



GCSE MARKING SCHEME

SUMMER 2016

PHYSICAL EDUCATION

**PAPER 1 AND SHORT COURSE
4421/01 & 4911/01**

INTRODUCTION

This marking scheme was used by WJEC for the 2016 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was 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 conference was to ensure that the marking scheme was 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' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

GCSE PHYSICAL EDUCATION - SUMMER 2016

SECTION A

- Q.1 (a) Describe how each of the components of fitness are demonstrated in the video clip [4]

Component	Description of when the component is being used
Balance	Staying in the boat / on the seat Not capsizing When standing in middle of boat
Co-ordination	Hands working on different tasks
Strength	Hold onto the boat as it is moving at speed
Agility	Delete boat changing..... Sailors changing from one side of the boat to another

- (b) Name a recognised test for each of the components of fitness below [4]

Component	Test
Balance	e.g. stork test
Co-ordination	e.g. alternate hand throw
Strength	e.g. Grip dynamometer
Agility	e.g. T test

- Must be a recognised test

- (c) (i) Identify a method of training that could improve strength [1]
- Weight training etc. Anything with resistance.

- (ii) Explain, how increased strength could improve performance, using a sporting example of your choice. [2]
- Must match increase in strength to improved performance (Faster, higher, stronger, etc.)
 - Must be linked to a sport e.g. hitting the ball further in golf
 - Max 1 mark if not linked to a sport

- (d) Explain why it is beneficial for a sedentary person to improve his/her fitness. [4]

- Health - heart, HR, reduced risk of CHD
- Reduction in obesity, weight loss
- Lifestyle benefits - mental, social, physical
- Daily tasks can be easier
- Max 1-2 marks for a list, 3-4 marks for an explanation

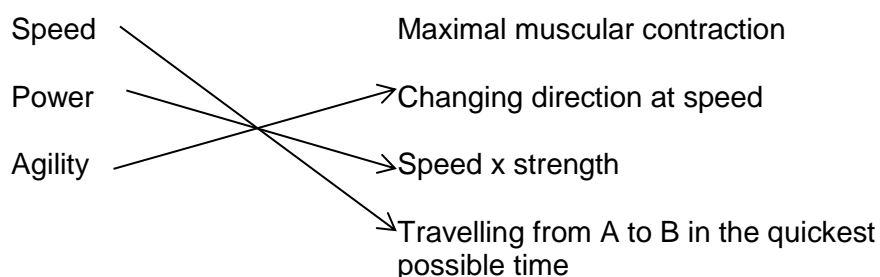
- (e) Explain why it is important to have variety in your training [4]

- Adherence
- Enjoyable, interesting, reducing boredom
- Motivation
- Avoid plateauing – improves performance/fitness
- Environment
- Max 1-2 marks for a list, 3-4 marks for an explanation

- Q.2 (a) Describe how the following components of fitness are demonstrated in the video clip. [3]

Components of fitness	Demonstrate
Speed	closing down dribbling do not accept "running" any relevant response that implies speed
Power	throw in, shot at goal goalkeeper diving any relevant response that implies power
Agility	changing direction when dribbling any relevant response that implies agility

- (b) Match the components of fitness to the appropriate definition [3]



- Max 2 marks if there are 4 arrows

- (c) (i) Identify a method of training that could develop speed [1]
- e.g. intervals/plyometric. Not continuous.

- (ii) Explain how the principles of training below could be applied to the training method identified in c (i). [4]
- Specificity - short, intense interval to develop speed
 - Overload – FITT
 - Max 2 marks for description of principles of training
 - 3-4 marks - must be linked to a method of training

- (d) Describe how you would warm up for a physical activity of your choice [4]

- Gentle exercise
- Increase intensity - progressive
- Mental preparation
- Stretching
- Unit skills
- Relate to an activity [4x1)

Q.3 (a) Research suggests that many people of all ages are not getting enough exercise. Explain how the government could promote a healthy lifestyle. [4]

- Fund initiatives
- Targeted initiatives (media/ campaigns)
- Education – school/ community advice
- Sports development – providing coaches/classes /facilities

1-2 marks for list

3-4 marks for explanation

(b) Discuss whether the taking of performance enhancing drugs should be legalised. [6 QWC]

- Fairness – unfair advantage or fair for all
- Health – bad or could aid recovery
- Reputation - of the sport, individuals, ethics
- Commercialisation – money, pressure, expectation
- Regulation

Level Indicators

Level 1 (1-2)

Candidate gives a list relating to drug taking an elite sport.

