



GCSE MARKING SCHEME

PHYSICAL EDUCATION

SUMMER 2015

INTRODUCTION

The marking schemes which follow were those used by WJEC for the SUMMER 2015 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 2015

SECTION A

- Q.1 (a) Descriptions must be of each of the 2 skill-related components identified
e.g. **Agility** – side/stepping/dodging/direction changing - e.g. side stepping.
Speed – quickness – to link the clip in the race for the line. [2 x 1]
- (b) (i) Power definition - SPEED X STRENGTH - ability to contract muscles
with speed and force in one explosive act. [1]
- (ii)
 - The relationship between the action in the clip and power.
 - Beginning his run from a standing start.
 - Driving off one leg in the act of side-stepping.
 - Brushing aside would-be tacklers on his run. (2 x 1 or 1 + 1)
- (iii) Description of explosive movement focussing on intensity.
No mark for definition of power. [3]
- (c) (i) The question asks for the importance of Warm ups/Cool downs for the
players in the clip. However, responses will be in the main, generic.
Better candidates might be able to refer to the players, especially the
demands of rugby.
- WARM UP -
 - Mental preparation (focus).
 - Physical preparation
 - Reduce risk of injury
 - Warming/Cooling Down – recovery – prevents soreness –
maintaining circulation so more O₂ reaches muscles to clear lactic
acid away – decrease body temperature. [2x2]
- (ii) Headgear - shoulder pads, boots.
Correct techniques, adhering to the rules.
Do not accept avoiding tackling. [1]
- (iii)
 - Lack of technique, contacts in different scenarios e.g. at tackle, at
breakdown. Relation to size of players.
 - Knowledge of laws – very important in a physical contact scenario [2]
- [15]

- Q.2 (a) (i) • Cardiovascular Endurance – continuous cycling at a set pace (motor bike) – Heart/lungs – ability to cope with activity over a period of time. [1]
- Local Muscular endurance – continuous cycling at a set pace – the ability to work the muscles (legs and arms) very hard over a period of time. [1]
- (ii) CONTINUOUS. Do not accept activity - cycling. [1]
- (iii) • Specificity • Progression (gradual – as body adapts) Overload (can be attained in 3 ways – FIT – intensity/frequency/duration)
- Max of 2 marks for principles only if not applied to performance. [4]
- (b) (i) • MULTI-STAGE FITNESS TEST.
- 20 metre shuttle runs in time to beeps from a pre-recorded tape.
- Progressive – after each minute time interval between beeps gets shorter
- Fail twice in a row – out.
- Level recorded – checked against a table. [2]
- Any 2 valid points for 2 marks.
- ABDOMINAL CURL TEST.
- EITHER – Abdominal Curl up Test – Timed e.g. 30 secs – How many OR NCF Abdominal Curl Test – No time element – how many per se – in relation to the beat of the tape. [2]
- Any 2 valid points for 2 marks.
- (ii) • VALID – whether a test measures what it claims to measure – is it measured and set against recognised results tables? [1]
- RELIABLE – can the test produce similar results if used again in similar circumstances. Have the correct procedures been carried out? [1]
- (c) • It allows the participant and coach/teacher to identify strengths and weaknesses.
- Measures improvement (if any)?
- Identifies a baseline.
- Enables personalised goals to be set.
- Aids self-motivation.
- Helps in recovery from injury.
- Supports the coach/teacher in selection.
- Monitors success of training programme.
- Allows for adaptation to training patterns.
- Programmes can be tailored to an individual's needs. [4]
- [17]

- Q.3 (a)
- Opportunity
 - Awareness
 - Access
 - Role models
 - Access facilities

Women in Sport –

E.g. To understand what has been done and what should be done – perhaps an understanding of the barriers facing access to physical activities will be mentioned and accepted e.g. lack of time/childcare/money – body image, lack of self-confidence, access to facilities, media coverage, lack of role models.

