jim will have less money to socialise in other ways
- Smoking ban means smokers may gather outside venues and meet new people this way

**Effects on psychological health and well-being:**

- Smokers often feel like cigarettes are in control of them, rather than them feeling in control – Jim may experience a sense of powerlessness or feel stressed that he spends so much money on cigarettes
- Smoking also lowers self-esteem because individuals know it is very bad for them and continuing to do it makes them feel they don't value themselves properly
- As smoking is an addiction it is a strain on psychological well-being when people try to quit, e.g. the smoker may feel very tense and irritable
- Smokers often claim smoking calms them down, relieves stress and helps them to concentrate

[12]

AVAILABLE  
MARKS

38

**Total**

**100**





*Rewarding Learning*

**ADVANCED SUBSIDIARY (AS)**

**General Certificate of Education**

**January 2009**

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**Health and Social Care**

**Assessment Unit AS 5**

*assessing*

**Unit 5: Adult Client Groups**

**[A3H51]**

**FRIDAY 9 JANUARY, MORNING**

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**MARK  
SCHEME**

**1 (a)** Explain the following terms: (AO1)

## Vulnerable Adult

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

Answers may include:

- Adults considered vulnerable through “illness, frailty or disability”
  - Adult “in need” according to legal definition: this can include needs such as illness, mental health problems, physical disability, sensory impairment and learning disability
  - Adult “at risk” due to any form of actual or suspected abuse (“abuse” can include financial, institutional, physical, sexual, emotional and psychological abuse and neglect)
  - Person with complex health and social needs
  - Adults with particular need for protection as a result of disadvantage related to language, cultural or communication barriers
  - A person with a physical or mental health need which affects ability to carry out daily living activities
- (1 × [2]) [2]

## Minority Groups

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

Answers may include:

- A group of people with a common identity who may experience difficulties in having their needs addressed, e.g. clients with learning disabilities, clients with mental health problems, some elderly clients
  - People with a common culture which contrasts with that of the majority of the population, e.g. Chinese people living in Northern Ireland
- (1 × [2]) [2]

**(b)** Explain **two** different ways each of the following professional services contribute to the provision of care for clients such as Mr Cerowski (AO1, AO2)

## Physiotherapy

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

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

- Provides assessment of clients’ needs
- Supports mobility/helps people to walk again
- Prevents muscle wastage/builds strengths
- May use massage treatment, heat treatment, etc.
- Provides information and advice for families regarding how to support clients
- May do home visit to assess
- Provides aids, e.g. wheelchairs, walking frames etc.
- Liaises with multi-disciplinary team

- Provides individualized programmes of exercise
  - Develops confidence and provides encouragement regarding mobility
  - Improves breathing, e.g. teaching breathing techniques; removal of mucus
- (2 × [2]) [4]

GP

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

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

- Provides advice about health issues and problems
- Diagnoses
- Assesses/identifies clients' needs
- Is the gateway to a range of other services and professionals – referral
- Writes prescription for medication
- Provides treatment
- Listens to clients' concerns/counselling role
- Can do home visits
- Provides information to patients and their families about their condition and treatments/support groups
- Writes medical reports

(2 × [2]) [4]

- (c) Explanation three ways Mr Cerowski's communication needs may be met (AO1, AO2)

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

Answers may include any **three** of the following points:

- Through local advocacy service
- Ensure information is provided in suitable format
- Provide him with the picture cards to help indicate his needs
- Picture boards can be used by him
- Extra time can be spent with Mr Cerowski to try to understand what he is saying/listen to him/explaining his condition/reassuring him
- Professional, need to speak slowly and clearly
- Methods of non-verbal communication are developed
- Professionals could be encouraged to learn key phrases in Mr Cerowski's language
- Professionals could be encouraged to talk to his informal carers and consult about his needs
- Provision of a hearing aid
- By family and friends encouraging him to talk
- Provide translator
- Provides emergency contact system
- Encourage him to attend a day centre where he can develop new relationships and talk to people

(3 × [2]) [6]