Level 2 (3-4)

Candidate amplifies some basic points referring to drug taking and elite performance. Some discussion of the "inevitability" of drug taking.

Level 3 (5-6)

Candidate engages fully in the discussion reasons (+ve and - ve) given to explain why some elite athletes take drugs (including accidental). May provide reasons to explain the inevitability of drug taking or not. Ethics and morality may be discussed/described in the answer.

- (c) Describe the factors that have influenced your participation in sport and physical activity. (6 QWC)

Factors	Influence on participation
School	School teacher Variety of opportunities Development of skills Improved self confidence
Community	Offer coaching Clubs in local town
Sports Development	Opportunities that are not available within school or community Support funding Coach education
Social Networks/Family/Media	Information giving Opportunities to arrange participation Role of adults - TV/parents

Fun, health and well –being, facilities, location, friends and family

Level 1 (1-2)

Candidate lists factors affecting **their** participation.

Level 2 (3-4)

Candidate describes some of the factors influencing their participation in sport/physical activity with some amplification and engagement with the question.

Level 3 (5-6)

Candidate describes in detail the factors influencing their participation in sport/physical activity. (There **may** be linked factors as well as positive and negative factors) +ve e.g. family - support, motivation role needs, full name, transport - ve schoolwork/exams/cost/travel time etc.

SECTION B

- Q.4 (a) Name **two** factors that determine the energy system used during physical activity. [2]
- Intensity of activity
 - Distance/ Duration of activity [2]
- (b) (i) ATP/PC → 60m
 LACTIC ACID → 400m
 AEROBIC → Marathon [3]
- (ii) Place the following exercise characteristics in the correct columns in the table below. [4]
- Aerobic training characterises
- HR between 60 - 80% max (B)
 - Continuous (C)
- Anaerobic training characterises
- Maximal (A)
 - HR above 80% max (D)
- (c) Explain how HR could be used as a guide to sportspersons fitness [3]
- Low resting H.R
 - Lower working HR
 - Quicker recovery
 - Guide to monitor fitness
 - Guide to training [3 x 1]
- Q.5 (a) What is the main function of skeletal muscle? [1]
- movement
- (b) (i) Which muscle group contracts to extend the knee? [1]
- quadriceps (A)
- (ii) Which muscle group contracts to flex the knee? [1]
- hamstrings (B)
- (c) (i) Which muscle has relaxed to enable extension at the elbow? [1]
- biceps
- (ii) Which muscle has contracted to extend the elbow? [1]
- triceps
- (d) Name **four** possible effects of long term exercise on the MUSCULAR SYSTEM. [4]
- Muscles hypertrophy
 - Muscle strength
 - Endurance increase
 - Better muscle tone
 - Muscle fibres increase in size
 - Muscles are able to store larger amounts of glycogen
 - Lactic acid tolerance
 - Stabilise joints
 - Increased capliarisation of muscles
 - Any additional relevant response 4x1

Q.6 (a) Explain the following terms: [2]

Performance goals

- technical/tactical
- encourage development/mastery
- difficult to measure

Outcome goals

- result rather than how it was achieved
- measurable
- specific

(b) Explain how the use of SMART targets could help improve performance. [4]

- Max 1 mark for identifying aspects of SMART
- 1 further mark for amplification
- 3-4 marks for explanation of SMART targets linked to improved performance.

(c) Describe how a coach could motivate a sportsperson to improve his/her performance. [5]

- Praise -
- Criticise
- set goals
- rewards - tangible/intangible
- increase intrinsic motivation – better source of long term motivation
- knowledge of performance
- knowledge of results
- feedback – timely, constructive, accurate, appropriate
- comparisons – with norms/others/themselves 5x1 2x2 +1

Q.7 (a) Which of the following skills would be described as a mainly CLOSED SKILL?
Gymnastic Cartwheel [1]

(b) An OPEN SKILL is mainly:
• A skill involving responding to other players/factors [1]

(c) Name and describe the type of practice you could use to develop an open skill and a closed skill. [4]

