



Rewarding Learning

**ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2023**

**Sports Science and the
Active Leisure Industry**

Unit AS 2

The Active Leisure Industry:
Health, Fitness and Lifestyle

[SAL21]

TUESDAY 23 MAY, MORNING

**MARK
SCHEME**

Foreword

Introduction

Mark Schemes are published to assist teachers and students in the 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- to 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 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 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.

General Marking Instructions

Introduction

Mark schemes are intended to ensure that the GCE examinations are marked consistently and fairly. The mark schemes provide markers with an indication of the nature and range of candidates' responses likely to be worthy of credit. They also set out the criteria which they should apply in allocating marks to candidates' responses.

Assessment objectives

Below are the assessment objectives for GCE Sports Science and the Active Leisure Industry.

Candidates must:

demonstrate knowledge and understanding of sports science and the active leisure industry (AO1);
apply knowledge, understanding and skills through different contexts appropriate to the sports science and the active leisure industry (AO2); and
analyse and evaluate evidence to make reasoned and valid judgements about sports science and the active leisure industry (AO3).

Quality of candidates' responses

In marking the examination papers, examiners should be looking for a quality of response reflecting the level of maturity which may reasonably be expected of a 17-year-old or 18-year-old which is the age at which the majority of candidates sit their GCE examinations.

Flexibility in marking

Mark schemes are not intended to be totally prescriptive. No mark scheme can cover all the responses which candidates may produce. In the event of unanticipated answers, examiners are expected to use their professional judgement to assess the validity of answers. If an answer is particularly problematic, then examiners should seek the guidance of the Supervising Examiner.

Positive marking

Examiners are encouraged to be positive in their marking, giving appropriate credit for what candidates know, understand and can do rather than penalising candidates for errors or omissions. Examiners should make use of the whole of the available mark range for any particular question and be prepared to award full marks for a response which is as good as might reasonably be expected of a 17-year-old or 18-year-old GCE candidate.

Awarding zero marks

Marks should only be awarded for valid responses and no marks should be awarded for an answer which is completely incorrect or inappropriate.

Types of mark schemes

Mark schemes for tasks or questions which require candidates to respond in extended written form are marked on the basis of levels of response which take account of the quality of written communication. Other questions which require only short answers are marked on a point for point basis with marks awarded for each valid piece of information provided.

Levels of response

Tasks and questions requiring candidates to respond in extended writing are marked in terms of levels of response. In deciding which level of response to award, examiners should look for 'best fit' bearing in mind that weakness in one area may be compensated by strength in another. In deciding which mark within a particular level to award to any response, examiners are expected to use their professional judgement.

Quality of written communication

Quality of written communication is taken into account in assessing candidates' responses to all tasks and questions that require them to respond in extended written form. These tasks and questions are marked on the basis of levels of response. The description for each level of response includes reference to the quality of written communication.

For conciseness, quality of written communication is distinguished within levels of response. An example follows:

Level 1: Quality of written communication is basic.

Level 2: Quality of written communication is good.

Level 3: Quality of written communication is excellent.

In interpreting these level descriptions, an example is provided below. Examiners should refer to the specific guidance given within the mark scheme for each question:

Band 1 (Basic): The candidate makes only a limited selection and use of an appropriate form and style of writing. The organisation of material will lack clarity and coherence. There is little use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar may be such that intended meaning is not clear.

Band 2 (Good): The candidate makes a reasonable selection and use of an appropriate form and style of writing. Relevant material is organised with clarity and coherence. There is some use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are sufficiently competent to make meaning clear.

Band 3 (Excellent): The candidate successfully selects and uses the most appropriate form and style of writing. Relevant material is organised with a high degree of clarity and coherence. There is widespread and accurate use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of a sufficiently high standard to make meaning clear.

- 1 (a) Answers may address some of the following points:
- A cool-down gradually reduces the intensity of exercise, returning the heart rate to resting rate.
 - A gradual cool-down is necessary as stopping exercise abruptly could cause blood pooling in the legs, and could result in dizziness or fainting.
 - An appropriate cool-down aids the dissipation of waste products, including lactic acid.
 - Cooling down reduces the potential of delayed onset of muscle soreness, enabling the athlete to recover quicker.
 - A cool down incorporating light exercise and stretching will reduce the risk of injury.

Award [1] for brief statement and up to [2] for full statement.

All other valid points will be given credit.