**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**

- (d) Explain three ways Mr Cerowski's physical needs may be met (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 his diet is appropriate, adequate and to his liking/meals on wheels
- Report any changes to the other members of the multidisciplinary team
- Keep accurate records
- Consult him about his sleep pattern and record and report the same
- Consult him about his bowel and bladder function and record and report the same
- Support daily living tasks – washing, toileting, dressing
- Ensure he is in a safe environment
- Ensure he has appropriate mobility support walking aids
- Other aids and adaptations, e.g. shower facilities
- Provision of home care worker
- Provision of an emergency contact system within his home – pendant, bracelet
- Provision of medication, e.g. pain killers

(3 × [2])

[6]

**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 how the following services, which Mr Cerowski uses, may be funded (AO1, AO2)

[1] for use of keywords [2] for full explanation of any of the following

SSAFA (voluntary organisation)

- Fundraising events – sponsored walks, coffee mornings, street collections
- Commercial sponsorships
- Contracts with government agencies
- Donations made by individuals, companies or churches
- Bequests/wills
- Lottery funding

(1 × [2])

[2]

District Nurse (NHS)

- Government funded paid for via taxation
- Chancellor of Exchequer makes funds available that have been raised through taxation/national insurance contributions

(1 × [2])

[2]

- (f) If Mr Cerowski's neighbour supports him to live at home. Evaluate the role of informal carers in the provision of care (AO1, AO2, AO3, AO4)

**Mark Band 1 ([0]–[4])**

Overall impression: limited understanding

- Displays limited knowledge and understanding of the role of informal carers in the provision of care
- Limited, if any, attempted to evaluate the role of informal carers/only positive or negative aspects discussed
- Quality of written communication is basic

**Mark Band 2 ([5]–[8])**

Overall impression: adequate knowledge and knowledge and understanding

- Displays adequate knowledge and understanding of the role of informal carers in the provision of care
- Evidence of at least two positive and two negative points to achieve at the top of this band
- 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 role of informal carers in the provision of care
- Evidence of at least three positive and three negative points to achieve in this mark band
- Effective written communication

Answers may address some of the following points:

**Strengths**

- Carers may feel fulfilled/rewarded and provide loving care/quality care
- Clients can remain in their own home; reduces risk of infection
- Care provision is more likely to be consistent
- Clients are familiar with their own setting and this can reduce confusion
- Clients can retain independence
- Clients can retain regular contact with family and friends
- Clients are likely to be happier
- Clients are being looked after by people they know and love
- 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
- Clients will not have to pay for their care

**Weaknesses**

- Informal carers can feel isolated and unappreciated, affecting care provided
- Informal carers can feel trapped and experience stress, affecting care provided
- Informal caring can be very exhausting – often it is a 24 hour job – this can affect the quality of care
- Often informal carers do not get paid and can't work and those who do get very little compared to the volume of work they do – causing resentment – affecting quality of care
- Informal carers often untrained and so can sometimes cause harm inadvertently, e.g. moving and handling

- Informal carers can suffer in their own relationships and family life due to the responsibilities involved in caring – resentment can affect the caring relationship and quality of care
- Informal carers can suffer physically – they can become ill themselves – making clients feel guilty and affecting care delivery
- Client’s needs may not be met because they may not want to overburden the carer or they may be embarrassed to disclose needs
- Greater potential for abuse
- Extra support/services may not be accessed due to lack of awareness, affecting care provided
- Carers may lack medical expertise to allow them to care properly [12]

40

**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**

- 2 (a) Using the scenario, identify **two** ways Phoebe is experiencing discrimination  
Possible answers

- lack of consistency in her care
- she is not being enabled to achieve independence, e.g. driving
- not being offered realistic choices at the day centre
- negative comments by care workers

(2 × 1)

[2]

- (b) Write down **three** ways Phoebe may be affected by this discrimination  
(AO1, AO2)

[1] for each way identified from the following list:

- she may experience low self esteem/feel worthless
- she may feel disempowered/helpless
- she may feel marginalised/left out
- she may feel labelled
- she may feel a burden
- she may become upset/tearful/sad/hurt/annoyed
- she may become withdrawn/feel lonely
- she may lose her appetite
- her sleep pattern may be negatively affected
- she may feel annoyed/frustrated/stressed
- she may develop depression/experience mental health problems
- her condition may deteriorate
- she may not co-operate with staff – may refuse treatment
- she may lose trust in health care professionals
- her needs may not be met

