



General Certificate of Secondary Education

Physical Education *Specification B*

3582/W

Mark Scheme

2006 examination – June 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.

A1

- (a) **one** from:
- ball and socket; accept “ball” or “socket”
 - hinge;
 - pivot;
 - gliding;
 - condyloid;
 - saddle;
 - synovial;
 - freely moveable;
 - fixed/immoveable. (1 mark)
- (b) **two** such as:
- biceps;
 - triceps;
 - pectorals;
 - abdominals;
 - intercostal;
 - deltoids;
 - trapezius;
 - latissimum dorsi;
 - heart/cardiac;
 - brachialis. (2 marks)
- (c) **three** such as:
- the brain;
 - CNS;
 - PNS;
 - the spinal cord/spine;
 - motor nerves;
 - motor end plates;
 - sensory nerves;
 - synapses;
 - sight senses/receptors/eyes;
 - sound senses/receptors/ears;
 - touch senses/receptors;
- accept* nerves.
accept neurones. (3 marks)
- (d) (i) resistance in the cardio-vascular system (one mark) to the flow of blood round the body (one mark).
force of the blood (one mark) passing through an artery (one mark)
accept a measure of blood flow/ease at which blood flows around the body.
a measure of the blood flow through an artery = 2 marks.
do not accept the speed at which blood travels/how fast blood travels.
- (ii)
- blood pressure goes up during physical activity;
 - blood pressure stays low/is lowered in the long term. (2+2) (4 marks)

- (e) reasons such as ...
- to maintain circulation;
 - to maintain body temperature;
 - to maintain (normal) body function;
 - to transport oxygen;
 - to transport nutrients;
 - to transport hormones;
 - to keep blood sugar levels up;
 - to remove wastes; (sweating/urinating)
 - to prevent heat stroke;
 - to prevent cramp;
 - to prevent de-hydration; (accept dizziness/nausea/fatigue/loss of concentration)
 - for body systems to function efficiently/ to maintain chemical reactions.

maintain by ...

- drinking fluids before an activity;
- drinking fluids during an activity;
- drinking fluids after an activity;
- drinking regularly;
- drinking fluids during a break.

(3+2)/(2+3)/(4+1) (5 marks)

A2

(a) **one** such as:

- fartlek training/speed play;
- weight training/lifting;
- circuit training;

accept a description of interval training.

accept shuttle running/pyramid running.

(1 mark)

(b) any **two** such as:

- improves aerobic stamina;
- increases red blood count;
- increases O₂ carrying capacity;
- increases O₂ uptake/VO₂ max;
- improves running times/speed;
- improves jumping distances;
- improves throwing distances;
- to acclimatise the body for competition at high altitude.

accept improve performance/fitness.

accept improve respiratory efficiency.

(2 marks)

(c) **three** such as:

- bright sunshine impedes vision;
- fog impedes vision;
- heavy rain waterlogs playing environment;
- lightening makes conditions unsafe;
- damp/humidity alters air resistance/the movement of projectiles;
- humidity impedes dispersal of heat/sweating;
- ice alters contact/friction on skis;
- too much/no snow, can't ski;
- ice endangers footwork;
- too much wind/no wind so can't sail;
- cold hinders efficiency of muscles;
- cold hinders manipulation of equipment;
- heat hastens dehydration/exhaustion;
- rained heavily...pitch flooded = no game;
- raining so you don't go out for a run;
- river swollen = white water more challenging;
- starts to rain so play is curtailed/abandoned as unsafe.

(3 marks)

(d) (i) **two** from:

- agility;
- balance;
- co-ordination;
- reaction.

(ii) timing is important when ...

- hitting the ball with the bat in cricket;
- exchanging the baton in an athletics relay take-over;
- going about in sailing;
- performing release and catch moves on gymnastic apparatus;
- partner dances/timing with music;
- overtaking in motor racing.

Two examples of striking from the same NC area of games = 1 mark

NB not examples linked to co-ordination/reaction.

(2+2) (4 marks)

- (e) improve performance by ...
- enhancing muscle development;
 - reducing body weight;
 - reducing pain;
 - recovering from injury quickly;
 - increasing competitiveness/aggression;
 - calming the nerves;
 - becoming more alert/feeling better/buzz/confidence;
 - working/training longer;
 - working/training harder;
 - working/training more often.

NB **not** blood doping.

1 mark for effect with an extra 1 mark for outcome

(5 marks)

A3

(a) a person who coaches/teaches/choreographs/officiates/manages/instructs/captains a group of people or team. (1 mark)

(b) **two** such as:

- physiotherapist/osteopath;
- psychologist;
- research scientist/designer of sports equipment;
- nutritionist/dietician;
- masseur;
- a personal trainer;
- a fitness coach/instructor.

accept a coach/a club doctor (not doctor)/a drug tester/a PE teacher/a PE lecturer.

