

GCSE 2004
June Series



Mark Scheme

Physical Education Specification B Short Course (3587/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.

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 from:

Publications Department, Aldon House, 39, Heald Grove, Rusholme, Manchester, M14 4NA
Tel: 0161 953 1170

or

download from the AQA website: www.aqa.org.uk

Copyright © 2004 AQA and its licensors

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.

The Assessment and Qualifications Alliance (AQA) is a company limited by guarantee registered in England and Wales 3644723 and a registered charity number 1073334. Registered address AQA, Devas Street, Manchester, M15 6EX.

Dr. Michael Cresswell Director General

A1(a) **One** from:

- flexion;
- extension;
- abduction;
- adduction;
- rotation;
- circumduction.

accept ... pronation / elevation / depression/supination;

accept ... bending / straightening/ forwards/ backwards.

(1 mark)

(b)

- physical well-being, eg strong heart, toned muscles

- mental well-being

accept ... fit / free from illness / free from stress/ free from injury/ not overweight/cope with daily tasks

Does not have to include a physical and a mental element.*(2 marks)*(c) **Three** such as:

- | | |
|--|--|
| ▪ skin goes red/vasodilation; | ▪ smelling; |
| ▪ body gets hot; | ▪ shallow breathing/panting; |
| ▪ vital capacity increases; | ▪ slower/deeper breathing in recovery; |
| ▪ sweating; | ▪ blood pressure increases; |
| ▪ breathing rate increases; | ▪ blood flow re-directed; |
| ▪ minute volume increase; | ▪ dehydration (symptoms grouped); |
| ▪ heart rate increases; | ▪ coughing/wheezing/ breathlessness/ |
| ▪ stroke volume increases; | shortness of breath; |
| ▪ cardiac output increases; | |
| ▪ muscles tire / ache; | ▪ cramp; |
| ▪ tidal volume increase; | ▪ stitch; |
| ▪ lactic acid is produced/oxygen debt; | ▪ pick up an injury; |
| ▪ VO ₂ increases | ▪ tiredness/fatigue. |

*- focus on physical rather than mental.**(3 marks)*(d) (i) **one** example such as :

- 100/200 metres track events; sprinting;
- field events;
- major games (in short bursts); accept eg football;
- vaulting + other aspects of gymnastics;
- weightlifting;
- rock climbing.

(ii) in the absence of oxygen (1 mark) by:

- | | |
|-------------------------------------|-----------------------------------|
| ▪ the breakdown of ATP; | (1 mark + 1 mark for description) |
| ▪ via the CP or alactic system; | (1 mark + 1 mark for description) |
| ▪ via the glucose or lactic system. | (1 mark + 1 mark for description) |

*(1 + 3 marks)**(4 marks)*

(e) Why ...

- to maintain strength ...
- to maintain(muscular) stamina ...
- to maintain speed ...
- to maintain suppleness ...
- to maintain muscle tone/tension;
- to maintain shape/definition.

accept ...

... to improve fitness/performance

... to look good;

... to prevent injury;

... to perform daily tasks without tiring. (1 mark)

How ...

- by producing force;
- by repetitive contractions;
- by explosive contractions/responses
- by relaxing/stretching

accept...

...by exercising/training;

...by warming up/cooling down;

...by weight training.

(1 mark)

NB. It would be acceptable to answer from the negative perspective VIZ if not in good condition, thenetc.

Both parts of the question must be answered to gain full marks.

(5 marks)

A2

(a) **One** such as:

- referee;
- umpire;
- timekeeper;
- scorer;
- judge;
- lines(man)/assistant referee;
- fourth official
- recorder.

(1 mark)

(b) **Two** such as:

- watching live events;
- watching on TV/ Big Screen (live or recorded highlights); (on Sky/on BBC = 1 mark);
- watching on CCTV/watching beamback;
- watching on the internet.

(2 marks)

(c) **Three** such as:

- teaching;
- choreography;
- coaching/training/instructing;
- ground / facility maintenance;
- administering / organising / promoting/agent;
- managing;
- product design / manufacture / marketing / retail;
- journalism/ commentator/ photographer/ cameraman;
- sports science/ researcher;
- physiotherapist/ nutritionist;
- health, safety, security (including lifeguards, stewards).