(3 × [1])

[3]

**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**

- (c) Explain two ways adults clients such as Pheobe could be empowered.  
(AO1, AO2)

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

Answers may include the following:

Adult clients may be empowered by –

- allowing them to contribute to their own care plan
- ensuring they are treated in anti-discriminatory way
- encouraging them to make decisions
- providing information regarding their condition and services or treatments available to them
- giving clients responsibilities, encourages independence
- informing them of their rights
- promoting advocacy

(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**

- (d) Write down **three** advantages of services being provided by the statutory sector (i.e. Trust) for adult clients like Phoebe

[1] each for any **three** of the following:

- No payment required at point of delivery
- Staff properly trained/better quality care
- Specific needs can often be met
- More reliable than informal or voluntary services
- Equipment and resources more likely to be available
- Ease of referral to specialist treatments
- Multidisciplinary approach
- Service open to anyone; easily accessible
- Tends to be well regulated
- No stigma attached to using services

(3 × [1])

[3]

- (e) Explain **three** ways legislation contributes to improving standards of care for clients with disabilities (AO1, AO2, AO3)

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

Answers may include the following points:

- The law guides and informs practice
- The law provides a route for redress/sanctions
- The law informs clients about their rights
- The law raises awareness
- The law helps to prevent unfair treatment
- The law helps to improve access to care services and facilities, e.g. ramps

Answers must be linked to improving standards of care for [2] to be awarded (3 × [2]) [6]

AVAILABLE  
MARKS

**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**

- (f) The Carers and Direct Payment Act (NI) 2002/Carers Recognition Act 1995 aimed to give clients such as Pheobe more control over their care packages. Evaluate the effectiveness of this legislation. (AO1, AO2, AO3, AO4)

**Mark Band 1 ([0]–[3])**

Overall impression: basic understanding

- Displays limited knowledge and understanding of impact of Carers and Direct Payment Act (NI) 2002
- Limited, if any, attempt to evaluate the effectiveness of this legislation
- Only strengths or weaknesses may be discussed
- Quality of written communication is basic

**Mark Band 2 ([4]–[6])**

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge and understanding of impact of Carers and Direct Payments Act (NI) 2002
- Evidence of at least one positive and one negative points to achieve in this band
- Quality of written communication is good

**Mark Band 3 ([7]–[9])**

Overall impression: competent knowledge and understanding

- Displays a very good knowledge and understanding of impact of Carers and Direct Payments Act (NI) 2002
- Evidence of at least two positive and two negative points to achieve in this mark band
- Effective written communication

Answers may address some of the following points:

**Strengths**

- Direct payments allow money to be given to the service user to enable them to purchase their own support package following an assessment of their needs.
- Gives clients more choice of how they want to use payments to buy in their care, i.e. go to course in technical college rather than day centre, fund a course, driving lessons
- Allow clients more flexibility, i.e. who they employ, times when employees come to them
- Can expect a tailor made and more responsive service because they are in control
- Gives clients more freedom and convenience, e.g. Phoebe of being able to drive and she wants to be able to pursue her own interests
- Recognition of carers and their rights
- Carers can request support such as respite care

- Carers have the right to have an assessment of their own ability to provide care

### Weaknesses

- However, there are also responsibilities – the package of support will only be as good as the quality of the staff recruited, and therefore, it is important to become “good” employers and retain carers
- It will also be necessary to meet the Trust/local authority’s auditing requirements, for which support is provided
- Clients may be worried they cannot get carers or if carer sick they cannot replace them quickly
- Lack of services available for clients to buy into, therefore may become more isolated if does not use services provided by Trust/local authority
- Trusts may have a right to charge for services provided to carers
- Auditing process required by Trusts can be very stressful for clients
- Assessment of carers is not automatic, carer must request assessment
- Trusts may not be able to meet the identified needs of the carer, e.g. “unmet need”, therefore critics argue it is not effective
- Client applies for Direct Payments but may have to go onto waiting list to wait for allocation of money

All other valid responses will be given credit [9]