(1 × [2])

(AO1)

[2]

- (b) Answers may address some of the following points:
- A warm-up gradually increases heart rate preparing the cardiovascular system for more intense exercise.
 - Stroke volume increases allowing for greater oxygen delivery to the working muscles.
 - Cardiac output increases to meet muscle demand for oxygen.
 - A warm-up will raise muscle temperature increasing the elasticity of the muscle and improve the speed of muscle contraction.
 - Stretching and mobility exercises increase the range of motion at joints and will reduce the chances of injury.
 - Warm-up prepares the central nervous system for rapid firing of motor units.

Award [1] for brief description and up to [2] for full description.

All other valid points will be given credit.

(2 × [2])

(AO2)

[4]

- (c) Answers may address some of the following points:

(i) **Socially:**

- An active and healthy lifestyle can promote friendships and positive relationships.
- Taking part in physical activities with others encourages social interaction.
- Involvement in team games encourages team-work and co-operation with others.
- Fulfilment of being part of a team, a sense of loyalty, developing the feeling of belonging to a team.
- Develops community cohesion playing in a team based in an individual's community.
- Taking part in physical activity with others can reduce feelings of isolation and loneliness.
- Sport and physical activity with others helps individuals build social skills and has deterred anti-social behaviour.

(ii) Psychologically:

- An active and healthy lifestyle helps the individual 'feel good'. This is caused when the body releases chemicals called endorphins. Endorphins help relieve pain and stress. Physical activity also stimulates the release of dopamine, norepinephrine and serotonin. These chemicals regulate mood. These 'happy hormones' contribute to the individual's enjoyment of life.
- It can help relieve stress, anxiety and depression. The mind is occupied when exercising, which can act as a distraction from the problems of daily life.
- It can improve concentration, enhance memory and learning, leading to better performance and results for an individual.
- A healthy and active lifestyle particularly participation in sport can provide excitement to an individual's life. It allows a person to challenge themselves, set goals and feel a sense of achievement.
- Improves self-esteem through an enhanced body image.
- Improves self-confidence and self-worth, being part of a group/team in a positive environment.
- Can relieve aggression – aggression is channelled into sport/activity, in a more positive controlled manner.
- Reduced feelings of lethargy and fatigue. The individual has more energy to keep going and cope better with everyday activities and demands.
- Provides opportunities to participate in risk taking behaviour for e.g. rock climbing/abseiling. This is a healthy approach to pushing boundaries and experiencing an adrenalin rush.

Award [1] for a brief explanation and up to [3] for a full explanation.

All other valid points will be given credit.

(2 × [3])

(AO2)

[6]

(d) The quality of written communication is assessed in this question.

Answers may address some of the following points:

- Lifestyle coaching is a modern and rapidly growing method for helping others to improve, develop and learn new skills, find personal success, achieve aims and manage life change.
- Lifestyle coaching draws out rather than puts in, it develops rather than imposes. It reflects rather than trains. The individual needs to be fully aware of this approach and accepts that this is the process that will be used to help make changes to their lifestyle.
- Lifestyle coaching is about getting the very best out of the individual and enabling them to make decisions that will improve their life. Individuals need to be fully aware that it is difficult to change lifestyle habits.
- Recommendations made by the life coach need to be specific to the individual. Changes must take the individual's gender, circumstances, age group into consideration as that might affect the extent to which they may act on the recommendations being made.
- Lifestyle coaches can help make recommendations about changes relating to work/life balance and social life.
- Lifestyle coaches can help make recommendations about positive changes to diet and exercise habits.
- Lifestyle coaches can help make recommendations on lifestyle factors such as alcohol, smoking & drug use. The client may not want to or find it difficult to adapt from habits or addictions.

- Lifestyle coaches make recommendations based on information gathered from questionnaires, interviews and observations.
- Recommendations must be realistic. For example, if the lifestyle coach is suggesting more exercise, it is unlikely to be acted on if the individual's circumstances do not encourage exercise. A process would need to be in place which is structured for the client to gradually introduce recommendations being made.

All other valid points will be given credit.

Level 1 ([1]–[3])

Overall impression: Basic

- Basic knowledge and understanding of how a lifestyle coach can help an individual make positive changes to their lifestyle. The candidate may include basic examples.
- Demonstrates a basic ability to discuss the impact of a lifestyle coach on an individual's ability to make positive changes to their health and well-being. The candidate will provide basic explanations.
- Quality of written communication is basic. The candidate makes a limited selection and use of an appropriate form and style of writing. The organisation of material may lack clarity and coherence. There is little use of specialist vocabulary. Presentation, spelling, punctuation and grammar may be such that intended meaning is not clear.

