



GCSE MARKING SCHEME

PHYSICAL EDUCATION

SUMMER 2012

INTRODUCTION

The marking schemes which follow were those used by WJEC for the Summer 2012 examination in GCSE PHYSICAL EDUCATION. They were finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conferences were held shortly after the papers were taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conferences was to ensure that the marking schemes were interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conferences, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about these marking schemes.

GCSE
Physical Education
Summer 2012

SECTION A

Q.1 Video clip of mountain biking

- (a) (i) Identify **three** components of fitness seen in the mountain biking clip. Explain your answer. **[6]**
There should be reference to the clip

Component	Explanation
1. Any appropriate component e.g. cardiovascular endurance	Any appropriate explanation Continuous Legs pedalling
2. Balance	Not falling off
3. Speed/power/agility	Quick movements – jumps Quick change of direction

- (ii) Define each of the Components of fitness identified in 9 (a) (i) **[3]**

Component	Explanation
1. Any appropriate component e.g. cardiovascular endurance	Any appropriate definition Sustained exercise
2. Balance	Maintain equilibrium
3. Speed/power/agility	Appropriate definitions. Don't accept the term speed in the definition.

- (b) (i) Describe in details the procedure for the testing of **two** components of fitness identified in (a) (i). **[5]**

E.g. for multi stage fitness test

- Warm up
- Play DVD from the start
- 20m distance
- Run in time with the beeps
- Stop if Miss three consecutive beeps
- Sports Hall floor only

E.g. speed – 30m sprint

- Measure 30m
- Mark start/finish
- Run
- Time
- Repeat

Other tests might include –agility – Illinois (accept diagrams), balance – Stork Test, endurance – Cooper run

- (ii) Explain why it is important to follow correct procedures when fitness testing. **[2]**

- Reliability - if the test can produce similar results if used again in similar circumstances
- Validity – whether a test measures what it claims to measure
- Injury
- Consistency

Q.2 Netball – Wales V South Africa

- (a) The following are the **four** main fitness components demonstrated in the netball clip.

- Agility
- Speed
- Flexibility
- Balance

Describe how each of these components of fitness are used in the clip. **[4]**

Component of Fitness	Description
Agility	E.g. turning, pivot, dodge
Speed	E.g. moving quickly to the ball
Flexibility	E.g. landing/stretching/ pivoting
Balance	E.g. when shooting

- (b) (i) Identify **one** other physical fitness component demonstrated in the clip. [1]

E.g.

1. Co ordination
2. CV endurance
3. Strength

- (ii) Explain your answer given in (b) (i) [2]

E.g. Hand –eye co ordination, use senses when shooting

..... length of game – recovery from high intensity, maintain skill levels

Stealing balls, long fast throws

.....
.....

Explanation 1 mark

Amplification 1 mark

- (c) (i) Identify **one** method of fitness training that could be used to help in develop speed. Tick (✓) **one** box only. [1]

Interval training ✓
Skill session
Continuous training
Stretching

- (ii) Describe how the method of training you identifies in (c) (i) could improve performance in a sporting activity of your choice. [2]

Application of component to method, Intensity, Duration, Specificity

- (iii) Identify **two** reasons why athletes cool down at the end of a high intensity game. Tick (✓) **two** boxes only. [2]

To socialise
To aid recovery ✓
To remove waste products ✓
To analyse performance
To lose weight

- (iv) Other than cool downs, give **two** other ways athletes can speed up the recovery process. Tick (✓) **two** boxes only. [2]

Listening to music ✓
Eating carbohydrates ✓
High intensity training
Ice baths ✓
Sleeping

- (d) Name **two** ways that netballers could regulate body fat. Tick (✓) **two** boxes only [2]

Exercising ✓
Balanced diet ✓
Having a sedentary life style
Drinking alcohol
Reducing training

Total 16 Marks

- Q.3** (a) (i) Give **two** reasons why companies such as Mcdonalds want to sponsor the Olympic Games. Tick (/) **two** boxes only. [2]

Talent identification
Advertising ✓
Improve performance
Increase accessibility
Improve Sales ✓
Raise money

- (ii) Suggest **two** ways in which **sport** can benefit from having sponsorship. [2]

E.g. training, coaching, facilities, kit, funding, equipment, publicity 1+1 or 2x1

- (iii) Suggest **two** ways, other than sponsorship, in which **sport** can be funded. [2]

E.g. membership, gate money, grants, lottery, merchandising, donations, TV coverage, media, fund raising, sports councils, governing bodies, government.

