

GCSE 2004
June Series



Mark Scheme

Physical Education Specification A *(3581/W)*

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

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Dr. Michael Cresswell Director General

Physical Education

2004

Specification A

- 1 (a) (i) Award **one** mark for each correctly stated reason why taking regular exercise can generally improve health.

Examples include:

- It can help to relieve tension and stress.
- It can help to reduce the chances of getting illnesses and diseases.
- It can help to improve sleep and sleep patterns.
- It can tone up the body and lead to improvements in posture.
- It can improve basic levels of strength.
- It can improve basic levels of stamina.
- It can improve basic levels of flexibility.

Accept the above plus any other suitable specific physiological examples.

(max 2 marks)

- (ii) Award up to **two** marks for correctly explaining why the amount of exercise required might vary between individuals.

Examples include:

- Energy requirements might vary due to factors such as age/, gender/ and activity/exercise level/level of performance.
- The actual physical condition of an individual may also vary, such as possible illness or injury/ which could prevent them from exercising.

Accept the above plus any other suitable examples.

(max 2 marks)

- (b) (i) Award up to **two** marks for correctly explaining what is meant by specific fitness.

Example:

- The level of fitness which is required/ for a performer who is taking part in particularly demanding activity/ or sport at a high level.

Accept the above plus any other suitable examples.

(max 2 marks)

- (ii) Award up to **three** marks for a correct response, which must relate particularly to the stated physical activity.

The elements required for a correct response are what the aspect is/ why it is important/ and example.

Example:

Gymnastics – good flexibility/strength/mobility/ would be required in order to allow the performer to take part effectively and compete/ at the required or high level.

Soccer –high endurance levels/agility/mobility/ would be required to allow them to be effective throughout the total game period/ at the required or high level.

(max 3 marks)

(c) Award up to **two** marks for correctly identifying a physical activity and a corresponding correct explanation.

Example:

- Athletics – this tends to be a summer activity/ therefore competition takes place at this time and the ‘closed season’ is used to train/ practice/ even recover from injury/ rest.
 - Hockey – this is a winter activity/ therefore competition takes place at this time and the ‘closed season’ is used as a time to train/ practice/ even recover from injury/ rest.
- Accept the above plus any other suitable examples.

(max 2 marks)

(d) (i) Award **one** mark for a correctly named substance.

- Fats
- Proteins
- Vitamins
- Minerals
- Fibre/roughage
- Water/fluids

(max 1 mark)

(ii) Award up to **three** marks for correctly explaining carbohydrate loading and correctly linking it to an appropriate sporting situation.

Award up to **two** of the marks for the correct explanation of carbohydrate loading.

Example – eating a high level of starchy foods rich in carbohydrates/ for a period (usually about a week)/ before an event or competition/ to increase the levels of glycogen in the muscles/ which then helps to delay tiredness/ and may improve performance at the end stages of a competition.

The sporting situation stated must be one that requires high levels of endurance such as long distance running or a marathon.

What/ when/why identified

Accept the above plus any other suitable examples.

(max 3 marks)

2 (a) (i) Award **one** mark for each correctly named bone.

- Femur
- Patella
- Tibia
- Fibula

(max 3 marks)

(ii) Award up to **two** marks for a correct explanation.

These are bands of fibres/ which attach bone to bone to / keep joints stable/ allow movement.

(max 2 marks)

(b) (i) Award **one** mark for each correctly stated muscle type.

- Voluntary or skeletal
- Involuntary or smooth

(max 2 marks)

(ii) Award up to **three** marks for a correct explanation.

1. Award one mark for tissue which joins a muscle to bone
2. The origin is the end of the muscle which is actually fixed / by tendons / to the bone; the insertion is the part of the muscle which actually moves the most and it is at the opposite end of the muscle to the origin.

(max 3 marks)

(c) (i) Award **one** mark for each correctly described pulse point. Note that some may be correctly named and for others a description of their exact location may be accepted.

- Radial pulse / at the base of the thumb on the inside of the wrist
- Temporal pulse / just over the temple at the side of the forehead
- Carotid pulse / on either side of the neck
- Femoral pulse / in the groin.

(max 2 marks)

(ii) Award up to **three** marks for a correct explanation.