Level 2 ([4]–[6])

Overall impression: Good

- Good knowledge and understanding of how a lifestyle coach can help an individual make positive changes to their lifestyle. The candidate will provide relevant examples.
- Demonstrates a good ability to discuss the impact of a lifestyle coach on an individual's ability to make positive changes to their health and well-being. The candidate will provide relevant explanations, using specific examples.
- Quality of written communication is good. The candidate makes a reasonable selection and use of an appropriate form and style of writing. Relevant material is organised with some clarity and coherence. There is adequate use of specialist vocabulary. Presentation, spelling, punctuation and grammar are sufficiently competent to make meaning clear.

Level 3 ([7]–[8])

Overall impression: Excellent

- Excellent knowledge and understanding of how a lifestyle coach can help an individual make positive changes to their lifestyle. The candidate will provide fully developed examples and show excellent understanding.
- Demonstrates an excellent ability to discuss the impact of a lifestyle coach on an individual's ability to make positive changes to their health and well-being. The candidate will provide thorough explanations and will use a variety of relevant examples.
- Quality of written communication is excellent. The candidate successfully selects and uses an appropriate form and style of writing. Relevant material is organised with a degree of clarity and coherence. There is extensive and accurate use of specialist vocabulary. Presentation, spelling, punctuation and grammar are of a high standard and ensure the meaning is clear.

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

(AO1, AO3)

[8]

20

2 (a) Answers may address some of the following points:

- Research in the UK has identified that poor lifestyle choices negatively impact the health of individuals. It has estimated the average life expectancy is 80–82 years for female and 78 for males. This is affected by poor lifestyle choices, which include: a sedentary lifestyle; poor diet; lack of sleep; poor work/life balance; smoking/nicotine addiction, alcohol addiction and misuse of legal and illegal substances.
- Inactivity/sedentary lifestyle – over the past decades, physical activity levels have declined. Technological advances have promoted passive leisure activities. People are leading more sedentary lives and rely on cars/buses/trains for transport over more active means such as cycling or walking.
- Poor lifestyle choices increase the threat to overall health, increases chances of developing hypokinetic diseases such as coronary heart disease, cancer, type II diabetes, which will reduce life expectancy.
- Research has shown that a lack of exercise causes as many as 1 in 10 premature deaths each year. It has also shown that poor physical fitness is directly linked to higher disease rates.
- Poor physical health can cause a decline in mental health.
- Poor diet – a diet high in saturated fat, salt and simple carbohydrates can lead to individuals becoming overweight or obese.
- Poor diet and sedentary lifestyle leads to obesity. The World Health Organisation has estimated that obesity causes around 3 million deaths per year.
- Lack of sleep – leads to fatigue and lethargy. Individual is less likely to feel motivated to be active.
- Poor work/life balance – individuals are living fast paced lifestyles. Individuals often work long hours focusing on career goals. This adds stress and creates a poor work/life balance. Individuals often have little time to build exercise into their working day.
- Smoking/nicotine addiction has been linked with illnesses such as: pneumonia; respiratory infections; stroke; mouth, throat and lung cancer.
- A high alcohol intake of more than 14 units a week causes long term health problems: liver disease; nerve damage; hypertension; stroke; mouth, throat and liver cancer.
- Taking illegal drugs such as cocaine can cause heart problems, depression and insomnia.

Award (1) for identification of key phrase and up to (2) for full examination.

All other valid points will be given credit.

(3 × [3])

(AO1, AO3)

[9]

(b) Answers may address some of the following points:

- (i)
- Exercise helps older adults to maintain or lose weight. This will reduce the likelihood of obesity.
 - As metabolism naturally slows with age, maintaining a healthy weight is a challenge. Exercise helps increase metabolism and builds muscle mass helping to burn more calories.
 - Improved cardiovascular function is achieved through involvement in physical activity. Exercise improves heart health and lowers blood pressure reducing the risk of stroke or heart attack.
 - Impact exercise will increase bone density and reduce the likelihood of osteoporosis.

- Older adults who exercise have a lowered risk of several chronic conditions including dementia, diabetes, obesity, heart disease, osteoporosis and some cancers. Exercise can prevent or delay disease. It will improve immune function.
- Exercise improves strength, flexibility and posture which in turn will help with balance, co-ordination and reducing the risk of falls.
- Strength training also helps alleviate the symptoms of chronic conditions, for example arthritis pain.