Also, Initiatives in England and Wales could be mentioned:- Breeze/Back to Netball/Us girls/I will if you will – in England. Climbing Higher/Creating an Active Wales.

There has been an increased and equal opportunity within all sports, especially male-dominated sports (at all levels), playing, administrative, organisational – gender stereotyping in gradually being broken down – increased coverage and profile of women’s physical activities e.g. Netball, Football. Better links now available – post school age.

Crèches available – single sex (female) groups in certain activities helps in body image problems.

Candidates could explain the question from their own experiences – which would be fine.

Disabled in Sport –

E.g. Much has been done recently to raise the profile of sport and physical activity for the disabled. Many National Governing Bodies are actively engaged with provision and opportunity. Integrated sports/adapted sports are now of a higher profile:- Paralympics being the pinnacle – in terms of coverage and awareness. [2x3]

[6]

- Adapted playing equipment e.g. shutes for bowling, bell-balls for partially sighted, variable height posts, nets and baskets
- Adapted rules

(b)

POSITIVE

- promotes sport
- entertainment
- creates role models
- encourages participation
- creates sponsorship
- educator
- informative – fixtures – news – results
- Fundraise – TV rights
- minority sports popularised
- TV Technology – Repeats – Red Buttons etc
- Performance Analysis
- Better coverage if certain sports – glass sided squash courts

NEGATIVE

- sportspeople want to win at all costs
- media pressure on teams, players etc
- Loss of privacy
- TV influences changes in sport – cricket
- over-sensationalistic – just to entertain
- live attendance can drop
- saturation

[6]

LEVELS OF RESPONSE

LEVEL 1 (1-2)

Itemised list with no amplification. Few aspects discussed, with some positive and negatives.

LEVEL 2 (3-4)

There is limited knowledge of the aspects both positive and negatives – however, there is some application and amplification.

LEVEL 3 (5-6)

Developed response with good knowledge, understanding, amplification and discussion. Reasoned conclusions are drawn.

- (c)
- CURRICULUM/AND EXTRA CURRICULAR – variety, challenging, fun, access for all. INNOVATIVE.
Broad, balanced – covering National Curriculum.
 - LINKS WITH CLUBS – gain confidence to join, especially important for females. Opportunities for different roles within physical activity and sport.
 - FACILITIES – variety e.g. pool/squash courts – pupils are more likely to pursue these activities.
 - TEACHERS AND TEACHING:- specialists in certain areas e.g. trampolining. Effective Teaching and Feedback. Teacher’s Personality is also important for engagement by all pupils – praise/motivational.
 - SCHOOL ETHOS - supportive
 - Positive or negative influences

[6]

LEVELS OF RESPONSE

LEVEL 1 (1-2)

Few influences discussed. List type answers with no amplification.

LEVEL 2 (3-4)

There is limited knowledge of the influences – however, there is some amplification.

LEVEL 3 (5-6)

Developed response with good knowledge, understanding, amplification and discussion.
Positive or negative responses are acceptable.

[18]

SECTION B

Q.4 (a)

ISOTONIC CONTRACTION

CONCENTRIC	ECCENTRIC
<ul style="list-style-type: none">• Muscle shortens as it contracts• Ends of muscle move closer together	<ul style="list-style-type: none">• Muscle lengthens as it contracts• Ends of muscles move further apart• Acts to decelerate a joint at end of movement

- (b)
- | | | |
|-------|---------|-----|
| (i) | 1 | [2] |
| (ii) | 2 | [1] |
| (iii) | 4 | [1] |
| (iv) | 3 | [1] |
| (v) | Hinge | [1] |
| (vi) | Tendons | [1] |

[8]