(3 marks)

(d) *Focus on professional players when performing* by:

- playing by the rules;
- showing good sportsmanship and behaving well;
- respecting the opposition;
- playing to a high standard;
- being successful;
- having a responsible attitude towards both victory and defeat;
- inspiring interest;
- having a fashionable image;

Focus on professional players in another ‘off-duty’ role by...

coaching youngsters (1 mark); undertaking engagements/ appearances/ endorsements (eg charity work or writing articles) including ambassadorial roles (1 mark).

Not all role models are famous ‘players’ or ‘professionals’; other significant role models include eg parents/friends/teachers who:

- encourage/support
- give up time
- provide finance/transport.

NB answers can come from the negative perspective, if different.

(4 marks)

- (e) Problems such as:
- the sport may not be available locally;
 - the environment may not lend itself to the demands of the sport;
 - the climate may not lend itself to the demands of the sport;
 - transport may be unavailable / expensive / difficult schedules, routes;
 - facilities might not be available at a convenient time;
 - costs may be prohibitive/ personal finances may determine affordability;
 - culture / traditions may forbid / disapprove;
 - schools may not offer the sport;
 - fewer opportunities for women compared to men;
 - logistic difficulties for the disabled;
 - not allowed if below a certain age – may need supervision;
 - family might not approve;
 - nobody available to provide coaching;

NB More than one valid answer can be made from one factor.

(5 marks)

B1

(a) Circulatory responses include:

- rapid rise in heart rate (pulse);
- stroke volume increases;
- cardiac output increases;
- blood pressure increases;
- blood vessels dilate/blood vessels burst;
- circulation of blood increases;
- blood is re-directed to the working muscles;
- blood sugar levels fluctuate;
- potential for heart attack.

Respiratory responses include:

- breathing rate increases;
- hold breath in some cases/activities;
- shallow breathing / panting/wheezing;
- vital capacity increases;
- other respiratory volumes increase;
- rate of gaseous exchange increases;
- more oxygen taken into the bloodstream;
- more carbon dioxide taken out of bloodstream.

(b) Advice to someone beginning an exercise programme might include:

- have a medical check up;
- take advice from the doctor;
- have a fitness assessment;
- follow the advice from the instructor supervising the programme;
- wear the correct clothing / use quality equipment;
- join a club /fitness centre;
- have a training partner;
- choose a suitable activity;
- make it interesting/enjoyable;
- devise a plan - set targets
 - realistic expectations;
- don't overdo it/overload carefully;
- start gradually / progress steadily;
- include rest intervals;
- monitor pulse;
- warm up / cool down;
- consider dietary habits;
- avoid/restrict drug taking (tobacco/alcohol);
- maintain water/fluid balance.

NB. All parts of the question must be answered to gain full marks (13 + 1 + 1)

(15 marks)

B2

(a) Family can encourage/support participation by:

- being a role model;
- playing;
- fostering a tradition or ethos of activity within the family (including aspects of culture);
- watching live and recorded sport;
- talking about sport;
- providing/keeping books etc on sport to read;
- allowing a child to play.
- paying for kit and equipment;
- providing transport;
- going to watch the child play;
- providing the first teaching, or later coaching;
- managing the local team/club.

Friends can encourage participation because:

- they play, or spectate, so you do...peer pressure/persuasion.

NB. The answer may be approached from the opposite perspective (if different)... that negative attitudes and actions by family and/or friends discourage participation.

(b) Through a variety of media (eg. T.V., radio, internet, papers) participation is encouraged by:

- informing people through sport coverage;
- educating people through a variety of features provoking thought and study;
- publicising sport to a wide audience – peak viewing times;
- motivating people into action through coverage of major events of interest;
- stimulating people's interest through reports and previews of a range of physical activities;
- entertaining people and hence inspiring participation to higher levels;
- creating role models who stimulate interest and participation.

NB. The answer may point out ... that nil, negative, or even too much coverage of sport can have a discouraging effect on participation.

NB. All parts of the question must be answered to gain full marks (13 + 1 + 1)

(15 marks)

MARKING CRITERIA FOR QUALITY OF WRITTEN COMMUNICATION
--

3587 /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.	2 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