Award [1] for basic description and up to [2] for full description

All other valid points will be given credit.

(2 x [2])

(AO2)

[4]

- (ii)
- A Physical Activity Readiness Questionnaire (PAR-Q) must be completed by the client to obtain information regarding medical conditions. A PAR-Q will outline an individual's medical history and highlight any major factors that would stop them from participating. If a client answers 'Yes' to one or more questions, they should be instructed to talk to their doctor before beginning an exercise programme.
 - Fitness instructors would use PAR-Q to determine the safety or possible risk of exercising for an individual based upon their answers to specific health history questions.
 - The fitness instructor needs to know the health of the individual so that they can plan a programme that is suitable to their age, health status and current activity level. They do not want to plan a programme that would endanger the client.
 - A training programme should be tailored to suit the older adult, avoiding sessions incorporating HITT/heavy weight training to prevent injury.
 - The PAR-Q will help the fitness instructor identify the small number of adults for whom physical activity may be inappropriate or those who should have medical advice concerning the type of activity most suitable for them. The fitness instructor will then advise them to see a doctor before starting a programme.
 - A risk assessment is a procedure used to prevent accidents and ill health by helping people think about what could go wrong and identify ways to prevent problems. The fitness instructor must be aware that risk assessment is good practice and it is also a legal requirement.
 - A risk assessment should be completed to ensure the training environment is safe. A fitness instructor must assess risks and apply control measures. Equipment should be checked to ensure it is safe and up to specific standard for safe usage.
 - A fitness instructor must check the personal attire of the client and ensure clothing is suitable for the activity undertaken. Jewellery should be removed, hair should be tied back and appropriate footwear should be worn to provide grip.
 - Correct lifting technique when weight training must be coached specifically to avoid injury. The fitness instructor must insist that this correct technique is used consistently.
 - The fitness instructor must ensure that the resistance being used must be appropriate to the age, maturity and experience of the athlete to avoid injury.

- Use of a 'spotter' may be recommended to assist the client with free weights.
- A warm-up should be planned into the exercise programme to gradually prepare the body for exercise. It will gradually increase the heart rate and body temperature.
- A cool-down is necessary to gradually bring the body back to pre-exercise state. A cool down will reduce effects of DOMS.
- A contraindicated exercise is a movement that is not recommended because it is potentially dangerous. For example, extreme movements that cause extension or flexion of a joint beyond its normal range such as full circle neck rotations.
- The fitness instructor must use safe stretching and mobility exercises during the warm-up and cool-down to prevent joint injury.

Award [1] for brief explanation and up to [2] for full explanation.

All other valid points will be given credit.

(3 × [2])

AO2

[6]

AVAILABLE
MARKS

19

3 (a) Answers may address some of the following points:

Strength:

- Strength is the ability to overcome a resistance.
- A games player may apply strength rapidly and powerfully when executing skills/movements in a game.
- A games player may require static strength to maintain a position over a period of time.
- There are different types of strength: explosive; static; maximal and dynamic. Different games incorporate different aspects of strength.
- A strong games player can execute skills more effectively in a match.
- Strength is an important fitness component as it enables games players to avoid injuries and maintain good posture.
- Specific sporting example for e.g. a hockey player requires maximal strength for a strong shot on goal.

Muscular endurance:

- Muscular endurance is a specific muscle or a group of muscles making repeated contractions over a significant period of time.
- Most games require a player to execute skills/movements repeatedly throughout a match.
- Muscular endurance is linked to the body's effectiveness at getting oxygen to the working muscles and removing waste products.
- A games player requires a good level of muscular endurance to become effective at working continuously without fatiguing.
- Specific sporting example for e.g. a netball centre requires muscular endurance to pass repeatedly in a game.

Flexibility:

- Flexibility is the range of motion about a joint, usually controlled by the length of muscle.
- Flexibility enables games players to perform certain skills more efficiently and effectively. The player can execute more difficult skills that require a greater range of movement.
- Flexibility is important as it aids performance and decreases the risk of injury.
- Flexibility helps improve posture, maintains healthy joints and improves balance during movement.
- Specific sporting example for e.g. a soccer goalkeeper requires flexibility to stretch for a save.

All other valid points will be given credit.

Award [1] for identification and up to [2] for description.