- Q.5 (a) (i) 60% of calculated MHR = $220 - \text{AGE}$ [1]
- (ii) 80% of calculated MHR = $220 - \text{AGE}$ [1]
- (iii) ANAEROBIC TRAINING ZONE [1]
- (iv) AEROBIC TRAINING ZONE [1]
- (b)
 - Helps to train individuals' needs:- present level of fitness and amount of aerobic/anaerobic training needed.
 - Which Training Zone to train in can be identified.
 - Below Aerobic Threshold – no training benefit/recovery.
 - Above Anaerobic Threshold – knowledge needed – shorter training time, longer recovery.
 - Between the Thresholds – Aerobic Training Zone – for endurance – sub. maximal [4]
- (c) O₂ DEBT or anything linked to active recovery. [1]
- [9]

Q.6 (a)

TERM DEFINITIONS	
• SKILL	• BASIC MOVEMENT PATTERN
• ABILITY	• HOW SKILL IS CARRIED OUT
• TECHNIQUE	• INNATE CHARACTERISTIC WHICH FACILITATES MOVEMENT
• PERFORMANCE	• LEARNED ABILITY

[4]

- (b)
- more variables in open skills
 - more decisions to make
 - more information to absorb
 - changing environment
 - opponents
 - adapting to demands of differing situations

[3]

- (c)
- Performer in process of learning new movement pattern.
 - Jerky, slow, deliberate movements.
 - Errors will be made.
 - Much help needed.
 - Many demonstrations needed.
 - Poor Technique.
 - Trial and error.
 - Praise and encouragement prevalent.
 - Inconsistency

[3]

Not mark for identifying cognitive stage.

[10]

Q.7 (a) OUTPUT. [1]

(b)

- Accurately
- Concisely
- Fits the needs of the performer
- Information giving
- Analytically
- Reinforcement
- Truthfully
- Immediately
- Positive – highlighting strengths and ways to improve perceived weaknesses
- Frequency – beware of overloading
- Full feedback – KP and KR
- Motivation

[4]

(c) (i) The ability to cut out all distractions and focus completely on the task. [1]

(ii) E.g. penalty taken in football:- ignoring crowd behind goal, photographers, noise, flag-waving, weather, the score and stage of the game. Any appropriate example. [1]

- (d)
- Goals motivate you to work hard.
 - They help to prepare mentally for a performance, so they know exactly what they are aiming for – focus.
 - Signpost in training – giving direction.
 - Goals give something to check progress against.
 - Goals can make you less anxious and more in control.
 - They can increase confidence.

Links between goals and maintaining motivation (2 x 2) [4]

[11]

Q.8 Type of practice

Whole – complete if simple task. Good for beginners.

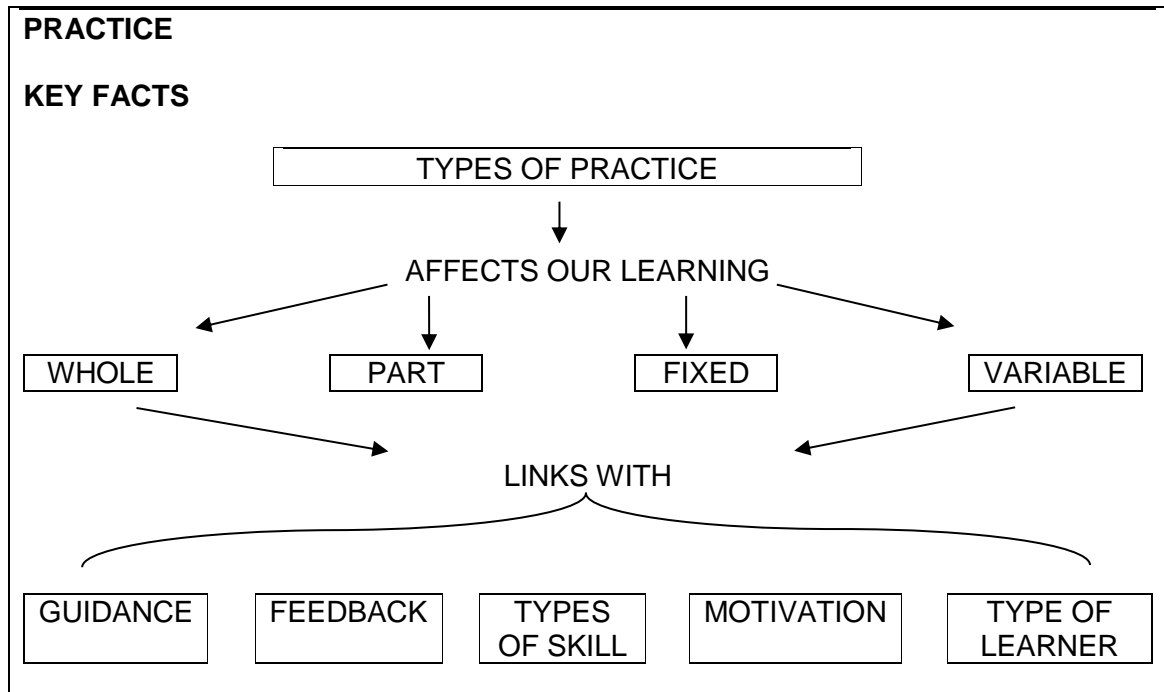
Part – complete – easy to breakdown into parts.