27

- 3 (a) Explain three ways professional codes of conduct contribute to the provision of quality care for adult clients (AO1, AO2)

[1] for use of key phrase or example [2] for full explanation of how it contributes to quality of care

Answers may address any **three** of the following points:

- Code of conduct sets standards – promotes good quality of care
- Code of conduct informs clients and their families about what they can expect to receive – allows action to be taken against poor practise
- Code of conduct regulates practice within a profession – promotes high standards
- Code of conduct informs and guides practice – promotes standards
- Failing to follow codes of conduct may lead to disciplinary action
- Code of conduct helps to promote fair treatment for all individuals
- Code of conduct improves the quality of care provided
- Code of conduct helps define roles and responsibilities of professional workers

Accept specific examples found in codes of conduct, e.g. confidentiality and anti-discriminatory practice. If linked to provision of quality care award [2]  
[0] for reference to CVB

(3 × [2]) [6]

(b) Discuss how the following **two** policies could enable care homes to protect older people and provide them with quality care (AO1, AO2, AO3)

(i) protection of vulnerable adults, policy

[1] for key phrase/s [2] for adequate discussion [3] for fuller discussion

- Helps carers to identify abuse
- Outlines procedures for reporting abuse
- Protects clients
- Promotes sense of security for clients/families
- Allows for legislation to be implemented
- Helps to prevent abuse
- Outlines procedures for vetting prospective staff

Answers given must be clearly linked to how policies enable care homes to protect older people and provide the best quality of care for [3] to be awarded

(ii) Staff training policy for [1] to be awarded

[1] for key phrase/s [2] for adequate [3] for detailed discussion

- Helps to ensure staff are appropriately qualified and informed
- Helps to ensure clients are cared for safely
- Keeps staff up to date with changes and developments
- Promotes quality care including anti-discriminatory practice
- Improves knowledge of policies and procedures, promoting rights, such as the right to safety
- Promotes confidence in carers and clients
- Fosters team spirit

(2 × [3])

[6]

(c) Discuss the role of the private sector in meeting the needs of adult clients groups (AO1, AO2, AO3, AO4)

### Mark Band 1 ([0]–[3])

Overall impression: basic understanding

- Displays limited knowledge of the role of the private sector in meeting the needs of adult client groups
- Limited discussion of the role of the private sector
- Quality of written communication is basic

### Mark Band 2 ([4]–[6])

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of the role of the private sector in meeting the needs of adult client groups
- At least two features of the private sector in meeting the needs of adult client groups should be discussed to meet at the top of this band
- Quality of written communication is good

**Mark Band 3 ([7]–[9])**

- Displays a very good knowledge of the role of the private sector in meeting the needs of adult client groups
- Detailed discussion – at least three features of the private sector discussed regarding meeting the needs of adult client groups to achieve at the top of this band
- Very effective written communication

Answers may include some of the following points:

- To provide clients with another route to services taking pressure off the statutory sector, e.g. private consultation, private hospitals instead of NHS, private residential care
- To provide quicker access to services, e.g. consultation, diagnosis and treatment
- To provide services in a flexible way to suit clients, e.g. after hours clinics
- To provide services that may not be available in the statutory sector, e.g. complementary therapies
- To provide clients with opportunities for choice, e.g. to insure their health, to choose where they live
- To provide clients with quality care and health services, e.g. new technologies

[9]

**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**

- (d) Evaluate the “mixed economy” approach to care provision (AO1, AO2, AO3, AO4)

**Mark Band 1 ([0]–[4])**

Overall impression: basic understanding

- Displays limited knowledge of the “mixed economy” approach to providing services for adult clients
- Little or no evidence of analytical writing – only strengths or only weakness may be discussed
- Quality of written communication is basic

**Mark Band 2 ([5]–[8])**

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of the “mixed economy” approach to providing services for adult clients
- At least two strengths and two weaknesses of the “mixed economy” to providing services for adult clients should be discussed to achieve at the top of this mark band
- Quality of written communication is good

**Mark Band 3 ([9]–[12])**

- Displays a very good knowledge of the “mixed economy” approach to providing services for adult clients
- Good evidence of analysis – more than three strengths and three weaknesses of the “mixed economy” approach to providing services for adult clients should be discussed to achieve in this mark band
- Effective written communication