(2 × [3])

(AO1, AO2)

[6]

(b) Answers may address the following points:

(i) **Specificity:**

- The principle of specificity ensures that the training programme is planned around the needs of the sport/game.
- Training should be tailored to the components of fitness required by the sport.
- Training should be specific to the individual and their needs. It may need to take into account the player's position, level of fitness or weaknesses in terms of fitness.

(ii) Progression:

- A coach must ensure that training becomes progressively harder over a period of time, thereby challenging the individual.
- The body will only adapt if the principle of progression is followed.
- Planning progression is key as without a correct level of progression, training gains will plateau and fitness levels will not increase.
- Too much progression could lead to injury/illness through over-training.

(iii) Overload:

- Overload occurs when the body systems are stretched beyond their normal functioning level.
- The FITT principle can be applied to control the level of overload
- Frequency: The number of sessions a week can be adjusted.
- Intensity: Intensity can be monitored depending on the training method being used for e.g. heart rate can be monitored by a games player during a plyometrics session to ensure work is within the anaerobic training zone.
- Time: The duration of the training session can be adjusted.
- Type: The training method used can vary to aid overload for e.g. circuit training could be added to a games player's weights based programme to add variation and allow overload to occur.

Award [1] for key phrase and up to [2] for full explanation.

All other valid points will be given credit.

(3 × [3])

(AO2)

[9]

(c) Answers may address some of the following points:**Plyometrics training:**

- Plyometrics involves hopping, bounding and jumping exercises often mimicking explosive actions that take place in sports such as Basketball, Netball, Sprinting, Rugby and Gaelic Football.
- Plyometric training recruits fast glycolytic fibres and fast oxidative glycolytic fibres. Targeting these fibres will ensure the muscle can perform more effectively in explosive actions.
- Plyometrics involves eccentric contraction of the muscle followed by a concentric reaction. This improves muscle elasticity and creates a greater force production enabling explosive power actions to be performed in sport.
- Enhanced anaerobic power and vertical jump height.
- This process causes muscle spindles to cause a stretch reflex, preventing any muscle damage and producing maximum force at a fast rate.
- Eccentric muscle contraction during plyometrics is one of the main causes of DOMS (delayed onset of muscle soreness)
- Young athletes should be monitored closely performing plyometrics as this type of training puts a lot of stress on the body and may cause injury to immature bones and joints.

Weight training:

- Free weights or resistance weight training involves lifting a high load, with speed and explosive intent.
- Weight training for power recruits fast glycolytic fibres and fast oxidative glycolytic fibres. Targeting these fibres will ensure the muscle can perform more effectively in explosive actions.
- Heavy weights (80% 1RM), high sets (4–5) and low reps (3–5).
- Weight training power exercise examples include Olympic lifts (Clean, jerk and snatch), push press, squat, bench press, lat pulldown, leg extension.
- Simple sets, pyramid sets or super sets can be adapted to suit a power based training programme.
- Recovery between sets (optimum 3–5 minutes for full restoration of ATP/PC) is crucial to ensure a successful session.
- Eccentric muscle contraction during weight training is one of the main causes of DOMS.

All other valid points will be given credit.

Award [1] for key phrase and up to [2] for full description.

(2 × [3])

(AO1, AO2)

[6]

(d) Answers may address some of the following points:

Carbohydrates:

- 50–65% of total calorie intake.
- Simple carbohydrates are required to fuel high intensity, short duration activity. Simple carbohydrates include glucose & fructose, e.g. sweets, fruit & sports drinks.
- Power athletes may also top up on fast release simple carbohydrates prior to exercise or training event.
- Simple carbohydrates stored in muscle and liver as glycogen.
- Main energy supply absorbed as glucose in small intestine. Transported around the body as blood glucose. Available for immediate energy, excess stored as muscle and liver glycogen.
- Complex carbohydrates are also a source of energy for an athlete – for long lasting energy, e.g. wholegrain pasta, rice, potatoes, fruit, cereals are very good sources of carbohydrate that athletes should incorporate into their daily diet.
- Carbohydrates should be ingested pre, during and post exercise.

Proteins:

- 15%- 20% of total calorie intake.
- Protein enables the body to grow and repair muscle tissue, produce enzymes, hormones and haemoglobin.
- A higher protein intake by power athletes will encourage hypertrophy of muscle.
- Protein promotes recovery and power athletes should have a higher intake to compensate for increased muscle breakdown that occurs during and after exercise.
- Protein provides energy when fat and carbohydrate stores are low, e.g. meat, fish, eggs, soya products, beans, pulses and protein shakes.

