



General Certificate of Secondary Education

Physical Education 3581

Full Course

Specification A

Written Paper

Mark Scheme

June examination 2008 series

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.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this Mark Scheme are available to download from the AQA Website: www.aqa.org.uk

Copyright © 2008 AQA and its licensors. All rights reserved.

COPYRIGHT

AQA retains the copyright on all its publications. However, registered centres for AQA are permitted to copy material from this booklet for their own internal use, with the following important exception: AQA cannot give permission to centres to photocopy any material that is acknowledged to a third party even for internal use within the centre.

Set and published by the Assessment and Qualifications Alliance.

- 1 (a) (i) Award **one** mark for a correctly identified part, and **one** mark for each reason for including the exercise.

Parts include:

pulse raising / jogging/ cycling/ rowing machine/ swimming
stretching/ mobilising
skills practice

Reasons include:

- In order to prevent/avoid injury
- To increase / decrease heart rate
- To gradually increase / decrease the body temperature
- To increase the range of movement
- To be able to gradually increase the effort to full pace/ decrease effort
- To enable some psychological preparation
- To be able to practice some movement skills through the whole range of movement

Accept the above plus any other suitable examples.

NB Note that reasons for warm-down can also be accepted.

maximum 3 marks

- (ii) Award **one** mark for being able to correctly identify lactic acid as:
a waste material / or poison / a by-product of exercise.
Award **one** further mark for a correct reason for removing it.

Examples include:

- It can prevent soreness in the body at a later stage
- It can prevent stiffness in the muscles at a later stage
- It can cause muscle fatigue at a later stage

Accept the above plus any other suitable examples.

maximum 2 marks

- (b) (i) Award up to **two** marks for describing an acceptable social benefit.

Examples include:

- Meeting / making new friends / who might then have shared common interests
- Being able to get involved in team games, or even individual sports / and being involved in an organised club with social facilities
- Post training or post match socialising / with team or opposition

Accept the above plus any other suitable examples.

maximum 2 marks

- (ii) Award up to **two** marks for **describing** an acceptable physical or psychological benefit. Note that for two marks, benefit must be described.

Examples include:

- Improving body shape/ to improve self esteem
- General good health/ reducing the chances of getting illness or diseases
- Helping with the release / of tension *or* stress / for mental wellbeing
- Helping to sleep better/ due to physical exertion
- Toning up the body *or* the muscles / improving posture
- Increasing basic levels of strength *or* stamina *or* flexibility / *to improve performance*

Accept the above plus any other suitable examples.

maximum 2 marks

- (c) (i) Award up to **two** marks for **describing** why carbohydrates are a necessary part of a diet.

Examples include:

- They provide the body with energy/ for an extended period of time or to allow a movement to occur
- It can be broken down into glycogen/ to be stored for release over a period of time
- Performers can carbohydrate load/ in preparation for endurance type events

NB Just an action stated is not sufficient

Accept the above plus any other suitable examples.

maximum 2 marks

- (ii) Award up to **two** marks for **explaining** why water/ fluids are a necessary during activity.

Examples include:

- To avoid dehydration / replacing fluids which are being lost from the body
- To enable the body to continue to sweat / carry out the cooling process

Accept the above plus any other suitable examples.

maximum 2 marks

- (iii) Award up to **two** marks for **explaining** what obesity is:
- Being extremely or clinically / fat or overweight

Accept the above plus any other suitable examples.

maximum 2 marks

2 (a) (i) Award **one** mark for correctly stating a **bone** in the arm, **one** mark for correctly stating a **joint** and **one** further mark for correctly stating a **muscle**.

- Bones – humerus, ulna, radius, carpals, metacarpals, phalanges, *scapula*
- Joints – shoulder, elbow, wrist (possible hinge in fingers), condyloid / gliding, radio-ulna (pivot), saddle
- Muscles – biceps, triceps, latissimus, dorsi, deltoids, pectorials, trapezius

maximum 3 marks

(ii) Award up to **two** marks for correctly **explaining** abduction.

- The movement of a bone or limb away / *from the central or mid-line of body*

maximum 2 marks

(b) (i) Award **one** mark for each of the correctly named air passages

- Mouth
- Nose or nasal passage
- Pharynx
- Epiglottis
- Larynx
- Trachea or windpipe
- Bronchi or bronchus
- Bronchioles

maximum 2 marks

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

- Award up to **two** marks for correctly describing it as the oxygen / being exchanged for the carbon dioxide
- Award **one** mark for stating that gaseous exchange occurs in the lungs or alveoli

maximum 3 marks

NB Right gases in the wrong direction = maximum 1 mark.