Examples:

- The heart rate lets you know how quickly the blood is being pumped around the body.
- This is effectively providing the energy to allow the body to exercise.
- There are certain zones or areas which the heart rate can be increased to or worked in.
- The speed of your recovery rate is a general indication of your levels of fitness.
- The quicker you are able to return your pulse to its resting rate the fitter you are.
- Monitoring the rate can be used as a training indicator to make sure you are working at the correct levels.
- Varying the pulse rate can be used relative to the principle of overload.
- Safety aspects can be considered to ensure you are not working at too high a level.

Accept the above plus any other suitable examples.

(max 3 marks)

- 3 (a) (i) Award **one** mark for each correctly stated benefit.
- (To increase) muscle strength, either general or specific
 - (To improve) muscle tone.

Accept the above plus any other suitable examples.

(max 2 marks)

- (ii) Award **one** mark for each correctly stated meaning.
- Repetitions are the number of times you actually move the weights.
 - Sets are the number of times you perform a particular weight activity.

(max 2 marks)

- (iii) Award up to **two** marks for a correct explanation.
This is the lowering of fitness or loss of fitness levels / due to stopping or decreasing levels of training. / This is the reverse effect of progression and you lose its effects/ quicker than it is gained.

(max 2 marks)

- (b) (i) Award up to **two** marks for a correctly described test.
- Sit and reach test/ when sitting (with straight) legs facing a raised block on which you push away a slide or marker/ which is measured to test the amount of flexibility in the lower back and hamstrings.
 - Using particular stretching exercises such as bending (with straight legs)/ and trying to touch your toes / the distance reached can be measured, either with the gap left or the distance to the ground covered.

Accept the above plus any other suitable examples.

(max 2 marks)

- (ii) Award up to **two** marks for a correct response.
- Through stretching activities such as static stretching / active stretching / and passive stretching/or an example of it.
 - Through mobility exercises/ which stretch muscle groups around joints.

(max 2 marks)

- (c) (i) Award **one** mark for each correctly named drug.
- Stimulants
 - Narcotic Analgesics
 - Diuretics
 - Peptide Hormones/ Mimetics and Analogues/ EPO
 - Beta Blockers
 - Blood Doping

This is a definitive list!

(max 2 marks)

(ii) Award up to **three** marks for a correct explanation. Note that advantages and disadvantages can be considered and credited. Award one mark for correctly identifying why performers would choose to use them plus **two** further marks for the correctly identified effects.

- They would be used to help to improve performance / to allow a greater amount or level of training to be undertaken.
- They can increase muscle strength.
- They can enable them to train for longer and harder.
- They can increase competitiveness.
- They can have unpleasant side effects.
- They can cause liver damage and heart disease.
- They can cause sexual and physique problems.
- They can have unpleasant behavioural effects.

Accept the above plus any other suitable examples.

(max 3 marks)

4 (a) (i) Award **one** mark for each correctly stated somatotype.

- Endomorph
- Mesomorph
- Ectomorph

(max 2 marks)

(ii) Award up to **three** marks for a correct description. To achieve the marks the candidate must state what the particular characteristics are of their chosen body type, how this would then be used to advantage and how it would make them more effective.

Examples:

- Gymnastics - extreme mesomorphs are relatively short and small. / This gives them a low centre of gravity with a low body weight / therefore allowing them to perform rotation activities much more easily.
- Weightlifters - extreme endomorphs are generally large with short legs in relation to their trunks. / This gives them a low centre of gravity with body bulk / which greatly assist in lifting heavy weights.
- Basketball – extreme ectomorphs are generally tall and thin. / Their long legs and long arms / enable them to receive higher passes and shoot at the basket more easily.

Accept the above plus any other suitable examples.

(max 3 marks)

(b) (i) Award up to **two** marks for a correct response.

- It allows the performance to be accurately recorded.
- The performance may be reviewed and replayed as many times as necessary.
- Enhancements such as freeze frame or frame advancement can be used to look at specific aspects or phases of the performance.

Accept the above plus any other suitable responses.

(max 2 marks)

(ii) Award up to **two** marks for a correct response.

- Faults in a performance can be identified and considered.
- Improvements or alternatives can be considered and tried.
- Future performance can also be filmed, recorded and analysed and compared to the initial one.
- Actually seeing the performance gives much more accurate knowledge of results.