Fats:

- 20–30% of total calorie intake.
- Fat is an essential nutrient as it functions as our main energy source while at rest.
- Fat also supports vital organs and insulates the body.
- Fats can help absorption of vitamins.
- Power athletes often need to gain weight and protein sources are frequently accompanied by high fat content, e.g. dairy products milk, cheese, fish, meat, breads, pastries, chocolate.
- Excess saturated fat could cause weight gain. Unsaturated fats are a preferable source to saturated fat.

Award [1] for each identified food group and up to [2] for explanation.

All other valid points will be given credit.

(3 × [3])

(AO1, AO2)

[9]

30

AVAILABLE
MARKS

4 (a) Answers may address some of the following points:

AVAILABLE
MARKS

Coronary Heart Disease (CHD):

- Coronary heart disease is characterised by the deposit of fatty substances on the lining of the artery walls. Over time this deposit builds up and effects the flow of blood.
- An active lifestyle can prevent CHD. Individuals need to participate regularly in physical activity, government guidelines recommend 30 minutes/5 days a week for adults and 60 minutes per day for children.
- Individuals need to do moderate intensity exercise which will increase the heart rate, working within the appropriate age related training zone.
- Exercising appropriately will improve the efficiency of the heart and circulatory system. It will increase the levels of HDLs (high density lipoproteins) and help break down LDLs (low density lipoproteins).
- A balanced diet will help prevent CHD. A low cholesterol diet will prevent a build up of plaque or atheroma on the walls of the coronary arteries.
- Food consumption needs to be considered and adapted to prevent CHD. Food high in salt, sugar and fat needs to be reduced. High saturated fat will increase levels of LDLs in the blood. Low salt intake will be a preventative measure against CHD.
- A reduction in alcohol consumption, drinking in moderation, using the government recommended alcohol intake guidelines will help prevent CHD.
- Cessation of smoking will also help prevent CHD.

Diabetes:

- Diabetes is a disease characterised by the inability of the body to make sufficient insulin or, alternatively the resistance of the body to insulin, which makes it less sensitive to insulin.
- Dietary and other lifestyle adjustments are part of the management of type II diabetes.
- Being physically active improves glucose levels.
- Exercising has a positive effect on body fat and blood pressure levels. Burning excess body fat helps to decrease and control body weight which results in improved insulin sensitivity.

Osteoporosis:

- Osteoporosis is a degenerative bone disease characterised by the thinning of bones. Bones become brittle and more prone to fractures, as the mineral density of the bones is decreased.
- Osteoporosis is largely preventable for most people and requires a healthy diet with the recommended daily amount of calcium and vitamin D.
- Incorporating weight-bearing exercise into an individual's routine can prevent the development of osteoporosis. Weight-bearing exercises, for example walking, jogging and aerobics are effective in building bone density.

Award [1] for key phrase and up to [2] for analysis.

All other valid points will be given credit.

(3 × [3])

(AO1, AO3)

[9]

(b) The quality of written communication is assessed in this question.

AVAILABLE
MARKS

Answers may address some of the following points:

5 A Day Initiative:

- The 5 A Day initiative is aimed at getting people to increase the amount of fruit and vegetables they consume on a daily basis.
- 5 A Day highlights the health benefits of getting five 80g portions of fruit and vegetables daily which can help to improve and maintain people's health, boost immune system, have a healthy body, lowers the chances of disease, obesity, type 2 diabetes, stroke and some cancers.
- Enables young people to achieve a balanced diet by incorporating fruit and vegetables, addressing vitamin and mineral consumption. Fruit and vegetables are low in fat and calories, enabling young people to maintain a healthy weight and keep their heart healthy.
- It can be expensive to consume a diet of 5 A Day.

Change4Life Initiative:

- Change4life is a government backed initiative. The government has looked for support from grass roots organisations to leading supermarkets and charities to create a lifestyle revolution on a huge scale.
- Change4life aims to create a movement in which everyone in society plays their part, helping to create fundamental changes to those behaviours that can help people lead healthier lives.
- Change4life aims to help young people make small, sustainable changes yet significant improvements in their diet and activity levels. It uses the slogan 'eat well, move more, live longer'.
- Continual promotion of the Change4life initiative is necessary to continue to ensure the message is communicated to all in society.