(2 marks)

(c) **three** such as:

- fair play – don't attempt to cheat;
- assisting an opponent/colleague in the event of injury/potential danger;
- shaking hands before and after a competition; (including 3 cheers and clapping)
- accepting decisions;
- calling a 'let' in a disputed decision;
- no time wasting;
- accepting victory and defeat without arrogance or resentment;
- thanking officials;
- kicking ball out of touch when someone is injured;
- walking in cricket;
- admitting a foul in snooker.

NB not gamesmanship.

(3 marks)

(d) why? ... because there are:

- more sports available to females;
- more competitions/events/leagues available to females;
- more coaches available to females;
- more role models available to females;
- more opportunities at school available to females;
- changes to lifestyle;
- more encouragement available to females;
- more times available to play due to female/male role changes/traditions;
- more favourable attitudes towards female participation/equality for women;
- well publicised/promoted campaigns to increase female participation;
- women's only sessions in clubs/centres;
- changing attitudes/ambitions amongst women;
- increased chance of sponsorship for elite women athletes/earning money;
- more female sports coverage on TV/media;
- more childcare available.

(4 marks)

- (e) examples could be taken from sports where scores/ results are determined by judges as in gymnastics, skating, combat sports, diving, trampolining:
- moves are given a difficulty rating or tariff;
 - errors attract a pre-determined deduction;
 - final result is the average of a team / panel of judges;
 - most extreme scores (highest and lowest) are disregarded;

examples could be taken from sports where scores/ results may be influenced by decisions taken as games and athletics:

- not being biased;
- consistently applying the rules;
- playing an advantage;
- consulting with assistant officials;
- using the third umpire/ video referee;
- using technology such as ‘cyclops’;
- using the photo finish;
- being in a good position for viewing incidents;
- being qualified;
- attending training/ refresher courses;
- stewards enquiry;
- checking equipment e.g. weights of throwing implements;
- weight categories in boxing;
- checking rule compliance;
- referees/assessors.

(5 marks)

A4

(a) **one** such as:

- Aintree;
- Silverstone;
- Twickenham;

Crucible	Lords
Don Valley (Sheffield)	Meadowbank
Gateshead	National Indoor Arena
Headingley	Old Trafford
Millennium Stadium	Oval
Trent Bridge	Wembley
Wimbledon	

- **one** of national sports centres, such as:

Crystal Palace	Plas Menai
Lilleshall	Cumbrae
Holme Pierrepont	Glenmore Lodge
Bisham Abbey	Inverclyde
Plas Y Brenin	Tollymore
Manchester Velodrome	

(1 mark)

(b) **one** advantage such as:

- could be a prestigious facility/high capacity;
- could attract major national/international events;
- could inspire best standards;
- maximise safety;
- could encourage patriotism.

one disadvantage such as:

- could only be accessible on one geographical area;
- could create traffic problems;
- expensive to build;
- could be idle for long periods;
- could be overused at key periods.

(2 marks)

(c) **three** such as:

- the local authority/council (leisure services);
- sports council;
- a local school (sports association);
- college/university;
- the local governing body of a particular sport;
- a local voluntary association (scouts, cadets, youth clubs);
- a local voluntary community association;
- a local club (academy of a professional club);
- a local private/amateur club;
- police/fire services;
- a commercial company.

(3 marks)

- (d) Ladder competitions can be organised in such a way that they
- offer an appropriate level of ability competition;
 - provide immediate promotion;
 - provide easy to understand rankings;
 - provide clear directions about how to progress;

League competitions can be organised in such a way that they

- produce fair results over time;
- provide the opportunity to make amends for mistakes;
- are good for consistent performers;
- offer a variety of formats e.g. round-robins;
- can offer ‘play-offs’;
- can accommodate large numbers.

Knock-out competitions can be organised in such a way that they

- constitute the final phase in a round-robin tournament;
- randomly draw *teams* each round....winner goes to next round, loser goes out;
- seed certain *teams* in order to spice up the final rounds;
- draw *teams* for round one only, seeding determines opposition thereafter;
- have a secondary draw for losing *teams*;
- determining how winners will be derived from a tied match;
- hold preliminary rounds before the higher quality *teams* join the match draw;
- encourage positive play to get a result;
- offer an element of surprise/risk/David v Goliath.

Can answer in negative e.g. knock outs mean you can be out after one game.

Max 1 mark for naming a competition type.

(4 marks)

- (e) how? by:

- selling broadcasting rights;
- arranging sponsorship deals;
- selling advertising space;
- selling merchandise (programmes etc);
- selling shares;
- selling match tickets/season tickets/entrance fees;
- hiring out sports/conference/catering facilities/stadium tours/bar receipts;
- winning prize money;
- setting up series of fund-raising schemes relating to gambling;
- minor ownership schemes;
- selling other players;
- competition fees/match subscriptions/membership fees;
- donations/legacies/gifts/trusts/collections;
- bank loans.