Accept the above plus any other suitable responses.

(max 2 marks)

(c) (i) Award up to **two** marks for a correct response.

- Baggy clothing could be dangerous in an activity such as trampolining / where it might get caught in the bed or the springs.
- The clothing might also be a piece of protective equipment such as a padded goalkeeper's shirt / which can protect from any impact injuries.
- Clean and specific sport clothing / prevents the possibility of infections and diseases being picked up or passed on to others.

Accept the above plus any other suitable examples.

(max 2 marks)

(ii) Award up to **two** marks for a correct response.

- Generally footwear can give support to arches and ankle joints. / This lessens the effect of impact when running or jumping.
- Specific footwear may aid with grip or comfort / such as running spikes or studded boots.
- Specific footwear such as goalkeepers' kickers in hockey / specifically protects the foot area from the hard ball.

Accept the above plus any other suitable examples.

(max 2 marks)

(iii) Award up to **two** marks for a correct response.

- Equipment requirements / such as safety wear, gum shields, batting helmets etc make sure that performers are protected.
- Specific rules regarding appearance / such as nails kept short in netball and loose hair tied back in gymnastics and trampoline, plus the non-wearing of jewellery.
- Specific rules of activities / to prevent either foul or dangerous play.

Accept the above plus any other suitable examples.

(max 2 marks)

5 (a) (i) Award up to **two** marks for a correct response.

- General staff attitude can influence, either positively or negatively.
- The experience of staff in various activities, or a range of activities, can be influential.
- The playing ability and level of staff expertise can be influential.
- Specific staff interest in particular activities will usually lead to a rise in participation in that particular activity.

Accept the above plus any other suitable responses.

(max 2 marks)

(ii) Award up to **two** marks for a correct response.

- Good facilities or a lack of suitable ones / will affect levels positively or negatively.
- Specific facilities, such as squash court or fitness suites, / will encourage specific participation in particular sports or activities.

Accept the above plus any other suitable responses.

(max 2 marks)

(iii) Award up to **two** marks for a correct response.

- Specific links can encourage extra participation; / pupils will be able to continue an activity outside of school.
- Sports not catered for in school could be covered outside of school. / This would enable pupils to take up new activities.

Accept the above plus any other suitable responses.

(max 2 marks)

(b) (i) Award up to **two** marks for a correct response.

Examples:

- Soccer – the high profile of some performers / linked with great financial rewards for the top players has encouraged more young people to get involved.
- Fitness training – the importance of maintaining health and fitness / to improve quality of life has encouraged more adults to get involved.
- Fitness – the greater provision of specific clubs and facilities / has given people the opportunity to be able to take part.
- Trends – such as: gymnastics (every four years following an Olympics) / raises the profile of an activity and therefore encourages greater participation.

Accept the above plus any other suitable responses.

(max 2 marks)

(ii) Award up to **two** marks for a correct response.

Examples include:

- Boxing – the dangers inherent in the sport and several recorded deaths / have led to young people being discouraged from taking it up, especially by parents.
- Rugby (in some schools and areas) – because of the perceived dangers of it as a contact sport and the qualifications needed to teach it / has resulted in less provision (this could also be applied in some instances with regard to cricket and trampoline within schools).

Accept the above plus any other suitable responses.

(max 2 marks)

(c) Award up to **two** marks for each correct response. *3 x 2 marks total*

Examples include:

- Organising local and national competitions. / This can range from local leagues and teams right through to international competitions.
- Team selection; / they choose and select regional and international teams and players.
- To keep players and participants informed, / ranging from coaching information, rule changes, equipment provision etc.
- Maintaining relationships with the media / including negotiating television rights and advertising etc.
- Drafting the rules and laws of the game or activity; / this includes upholding them and considering any changes.

Accept the above plus any other suitable responses.

(d) (i) Award up to **two** marks for a correct response. Note that both positive and negative influences can be considered.

Examples include:

- If the peer group is positive about sport or sporting activity / it is likely that they will want to be taking part and encourage others to do so.
- If the peer group has negative attitudes, and alternative choices to spend leisure time on / it is likely that they will not be positive about participating and might even actively discourage participation.