Answers may address some of the following points:

Strengths of mixed economy of care

- Higher standards of care due to competition
- Greater choice for clients
- Greater flexibility
- Competition means better value for money
- Sense of community strengthened
- Allows social services to have a more focused role
- Less expensive for government
- Allows for development of specialism, e.g. Marie Curie providing cancer care

Weaknesses of mixed economy of care

- Service provision can be patchy
- Quality may be lowered as services outside the statutory sector are not as well regulated; staff may not be trained
- Increased costs – private needs to make a profit
- Dismantle the welfare state
- Clients using voluntary sector services may feel stigmatized
- Critics argue that clients who have paid tax and national insurance have the right to be cared for by state

[12]

33

**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**

**Total**

**100**

**AVAILABLE  
MARKS**



*Rewarding Learning*

**ADVANCED SUBSIDIARY (AS)**

**General Certificate of Education**

**January 2009**

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**Health and Social Care**

**Assessment Unit AS 14**

*assessing*

Unit 14: Understanding Human Physiology

**[A3H81]**

**TUESDAY 27 JANUARY, AFTERNOON**

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**MARK  
SCHEME**

1 Janey, aged three, has a sensorineural hearing loss. She has been admitted to hospital with a fever as she has had a number of febrile convulsions.

- (a) (i) Write down two causes of sensorineural hearing loss [1] (AO1)  
[1] for one correct cause

Any **two**

- genetic inheritance/“being born with it”
- loud noise trauma
- use of strong antibiotics
- some viral/bacterial infections, e.g. mumps

(2 × [1])

[2]

- (ii) Explain what is meant by a fever  
[1] For key phrase [2] for full explanation (AO1, AO2)

Answers may include:

- a high temperature
- over 37.5c at core (or 37c at surface)
- a temperature which the body cannot regulate itself

(1 × [2])

[2]

- (iii) Explain **one** way Janey’s health may be affected by febrile convulsions  
(AO1, AO2)

[1] For key phrase [2] for full explanation

Answers may include:

- risk is small if there is only one or few convulsions in a single illness
- if there is a family history of epilepsy or if the child has further convulsions in subsequent illnesses there is a slightly increased risk of developing epilepsy, risk of developing blackouts/seisures

(1 × [2])

[2]

- (b) This is a diagram of the skin.

Discuss how the three labelled structures in the diagram help control body temperature (AO1, AO2, AO3)

[1] For key phrase [2] for adequate discussion [3] for full discussion

Answers may include:

A Sweat gland – releases sweat as a liquid

- this cools the skin
- there is a heat loss as the liquid is evaporated off the skin surface

B Blood vessels – vasodilation of the blood vessels near the surface of the skin

- this opens the blood vessels wide
- blood flow through them is increased
- the skin takes on a red appearance
- heat is lost by radiation from the skin surface

- C Muscles [erector pili] of the hairs in the skin
- the muscles keep the hairs on the skin flat
  - this stops them from trapping air
  - there is less insulation of the skin
  - it is easier for heat to escape from the skin surface
- accept reverse argument  
(3 × [3])

[9]

15

2 (a) This is a diagram of the brain

- (i) Identify and describe one function of each of the parts labelled A, B and C (AO1, AO2)  
[1] For each part and [1] for one correct function for each part

Name	Function
A. medulla (oblongata)	controls autonomic function/ involuntary movement
B. cerebellum	controls balance/fine movement
C. thalamus	controls motor function interprets sensory signals/pain

(6 × [1])

[6]

- (ii) Part D, the pituitary gland, is found in the brain but is part of another system  
Identify the system to which the pituitary gland belongs (AO1)

Endocrine system

(1 × [1])

[1]

- (iii) Discuss the role of the pituitary gland in controlling body function (AO1, AO2, AO3)

**Mark Band 1 ([0]–[3])**

Overall impression: basic understanding

- Displays limited knowledge of the purpose of the pituitary gland
- Discusses one function of the gland
- Written communication is basic

**Mark Band 2 ([4]–[6])**

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of the purpose of the pituitary gland
- Discusses two functions of the gland
- Written communication is good