(5 marks)

B1

- (a) improving general physical fitness by:
- exercising regularly;
 - exercising above the training threshold;
 - minimum 30 minutes per session;
 - minimum 2/3 sessions per week/more often;
 - including work on all the ‘S’ factors;
 - including work on all the areas of the body;
 - including work with aerobic and/or anaerobic benefits;
 - including activities of a general overall body conditioning nature;
 - including activities/exercises of a specific nature (where there may be need for a temporary focus);
 - including training methods in variety;
 - monitoring and recording work via H. Rate/times distances/numbers of reps/weight poundages;
 - take rest/sleep in conjunction with exercise;
 - making a change in lifestyle involving exercise, e.g. walking instead of taking the car;
 - taking part in some sort of activity, e.g. dancing, swimming, running;
 - carrying out daily tasks e.g. walking the dog, gardening;
 - going to/joining a club, class or sports centre/gym;
 - healthy/balanced diet – reference to food, alcohol or smoking. *(max 1 mark each)*
- (b) avoiding injuries by:
- warming up;
 - cooling down;
 - displaying good technique;
 - maintaining/improving the appropriate ‘S’ factors;
 - wearing appropriate clothing/footwear;
 - wearing protective clothing/equipment;
 - remove jewellery/tie back hair/tie shoe laces;
 - using quality equipment;
 - playing in a safe environment/surfaces;
 - playing in appropriate weather conditions;
 - preparing mentally;
 - showing commitment and effort;
 - controlling emotions (pressure/stress);
 - following rules (fair play);
 - accepting decisions;
 - planning tactics;
 - respecting the activity, the contest, the opponent;
 - don’t overdo it/don’t take risks/take rests;
 - comparable competition – age group/ability;
 - appropriate supervision – qualified officials/coaches;
 - take notice/advice from an appropriate source;
 - balanced diet.
- NB Both parts of the question must be answered to gain full marks. *(15 marks)*

B2

(a) sport and physical activity should be part of leisure time because of the social reasons:

- to play with family;
- to meet friends/socialising;
- to make friends;
- to occupy spare time purposefully;
- to set a challenge/sense of danger;
- to provide a mental focus/an interest;
- to provide enjoyment/fun/excitement;
- to provide a focus for chat/discussion/debate.

sport and physical activity should be part of leisure time because of the health & fitness reasons:

- to maintain fitness; (to keep fit and healthy = 1 mark)
- to contribute to good physical health/feel good/look good to maintain or reduce shape;
- to keep the mind alert/fresh/a distraction from routine; viz mental health;
- to complement sedentary work style;
- as an outlet for energy/stress;
- as a means of relaxation.

(b) Sport and physical activity can be promoted by groups such as Sport England, parents, schools and others by:

- making use of star performers as role models;
- encouraging/attracting/publicising major events;
- finding sponsorships;
- providing finance to young talent;
- providing finance to existing talent;
- supporting agencies that provide coaching;
- providing facilities (including crèches), especially specialist facilities for elite sportspeople/disabled;
- contributing to local facilities – both public and private;
- entering into partnerships;
- supporting agencies that provide opportunities such as universities, governing bodies; councils;
- providing information bases/research/access points;
- word of mouth;
- initiating publicity campaigns for target groups;
- initiating publicity networks such as newsletters, magazines, websites;
- maintaining databases of clubs/associations/coaches;
- maintaining a calendar/diary of events;
- ensuring accessible contact names and number;
- advertising in the media (TV, radio, papers);
- (parents) involving family activity;
- providing after school activities/clubs/competitions;
- providing fun days/come and try/open days;
- providing special discount schemes.

(15 marks)

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

B3

- (a) Governing Bodies offer opportunities by:
- setting rules structures;
 - upholding codes of conduct and enforcing discipline;
 - training coaches;
 - providing coaching;
 - providing award schemes/coaching schemes;
 - providing training camps;
 - providing academies;
 - developing training programmes;
 - devising well-defined competitive structures – leagues, knock-outs etc.;
 - providing competition at various levels up to elite level;
 - offering competitions for a variety of groups of people;
 - establishing well communicated fixture programmes;
 - establishing well-publicised calendar/diary/dates;
 - providing officials;
 - awarding prizes;
 - installing development and promotional personnel;
 - providing an advisory/information source;
 - supporting members with advice;
 - providing facilities;
 - raising and distributing funds/sponsorship.
- (b) benefits such as:
- increased interest in sport;
 - positive attitudes inspired by success;
 - greater motivation to actively take part;
 - sense of status;
 - improved facilities for training and competition;
 - improved access to and co-ordination of facilities;
 - employment opportunities;
 - increased number of coaches/officials;
 - increased number of events;
 - raising standards of performance;
 - producing the elite stars of the future;
 - prioritises political support for P.E. and sport;
 - home advantage – support/conditions – for winning medals;
 - legacy of facilities for the future;
 - increased income into general business from visitors;
 - regeneration of deprived areas;
 - new infra-structure.

(15 marks)

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

**MARKING CRITERIA FOR QUALITY OF
WRITTEN COMMUNICATION****3582 /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 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