Healthy Schools:

- Healthy schools programme is a long term government initiative aiming to create young people who are happier, healthier, stay safe and do better in learning and life.
- This initiative involves students, staff and parents, working together in an effort to equip young people with the skills and knowledge for them to make informed choices about healthy living.
- The themes of the initiative include personal, social and health education, physical activity, healthy eating and emotional health and well-being. The initiative aims to help young people to develop healthy behaviour, reduce health inequalities, raise their achievement and promote social inclusion.
- Healthy schools will provide parents with information on food in school, e.g. healthy option ideas for school lunch for young people.
- Healthy schools will enable young people to have access to healthy food including e.g. breakfast clubs.
- Promotion of the healthy eating message to young people, through cookery clubs and gardening club.
- Other initiatives accepted: smoking ban; Healthy Families; GP referral; Cycle to work; Daily mile; NHS Weight Matters.

All other valid points will be given credit.

Level 1 ([1]–[3])**Overall impression: Basic**

- Basic knowledge and understanding of the government initiatives which aim to improve the health of young people in society. The candidate may include basic examples.
- Demonstrates a basic ability to discuss the government initiatives which aim to improve the health of young people in society. The candidate will provide basic explanations.
- Quality of written communication is basic. The candidate makes a limited selection and use of an appropriate form and style of writing. The organisation of material may lack clarity and coherence. There is little use of specialist vocabulary. Presentation, spelling, punctuation and grammar may be such that intended meaning is not clear.

Level 2 ([4]–[6])**Overall impression: Good**

- Good knowledge and understanding of the government initiatives which aim to improve the health of young people in society. The candidate will provide relevant examples.
- Demonstrates a good ability to discuss the government initiatives which aim to improve the health of young people in society. The candidate will provide relevant explanations, using specific examples.
- Quality of written communication is good. The candidate makes a reasonable selection and use of an appropriate form and style of writing. Relevant material is organised with some clarity and coherence. There is adequate use of specialist vocabulary. Presentation, spelling, punctuation and grammar are sufficiently competent to make meaning clear.

Level 3 ([7]–[8])**Overall impression: Excellent**

- Excellent knowledge and understanding of the government initiatives which aim to improve the health of young people in society. The candidate will provide fully developed examples and show excellent understanding.
- Demonstrates an excellent ability to discuss the government initiatives which aim to improve the health of young people in society. The candidate will provide thorough explanations and will use a variety of relevant examples.
- Quality of written communication is excellent. The candidate successfully selects and uses an appropriate form and style of writing. Relevant material is organised with a degree of clarity and coherence. There is extensive and accurate use of specialist vocabulary. Presentation, spelling, punctuation and grammar are of a high standard and ensure the meaning is clear.

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

(AO1, AO3)

[8]

17

5 (a) Answers may address some of the following points:

- Public Leisure Centres are funded by the government. This money is generated by taxing the general public.
- Leisure Centres are commonly found in most large towns/areas and provide a range of facilities. They create opportunities for the local community to take part in activities/sports.
- Provision of facilities in the community – sports halls, gyms, swimming pools, athletics track and fitness suites.
- Provision of informal recreational exercise classes for the community at a competitive rate.
- Schools often access local Leisure Centres to access facilities such as the swimming pool for lessons.
- Access available to most in the community through reduced rates for older and younger members.
- Long opening hours to facilitate community – options for off peak rates during the day.
- Provision for competitive/elite sports persons through hire of facilities and gyms.
- Provision of summer schemes for children at competitive rates promoting youth activity.

All other valid points will be given credit.

Award [1] for brief description and up to [2] for full description.

(2 × [2])

(AO2, AO3)

[4]

(b) The quality of written communication is assessed in this question.

Answers may address some of the following points:

- There are many barriers that affect the opportunity to take part in sport and recreation. These barriers can prevent or reduce the opportunity for sports participation of a number of groups in society due to socio-economic factors, disability, gender, ethnicity and age.
- Provision can also be a barrier for some people in society. For example, some people living in a poorer or inner-city area may find it difficult accessing suitable sports facilities to use.
- Esteem can impact all groups in society. This is the individual's self-confidence or self-belief in their ability to participate. This can be influenced by peer and stereotypical views.
- Time is a significant factor that affects participation. Time is not just a barrier for those who want to become sports professionals, but also for people who wish to take part in recreation activities such as hill-walking or swimming. Time commitments to family and work life may form a barrier to participation.
- Socio-economic barriers in relation to inability to pay for equipment and clothing may make it difficult to participate in some sports or physical activities.
- Financial difficulties in relation to lack of ability to pay membership fees and training costs.
- Lack of transport or ability to afford transportation costs to attend training or sporting events.
- All people have different levels of ability, a perception that a person has a lack of skill or ability as others might inhibit participation.