- (b) Men's and Women's sport should have equal media coverage in the 2012 London Olympics.

Discuss this statement. [6]

Candidates must enter into a debate to Access L3

Level 1 1-2 list type answers

Level 2 3-4 some amplification, no discussion

Level 3 5-6 some discussion

History, tradition, interest, male audience, less sponsorship of women sport, role models or lack of them.

- (c) Discuss why health and fitness clubs have become so popular in recent years.

[6]

Candidates must enter into a debate to Access L3.

Level 1 1-2 list type answers

Level 2 3-4 some amplification, no discussion

Level 3 5-6 some discussion

Health conscious, payment plans, facilities, instruction, privacy, more clubs, fitter longer life, enjoyment, social, mental, obesity, self-confidence, media pressure, PE, link 5x60, extra-curricular.

Total marks 18 marks

Section B

- Q.4** (a) • During low intensity exercise - AEROBIC [1]
- During high intensity exercise lasting between 10 seconds and 3 minutes - LACTIC ACID [1]
- During high intensity exercise lasting up to 10 seconds - ATP-PC [1]
- (b) • Glucose and O₂ [1]
- (c) • Carbohydrate [1]
- (d) (i) B [1]
- (ii) Zones geared to • heart rate • Intensity of Exercise. [1]
This zone is needed when exercise intensity makes body work above 80% MHR. Short bursts of all-out effort, then rest- gives time for body to remove lactic acid. No O₂.
- (iii) D [1]
- (iv) This zone is reached when exercise makes the body work between 60-80% of MHR. Improves CV fitness O₂ present.
- (e) (i) Z [1]
- (ii) • 16 year old – heart rate indicates a dramatic rise – close to MHR and Anaerobic Threshold. Maximum effort. High intensity [1]
- Heart Rate drops and evens out to Resting Heart Rate. Recovery. [1]
- time – short duration

Q.5 (a) (i)

	FAST TWITCH	SLOW TWITCH	
SPEED OF CONTRACTION	QUICK/FAST	SLOW	[1]
FORCE GENERATED	LARGE HIGH	SMALL LOW	[1]
FATIGUE	QUICK NO O ₂	SLOW GOOD O ₂ SUPPLY	[1]

(ii)

	SPORTING EXAMPLE	
FAST TWITCH	ANY POWER, STRENGTH, EXPLOSIVE EVENTS E.g. Sprinter	[1]
SLOW TWITCH	CV EDURANCE EVENTS – Long distance runner	[1]

(b) (i) B [1]

(ii) A [1]

(iii) B – Concentric – muscles shorten as they contract – ends of muscles move closer together. [1]

A – Eccentric – muscles lengthen as they contract under tension – ends of muscles move further apart.