**Mark Band 3 ([7]–[9])**

Overall impression: competent knowledge and understanding

- Displays good knowledge of the purpose of the pituitary gland
- Discusses at least three functions of the gland
- Written communication is effective

Answers may include the following points:

- master gland
- responds to hormones from hypothalamus
- controls the release of hormones from other glands
- releases ADH to control water levels in urine
- regulates blood pressure (ADH)
- regulates lactation
- controls contractions in labour

Note: male role is unclear [9]

**(b)** Connor aged 67, has recently had a stroke

**(i)** Explain one cause of a stroke (AO1, AO2)

[1] For key phrase [2] for full description

Answers to consider

- serious interruption of blood supply to the brain
- by a blood clot
- by the rupture of an artery wall
- a blockage of an artery e.g. cholesterol

(1 × [2]) [2]

**(ii)** Explain three ways Connor may have been affected physically by his stroke (AO1, AO2, AO3)

[1] For key phrase [2] for full explanation

Any **three**

Answers may include:

The nature of the effects depends on the part of the brain affected:

- hemiplegia – paralysis of the left side of the body where the stroke happened on the right side of the cerebellum
- loss of speech if the stroke affects the speech centre
- loss of vision if the visual cortex is affected
- effects may be temporary and improve with time/treatment
- small stroke may be forerunner of a major stroke which can result in death
- loss of bladder control
- loss of balance
- fatigue
- loss of feeling/numbness

(3 × [2]) [6]

**(c)** Connor was burgled last year before he had his stroke. When the police arrived at his house, he was pale, shaking, his heart was racing and his breathing was rapid

Discuss how Connor's body had created this response (AO2, AO3, AO4)

**Mark Band 1 ([0]–[3])**

Overall impression: basic understanding

- Displays limited knowledge of the body's response mechanism
- Discusses one aspect of the response
- Written communication is basic

**Mark Band 2 ([4]–[6])**

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of the body’s response mechanism
- Discusses two aspects of the response
- Written communication is good

**Mark Band 3 ([7]–[9])**

Overall impression: competent knowledge and understanding

- Displays good knowledge of the body’s response mechanism
- Discusses at least three aspects of the response
- Written communication is effective

Answers may include:

This is an example of the flight or fright mechanism

The sympathetic nervous system has prepared Connor for the emergency:

- It has released nor-adrenaline
- this is carried along neurones
- It acts to speed up the heart and breathing rate
- blood is diverted from the skin/digestive system to muscles to prepare for action
- this made Connor pale/shaking
- The adrenal gland has also released adrenaline into the blood
- this will reinforce the effects of the sympathetic nervous system [9]

33

**3** This is a diagram of the urinary system

**(a)** Write down the name and one function of each of the parts labelled

A, B, C and D (AO1, AO2)

[1] For each part and [1] for one correct function for each part

Name	Function
A. Bladder	Stores urine/waste fluid
B. Kidney	Filters the blood to body/cleans the blood of poisons
C. Ureter	Carries urine from kidney to bladder
D. Urethra	Carries urine out of body/secreted urine
([1] × [8]) [8]	

**(b)** Sheila, aged 80, has urinary incontinence. She also has Type II diabetes and oedema

**(i)** Discuss what causes urinary incontinence (AO1, AO2)

[1] for key phrase [2] for adequate explanation [3] for full explanation

Answers could include:

The inability to control the evacuation of urine because:

- the bladder is overfull
- sphincter muscle has become weak, e.g. after child birth/old age
- bladder neck has become stretched and displaced

(1 × [3]) [3]

- (ii) Explain what is meant by oedema (AO1)  
[1] for key phrase [2] for full explanation

Answers to consider:

- tissues become abnormally filled with fluid
  - the retention of fluid in the body
  - causing swelling of limbs/abdomen/fluid in lungs
  - There are several types of oedema, e.g. pulmonary
- [2]

- (iii) Explain how two factors contribute to the onset of Type II diabetes (AO2, AO3)  
[1] For key phrase [2] for full explanation for each of two factors