Accept the above plus any other suitable responses.

(max 2 marks)

(ii) Award up to **two** marks for a correct response. Note that both positive and negative influences can be considered.

- Parents can have a positive influence and / assist via transport / finance / positive role model / equipment provision / encouragement / attending competitions and offering vocal support etc.
- Parents can have negative influence / discouraging participation / even actively prohibiting participation in some activities / refusing finance or equipment provision / not allowing time for practice or competition etc.

Accept the above plus any other suitable responses.

(max 2 marks)

- 6 (i) Award up to **three** marks for a correct response. Award **one** mark for identifying and describing how the sponsorship could be an advantage, one mark for linking it with increasing participation and another mark for the appropriate example.

Example:

- Kit sponsorship could be provided, which means that clubs do not have to provide their own. / This enables more teams to be able to compete properly and individuals to take part. / An example of this would be any school soccer, netball or basketball team with sponsored kit or even professional teams who have deals.

(max 3 marks)

- (ii) Award up to **three** marks for a correct response. Award **one** mark for identifying and describing the sponsorship considered to be a disadvantage, **one** mark for linking it with the effective running and organisation of the activity and **one** mark for the appropriate example.

Example:

- Sponsors dictating to sporting organisations such as dictating the starting times of particular events/ to suit television audiences in particular parts of the world. / This often happens with Olympic events and in boxing.

(max 3 marks)

- (b) Award up to **two** marks for each correct response. *2 x 2 marks in total*

Examples include:

- Live sporting programmes / such as Ford Super Sunday or other Sky coverage
- Highlights programmes / such as Match of the Day
- Documentaries / accept any examples, which are likely to be quite recent
- News bulletins / either specific sports news channels or bulletins within main news programmes
- Information services / such as Ceefax, Teletext etc.
- Sporting magazine programmes / such as Grandstand
- Educational, schools, skills programmes / such as BBC Bitesize, Peak Performance etc.
- Dedicated channels / such as Chelsea, Manchester United etc.

Accept the above plus any other suitable examples.

- (c) (i) Award up to **two** marks for a correct response. The benefit must be stated, and the way in which it actually assists.

Examples:

- Finance, spectators paying to watch an event/ or helping to pay for it either taking place or players wages etc.
- Support, spectators cheering on their team/ can help them to be more successful.

Accept the above plus any other suitable examples.

(max 2 marks)

- (ii) Award up to **two** marks for a correct response. The problem must be stated, and the way in which it actually disrupts.

Examples:

- Crowd behaviour: / competitions can be disrupted or even stopped altogether if crowds riot or misbehave
- Crowd control: / controlling crowds and marshalling them can be very expensive and can raise health and safety issues

Accept the above plus any other suitable examples.

(max 2 marks)

- (d) Award up to **three** marks for each correct response. Award

- ◆ **one** mark for correctly identifying or giving an example of the event,
- ◆ **one** mark for what the political or financial issue was *or* how it affected the event and
- ◆ **one** further mark for describing why it happened – which must be linked to the example.

Examples:

- Political interference in an Olympic games, resulting in a boycott of Moscow in 1980 / when as a protest about the Russian invasion of Afghanistan / some countries such as the USA and Great Britain advised its competitors against going to the games. Some even prohibited their athletes from taking part.
- The apartheid system in South Africa / segregated particular racial groups and did not allow them equal rights. / Not only were they denied sporting access in their own country but South Africa was then banned from much international sport including the Olympic Games from 1964 until 1992.

Accept the above plus any other suitable examples.

(max 6 marks)

MARKING CRITERIA FOR QUALITY OF WRITTEN COMMUNICATION

3581/W

High Performance	Candidates spell, punctuate and use the rules of grammar with almost faultless accuracy, deploying a range of grammatical constructions; they use a wide range of specialist terms adeptly and with precision.	4 - 5 marks
Intermediate Performance	Candidates spell, punctuate and use the rules of grammar with considerable accuracy; they use a good range of specialist terms with facility.	2 –3 marks
Threshold Performance	Candidates spell, punctuate and use the rules of grammar with reasonable accuracy; they use a limited range of specialist terms appropriately.	1 mark
Below Threshold Performance		0 marks