(c) (i) Award up to **two** marks for correctly stating two different functions or roles of the blood.

- Transport – of oxygen/ carbon dioxide
- Transport of glucose/ waste products
- Body temperature control
- Protection
- Clotting
- Hormones
- Any other suitable example

maximum 2 marks

(ii) Award up to **three** marks for correctly explaining the double pump function:

- Blood enters the right atrium/ dark red in colour with little oxygen
- Right atrium pumps blood/ into the right ventricle
- The right ventricle pumps / through the pulmonary artery/ to the lungs
- From the lungs the blood returns/ to the left atrium
- The left atrium pumps the blood/ into the left ventricle
- The left ventricle pumps the blood/ into the aorta/ to the body

Accept the above plus other suitable examples.

In order to obtain the maximum marks candidates must clearly identify at least **three** of the stages identified above.

maximum 3 marks

- 3 (a) (i) Award up to **two** marks for **each** correctly described example of risk assessment. **One** mark to be awarded for identifying the accident and **one** for the correct action that should be carried out.

Examples include:

- Games: being kicked in the shins/that the correct equipment is being worn, for example, shin guards in soccer
- In gymnastics: falling or tripping between the mats/ that the correct equipment is being used and that it is in a safe condition eg, Mats
- In dance: to avoid cuts/ that jewellery is checked and removed and that appropriate clothing is being worn
- In athletics: to avoid cut legs/ that the landing areas are checked for sharp objects and removed before use
- In swimming: impact injuries through falling/ that proper movement around the pool is ensured such as no running
- In outdoor and adventurous: possible hypothermia/ that environmental factors are taken into consideration, such as weather forecasts checked and appropriate clothing is provided

Accept the above plus any other suitable examples.

maximum 2 X 2 marks

- (ii) Award up to **two** marks for correctly identifying that:
- A sprain is the overstretching or tearing or damage to **ligaments or joint**
 - A strain is the overstretching or damage to a **muscle**

Award **one** mark **maximum** for being able to identify between the muscle and the joint but not correctly identifying which is which.

maximum 2 marks

- (b) (i) Award *up to* **two** marks for **each** different, correctly *explained* advantage of using weight training.

Examples include:

- It is a convenient way to improve muscular strength/ using free standing weights allows overload to take place quite easily using high weights with low repetitions
- It is a convenient way to improve muscle tone/ specialist machinery allows performers to use high repetitions and low weights conveniently
- There are now a great many specific weight training gyms/ facilities/ equipment available/ this allows for easy and convenient access to specialist equipment

Accept the above plus any other suitable examples.

maximum 2 X 2 marks

- (ii) Award up to **two** marks for a correct answer:
- Repetitions are the number of times the weights are actually used/moved
 - A set is a group of repetitions

Award a maximum of **one** mark for being able to differentiate between the two but not identify which is which.

Accept the above plus any other suitable examples.

maximum 2 marks

- (c) Award **one** mark for correctly stating what fatigue is and **one** mark for the cause and **one** further mark for stating the effect on a performance

Examples include:

- Gymnastics: fatigue is a feeling of extreme tiredness/ caused by over-exertion or prolonged physical activity/ which leads to a drop or decrease in the level of performance
- Soccer: fatigue is a feeling of extreme tiredness/ caused by over-exertion or prolonged physical activity/ which leads to a drop or decrease in the level of performance or results in a player being substituted to prevent this

Accept the above plus any other suitable examples.

maximum 3 marks

- 4 (a) (i) Award up to **three** marks for a correct response. Award **one** mark for stating the type of drug taken to improve some aspect of their performance, **one** mark for stating the effect (why) it would have and **one mark** for describing how (what) the performance would improve. Note that the drug selected must match the sporting example given.