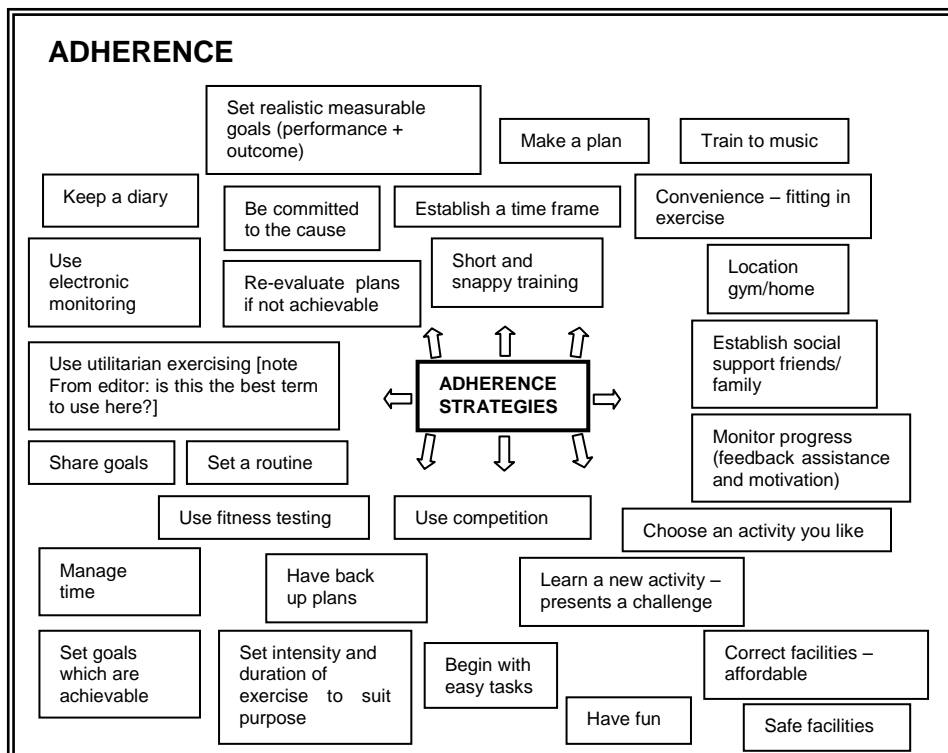
Q.6 (a) The answer to the question should be based on the candidate's knowledge of the SMART principles of Goal Setting.

The answer is C – statistics:-

- Specificity – focus
- Measurable - gauge progress
- Agreed – motivational – ownership – confidence
- Realistic – challenging and attainable – motivational, directional
- Tune phased – focus and motivation to kick in A.B.D. are vague in the sense they do not include enough of the principles mentioned above.

[4]

(b) Adherence strategies:-



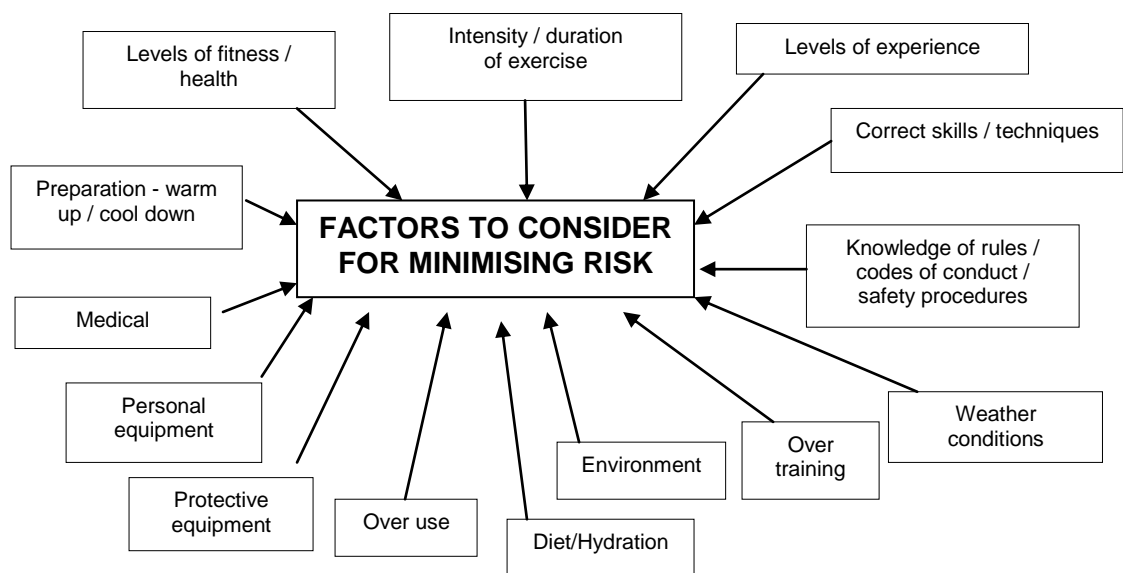
- Q.7** (i) • Flexion **OR** Extension – 3 [1]
- Circumduction – 1 [1]
- Abduction **OR** Adduction – 2 [1]
- (ii) Examples should be specific and show knowledge of each of the 3 movements e.g.
1. Circumduction – end of bones move in a circle e.g. bowling in cricket. [1]
2. Adduction – limbs moved towards the centre line of body [1]
- Abduction – limbs moved away from centre line of body
e.g. • splits • star shape in gymnastics • astride vault
3. Flexion – limbs bending at a joint [1]
- Extension – limbs straightening at a joint e.g. reaching and catching a ball and bringing it in to body, shot putting.