- Not having opportunities to access specific coaching to develop necessary skills, lack of early experience in sport may hinder someone getting involved in certain physical activities.
- Lack of understanding and awareness of how to include people with a disability in sport, limiting opportunities and programmes for participation, training and competition.
- Lack of accessibility to suitable facilities to meet the needs of all participants who wish to take part in regular physical activity or exercise.
- Some ethnic communities do not regard sport as a viable career path.
- Parental expectations may not include the benefits of participating in sport so children from some ethnic groups may not be encouraged by parents to participate.
- Low participation rates linked to strict religious beliefs for e.g. religious requirements of the Muslim faith requiring women to be covered may prevent participation.
- Many ethnic minority groups live in poverty and lack the financial means to participate in sport.
- Stereotyping exists – channelling of certain ethnic groups into certain sports.
- Research has shown that for most sport and physical activity participation is higher amongst men.
- Domestic role – women have traditionally had to bear the greater burden of domestic work, reducing the time they have available for leisure.
- Social stereotyping – society is still less positive about female sports participation in some sports compared to males. Gender stereotyping can still occur which may constitute a further barrier where traditional views may prevent participation e.g. rugby for males or dancing for females.
- Less media coverage – there has traditionally been less media coverage of female sport. This does not raise the profile of women's sport and there are fewer role models to aspire to.
- Traditionally less money and power is associated with women in sport. Women generally earn less money than men and occupy fewer positions of power in society, in the workplace and consequently in sporting institutions where decisions are made.
- Sport and active leisure activities are traditionally associated with youth/younger generation. Older people may lack the confidence/self-esteem to take up or return to a sporting activity.
- Less opportunities for active leisure/sport available for this older demographic.
- Cost implications for an older person as they may be retired and may not have disposable income available to pay for activities/cover membership fees/buy equipment.
- Transport to facilities that provide activities may not be available to the older person as they may not drive and public transport may not be suitable.
- As a person ages they are more likely to suffer illness or injuries and this may restrict the activities they are able to take part in.
- Lack of older role models.
- Teenagers may lack motivation to engage in sports activities on a regular basis. This group frequently prioritises other choices for use of their leisure time, e.g. music and entertainment. There may be a perceptual barrier especially when their peers are not involved in sport.
- Lack of time may be a barrier when older teenagers are studying and working part time.

- Young children may have a lack of suitable age appropriate sessions available in their local area. Young children are also dependant on parental supervision and transport to access sports activity sessions. All other valid points will be given credit.

Level 1 ([1]–[4])

Overall impression: Basic

- Basic knowledge and understanding of the barriers that can have an impact on sports participation for individuals in society. The candidate may include basic examples.
- Demonstrates a basic ability to examine the barriers that can have an impact on sports participation for individuals in society. The candidate will provide basic explanations.
- Quality of written communication is basic. The candidate makes a limited selection and use of an appropriate form and style of writing. The organisation of material may lack clarity and coherence. There is little use of specialist vocabulary. Presentation, spelling, punctuation and grammar may be such that intended meaning is not clear.

Level 2 ([5]–[7])

Overall impression: Good

- Good knowledge and understanding of barriers that can have an impact on sports participation for individuals in society. The candidate will provide relevant examples.
- Demonstrates a good ability to examine the barriers that can have an impact on sports participation for individuals in society. The candidate will provide relevant explanations, using specific examples.
- Quality of written communication is good. The candidate makes a reasonable selection and use of an appropriate form and style of writing. Relevant material is organised with some clarity and coherence. There is adequate use of specialist vocabulary. Presentation, spelling, punctuation and grammar are sufficiently competent to make meaning clear.

Level 3 ([8]–[10])

Overall impression: Excellent

- Excellent knowledge and understanding of the barriers that can have an impact on sports participation for individuals in society. The candidate will provide fully developed examples and show excellent understanding.
- Demonstrates an excellent ability to examine the barriers that can have an impact on sports participation for individuals in society. The candidate will provide thorough explanations and will use a variety of relevant examples.
- Quality of written communication is excellent. The candidate successfully selects and uses an appropriate form and style of writing. Relevant material is organised with a degree of clarity and coherence. There is extensive and accurate use of specialist vocabulary. Presentation, spelling, punctuation and grammar are of a high standard and ensure the meaning is clear.

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

(AO1, AO3)

[10]

Total

**AVAILABLE
MARKS**

14

100