Note that the following list is the latest set of banned drugs:

- S1 – anabolic agents
- S2 – hormones and related substances
- S3 – beta-2 agonists
- S4 – agents with anti-estrogenic activity
- S5 – diuretics and other masking agents
- S6 – stimulants
- S8 – cannabinoids
- S9 – glucocorticosteroids

Prohibited methods were listed as:

- M1 - Enhancement of oxygen transfer
- M2 – chemical and physical manipulation
- M3 - gene doping

Substances prohibited in particular sports were listed as:

Examples include:

- Taking anabolic steroids/ would enable the performer to train longer and harder/ therefore improving their overall performance when competing
- Taking beta blockers/ have the effect of calming and controlling the heart rate/ therefore benefiting performers in events such as shooting when a steady aim is an advantage
- Taking diuretics/ reduces excessive body fluids and keeps weight down/ therefore assisting performers in events such as gymnastics where being light is an advantage

Accept the above plus any other suitable examples.

maximum 3 marks

- (ii) Award up to **two** marks for correctly describing harmful effects.

Examples include:

- Steroids – liver disorders/ heart disease/ sexual problems/ physique problems/ behavioural effects. Females can take on male characteristics/ such as facial hair. Plus other described examples linked to liver disorders/ heart disease/ physique problems/ behavioural effects
- Diuretics – excessive weight loss/ dietary imbalance/ rapid water loss/and therefore dehydration/ to aid water loss
Plus other described examples linked to excessive weight loss/ dietary imbalance/ dehydration
- Beta blockers – affecting the heart rate/ by slowing it down unnaturally and therefore affecting the normal healthy pulse rate/ and lowered blood pressure

Accept the above plus any other suitable examples.

maximum 2 marks

- (b) Award up to **two** marks for each correct description of the effect of each factor. There must be a description not just a stated effect (**one** mark maximum).

Examples include:

- (i) Motivation – the level of performance could increase/ as a result of a desire to win for either intrinsic or extrinsic reasons (max 2 marks)
- (ii) Boredom – the level of performance is likely to decrease/ as a result of the individual being disinterested, distracted, lacking in concentration, inattentive and generally not prepared to fully take part (max 2 marks)
- (iii) Anxiety – the level of performance could increase/ as a result of increased arousal heightening awareness. The level of performance could decrease/ as a result of the performer becoming very nervous/ worried/ concerned/ nervous which would all lead to a less efficient performance (max 2 marks)

Accept the above plus any other suitable examples.

maximum 3 X 2 marks

- (c) Award up to **four** marks for a correct response. A development has to be **stated** for **one** mark, an actual **example** must be given for **one** mark, and up to **two** further marks for identifying how it is used or the benefit.

Examples include:

- The use of instant video replays/ in a cricket match/ allows a third official to review a play / and make a decision
- Infra red beams / in tennis / which can detect objects crossing them/ allows officials to tell / if balls are in or out
- Tracking devices / in tennis or cricket / which can track the flight or direction of a ball/ shows where a ball would land or hit an object

Accept the above plus any other suitable examples.

maximum 4 marks

- 5 (a) (i) (ii) and (iii) Award up to **two** marks for **each** correctly identified and **explained** example. Award **one** mark for the identified benefit and **one** further mark for the appropriate example which must include how it has led to a better level of participation or performance.

Examples include:

- Raised fitness levels/ through taking part in regular physical activity/ undertaking the exercise training programme/ fitness levels have increased
- Undertaking different roles such as an official/ has given a better understanding of the rules/ and therefore making less mistakes
- A greater knowledge of health and fitness/ helping contribute to being fitter/ and therefore able to take part more effectively

Accept the above plus any other suitable examples.

maximum 3 x 2 marks

- (b) (i) Award up to **three** marks for a correct response. Award **one** mark for the example of the role model **improving performance** and up to **two** more marks for the explained example.

Examples include:

- A top level rugby player such as Jonny Wilkinson/ can demonstrate good skills within a game/ these can be observed or even recorded/ and a performer can copy them

Accept the above plus any other suitable examples.

maximum 3 marks

- (ii) Award up to **three** marks for a correct response. Award **one** mark for the example of the role model **improving participation** and up to **two** more marks for the explained example.

Examples include:

- A top level soccer player such as Wayne Rooney/ can be playing a game at a top level/ the rewards in terms of financial gain etc./ would encourage other people to take part as well

Accept the above plus any other suitable examples.

maximum 3 marks

- (c) (i) Award **two** marks for a correct response. Award **one** mark for identifying how family can influence to **increase** the level of participation and **one** further mark for a suitable example of this taking place.

Examples include:

- A family member such as a parent could help with transport/ this would enable you to get to sporting events, training etc.
- A family member could provide financial help/ this would enable you to pay for equipment, training etc

Accept the above plus any other suitable examples.

maximum 2 marks

- (ii) Award **two** marks for a correct response. Award **one** mark for identifying how family can influence to **decrease** the level of participation and **one** further mark for a suitable example of this taking place.