Q.8 This is an APPLIED QUESTION:-



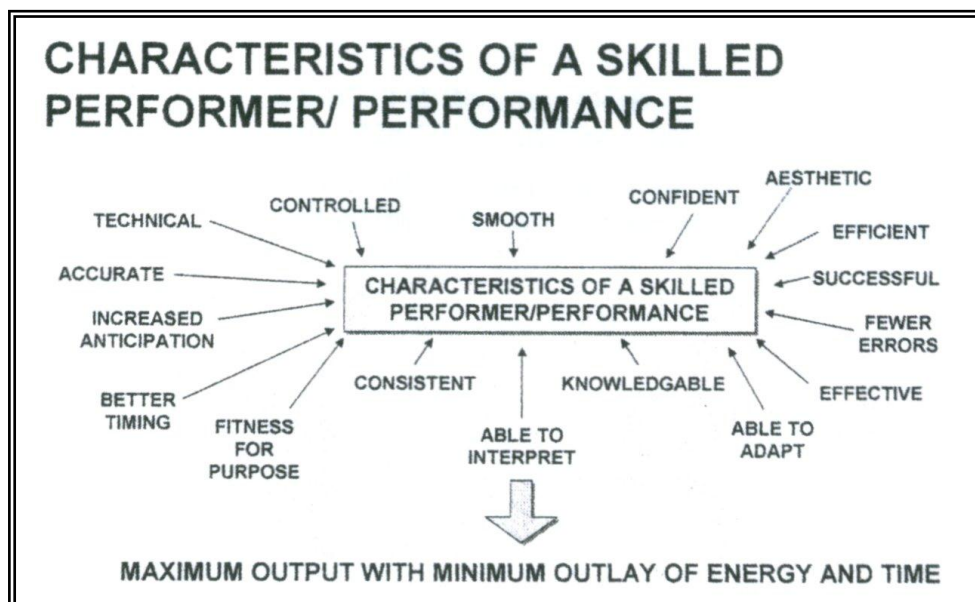
Answers should be SPECIFIC:-

Although it is impossible to prevent injury all the time due to the unpredictable nature of sports and physical activities, it is possible to undertake precautionary steps in order to decrease the likelihood of incurring an injury. Below are detailed the key steps to preventing a sporting injury.



1 x 4 [4]

Q.9



A skilled sporting performance is where sportspersons are better at:

- Using available energy (more efficient, less waste)
- Controlling their actions (smoother)
- Making fewer mistakes
- Seeing what's happening around them (interpretation) – vision
- Anticipation
- Making correct decisions at the right time and quickly
- Improvisation
- Being in the correct place at the correct time
- Seemingly having 'more time'

The more skilful a person is, the more likely they are to be:

- Consistent
- Accurate
- Aesthetic
- Co-ordinated
- Confident
- Successful
- Highly motivated

The question is APPLIED – not just the moving of the characteristics of a skilful performer. The characteristics should be evident through the descriptions used in the named physical activity.

Level 1	1-2	Basic descriptive knowledge and understanding of the characteristic of a skilful performer with no application to the named physical activity.
Level 2	3-4	Better knowledge and understanding of the characteristic of a skilful performer, with some application through the named physical activity.
Level 3	5-6	Well developed answer with high order knowledge and understanding of the characteristics of a skilful performer relevant through use of the named physical activity.

Q.10 The question implies discussion of:-

- Technological development – as shown in diagram
- Technological development in all areas of physical activity e.g. • sporting/ competitive performance • healthy lifestyles
- Impact and any ethical concerns of technical development in physical activity.

Level 1	1-3	Basic knowledge and understanding of the technological development in the area shown in the diagram. One dimensional rather than covering physical activity at all levels. No discussion of any impact or ethical issues.
Level 2	4-6	Fuller knowledge and understanding of the technological developments in the areas shown in the diagram. Better understanding of developments in all areas of physical activity. Some suggestion of any impact or ethical issues.
Level 2	7-8	Full engagement with question. Well develops response to all areas and understanding of impact and



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