Any **two**

- overweight/obesity
  - poor diet, i.e. glucose and fat rich – strain on pancreas to produce sufficient insulin to convert glucose to glycogen
  - lack of exercise – body has little chance to burn off excess carbohydrate
  - genetic pre disposition
- (2 × [2]) [4]

- (c) Peter aged 23, has just started work as a chef. He is very active and enjoys playing football and golf. He lives at home with his parents and he plans to get married next year. Last weekend he was in a car accident and as a result is experiencing kidney failure

Analyse how kidney failure could affect Peter's future lifestyle (AO1, AO2, AO3, AO4)

**Mark Band 1 ([0]–[4])**

Overall impression: basic understanding

- Displays limited knowledge of the effects of kidney failure
- Discusses two ways this may affect Peter's lifestyle
- Written communication is basic

**Mark Band 2 ([5]–[8])**

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of the effects of kidney failure
- Discusses three ways this may affect Peter's lifestyle
- Written communication is good

**Mark Band 3 ([9]–[12])**

Overall impression: competent knowledge and understanding

- Displays good knowledge of the effects of kidney failure
- Discusses at least four ways this may affect Peter's lifestyle
- Written communication is effective

Answers may include:

- kidney failure is not always permanent
- appropriate treatment of Peter’s injuries after the accident could result in full recovery
- a kidney transplant would be needed if the kidney failure becomes permanent
- as Peter is young a transplant has a better chance of being successful
- it may be hard to get a donor match unless a close family member is a suitable donor
- if no donor kidney is available renal dialysis would be essential
- renal dialysis would be needed two/three times a week
- Peter would have to follow a very careful diet – water/salt intake/alcohol
- this may make it hard for him to work as a chef/financial implications
- he may need time off work for dialysis/treatment
- he may find it hard to work full time
- he may be discriminated against
- he may struggle to cope with the changes to his circumstances
- this may adversely affect his relationships – parents/fiancée
- he may get a dialysis machine at home
- he would then need to adapt his home for this
- he would have to learn how to set up the dialysis equipment
- he may not be able to play sport

[12]

29

4 Leila, a sixth form student, viewed some human body structures using a light microscope. She identified five structures, A–E, illustrated below.

(a) Write down the name and one function of structures (AO1)

[1] For each structure and [1] for one correct function for each structure

Name	Function
A. Neurone/nerve cell	Nerve impulse transmission
B. egg cell/ovum	Reproduction/carries female gamete
C. epithelial cell	Protection – specific example acceptable
D. erythrocyte/red blood cell	Carries oxygen in blood
E. mitochondrion	Produces energy/ATP in cell

(10 × [1])

[10]

(b) Leila has myopia, a condition that affects her sight

(i) Discuss what causes myopic vision (AO1, AO2, AO3)

[1] For use of key phrase [2] for adequate discussion [3] for full discussion

Answers may include:

- some evidence suggests that this is hereditary
- rays of light come to a focus in front of the retina
- inability of eye to focus light on retina
- either because the eye ball is too long (this is the more common reason)
- or because the cornea is too thick
- or because the lens cannot fully accommodate far objects

[3]

- (ii) Use the diagram of the eye to discuss how individuals with perfect vision see objects clearly (AO1, AO2, AO3)

**Mark Band 1 ([0]–[3])**

Overall impression: basic understanding

- Displays limited knowledge of the functioning of the eye
- Discusses one stage in the process of viewing objects
- Written communication is basic

**Mark Band 2 ([4]–[7])**

Overall impression: adequate knowledge and understanding

- Displays adequate knowledge of the functioning of the eye
- Discusses two stages in the process of viewing objects
- Written communication is good

**Mark Band 3 ([8]–[10])**

Overall impression: competent knowledge and understanding

- Displays good knowledge of the functioning of the eye
- Discusses at least three stages in the process of viewing objects
- Written communication is effective

Answers may include the following points:

- light from an object enters the eye via the pupil
- the lens is contracted by the ciliary muscles to focus the image
- the image of the object is formed on the retina
- light sensitive cells on the retina detect the image/names rods and cornea
- the image is transmitted to the brain as an electrical impulse via the optic nerve

[10]

23

**Total**

**100**

AVAILABLE  
MARKS