Whole – part – whole – combination

Fixed – repetition – good for closed skills. Beginners or high level performer.

Variable – helps motivation.

Massed – good for advanced or beginners.



[6]

- Nature of the skills involved e.g. open/closed, simple/complex.
- Amount of technical knowledge needed.
- Amount of information performer needs to process.
- Environmental factors
- Previous experiences.
- Personality and how well motivated performers are.
- Expectations/goals/objectives.
- Attitudes
 - Analysis opportunity
 - Good communication

All linked to appropriate practice.

Candidates could discuss the 'mechanics' of the practice itself:-

- The speed and pressure being applied to the practice.
- Practices have to mirror performance conditions with appropriate equipment.
- Appropriate input by coaches at relevant times.
- Recovery/Rest – appropriate to demands of practice.
- Safety issues
 - Size of group
 - Abilities of group – Stages of Learning.

All equally of importance.

- Phases of practice session:- Warm up/tactics/skills/games/warm down.
- Modified
 - Conditioned scenarios.
- Unopposed
 - Passive opposition – active opposition.

Link practice to different examples, to performance, to stages of learning with a justification.

LEVELS OF RESPONSE

LEVEL 1 (1-2)

Little involvement with the question. Lack of knowledge and understanding. Itemised response.

LEVEL 2 (3-4)

Greater understanding of the question and the links that PRACTICE has with the types of skill learners use.

LEVEL 3 (5-6)

Full engagement with the question, high quality knowledge and understanding of all aspects, with links made.

- Q.9
- computers.
 - SMART clothing.
 - Analysis of skin friction – aerodynamic research e.g. Speedo’s AQUA LAB.
 - Digital Imaging and video – puts viewers ‘in the action’ – e.g. X Games – increasing fan base.
 - I.T.:- Mix Radio Frequency tags, global positioning systems, remote cameras and broadband networks – synchronise – Result – fantastic up to date information.
 - Robotic – simulate sports movements e.g. in Japan – ski-ing Robot investigating effects of joint movement on ski teacher.
 - Tennis – Racket Servers.
 - Smart phones.
 - Apps.
 - Smart watches.
 - 3D TV.
 - GPS.
 - Recovery – Ice Baths.

The above points are indicative of the responses expected. any appropriate use of technology can be accepted.

LEVELS OF RESPONSE

LEVEL 1 (1-2)

Knowledge of developments in the areas asked in the question. Itemised, list of technological developments, no amplification.

LEVEL 2 (3-4)

Knowledge of the areas asked for in the question, with amplification of some developments. Some links of technology to improved performance.

LEVEL 3 (5-6)

Full engagement with the question. Good knowledge, understanding and amplification. Strong links of technology to improved performance. [6]



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