Examples include:

- A family member such as a parent could be reluctant to provide PE kit or equipment/ this would make it difficult for a child to participate
- A family member may have had a poor experience in PE when they were at school/ this might lead to them discouraging them from participating fully

Accept the above plus any other suitable examples.

maximum 2 marks

- (d) (i) Award up to **two** marks for a correct answer. Award **one** mark for correctly explaining an advantage and **one** mark for a correct example

Examples include:

- More money or revenue could be received/ through receipts for ticket sales/ increased level of tourism/ high levels of sponsorship money
- Greater chance of success for home performers/ greater levels of support and not having to travel so far could advantage British performers
- Regeneration
- Legacy

Accept the above plus any other suitable examples.

maximum 2 marks

- (ii) Award up to **two** marks for a correct answer. Award **one** mark for correctly explaining a disadvantage and **one** mark for a correct example.

Examples include:

- Higher levels of taxation/ to help pay for the facilities, road and rail links etc
- Greater expense/ to help pay for the high levels of security which would be necessary
- Risk of being a terrorist target

Accept the above plus any other suitable examples.

maximum 2 marks

- 6 (a) (i) Award up to **three** marks for a correct answer. Award **one** mark for the correct and suitable example, up to **two** marks for **describing** the **example** chosen.

Examples include:

- Football/ because this is a high profile sport in the media/ which makes it popular with sponsors/ who are able to advertise their products through their sponsorship deals/ income to the sport/ develop grass roots/ more competitions

Accept the above plus any other suitable examples.

maximum 3 marks

- (ii) Award up to **three** marks for a correct answer. Award **one** mark for the correct and suitable example, up to **two** marks for **describing** the **example** chosen.

Examples include:

- Snooker/ has become less popular as a spectator sport/ since the tobacco sponsorship was withdrawn/ as due to its declining popularity is not an attractive proposition to sponsors who are less likely to become popular through being associated with it/ the sport therefore has less income for development

Accept the above plus any other suitable examples.

maximum 3 marks

- (iii) Award up to **three** marks for a correct answer. Award **one** mark for the correct and suitable example, up to **two** marks for **describing** the **example** chosen.

Examples include:

- Tobacco sponsorship/ because it is clearly dangerous to health/ and sponsoring an activity would encourage more smoking/ would link a sport to an unhealthy habit

Accept the above plus any other suitable examples.

maximum 3 marks

- (b) (i) Award up to **two** marks for a correct answer. Award **one** mark for an example and **one** further mark for describing the example which must relate to spectators being better educated.

Examples include:

- Video replays of action/ showing rule infringements and showing which aspect of the rule was broken/ such as the offside rules in soccer
- Rules explanations/ in breaks in action in events such as cricket/ the 'stumpy' snippets which explained laws of the game in detail

Accept the above plus any other suitable examples.

maximum 2 marks

- (ii) Award up to **three** marks for a correct answer. Award **one** mark for the correct example of the televising of sport affecting attendance and up to **two** further marks for the description relating to the level of attendance. Note that the response can refer to attendance going up or down.

Examples include:

- If a soccer match, or event, is televised live/ people are less likely to go along to watch/ attendance levels will therefore go down as spectators can watch it from the comfort of their own homes
- High profile events such as the Olympic Games/ can give images of high level sport/ which encourage people to go along to sample the atmosphere which is generated by the live event

Accept the above plus any other suitable examples.

maximum 3 marks

- (c) (i) Award up to **three** marks for explaining a positive contribution spectators can make by attending, an **example** must be included.

Examples include:

- They can generate money/ by paying to attend the event/ such as football fans paying to go or even buying season tickets
- They can help a team to achieve/ by cheering on and encouraging their team/ such as football supporters cheering on their own team

Accept the above plus any other suitable examples.

maximum 3 marks

- (ii) Award up to **three** marks for explaining a negative or damaging effect spectators can make by attending, an **example** must be included.

Examples include:

- Creating extra expense for the organisers/ through having to pay for the security and safety/ such as all of the security arrangements which need to be provided at soccer matches
- Putting players off performing well/ by booing or criticising parts of their performance/ such as cricket fans who can put off fielders attempting to make catches
- Discouraging some spectators from attending/ fear of hooliganism or violence/ which could lead to a loss of revenue

Accept the above plus any other suitable examples.

maximum 3 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