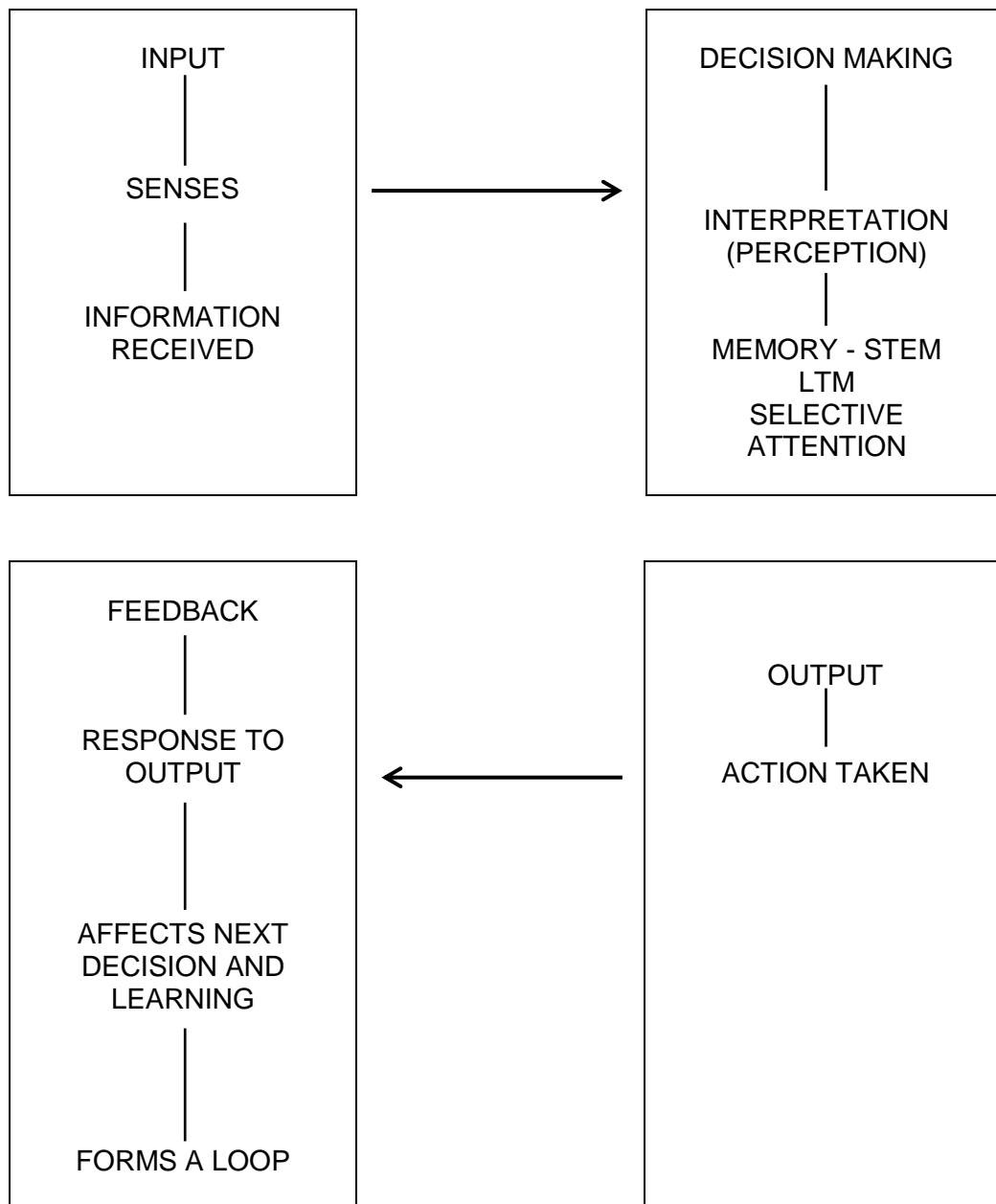
(i) open - variable practice, variety of settings, practice replicates games situations

(ii) closed - fixed practice, repetition

1 mark for naming and 1 mark for describing

Q.8 Processing information has four stages. Explain each stage for processing information in a named skill. [6 QWC]

INPUT, DECISION MAKING, OUTPUT. FEEDBACK



The question has to be answered through using a sporting example, otherwise the response is theory with no understanding of the practical application

Level 1 (1-2) the candidate chooses an activity and gives a basic description of the IP Models reference to a few aspects of the model and is not applied

Level 2 (3-4) the candidate links the activity to the IP Model with some relevant points. All four stages must be mentioned

Level 3 (5-6) the candidate effectively describes the IP Model and amplifies and applies **each** aspect of the model in relation to the chosen skill.

- Q.9 Explain how the performance of a beginner will differ from that of a skilled performer. Use sporting examples to support your answer. [6 QWC]

An APPLIED perspective is important with the use of sporting examples.

To answer the question well candidates would have a working knowledge of how an unskilled performer can cause problems

- wrong place/wrong time
- self-conscious
- wasting energy and tiring quickly
- slows down a performance
- prone to injury
- upset other players / participants success - motivational to progress, enjoyment - success.

Characteristics of a skilled performance:

- consistency
- accuracy
- co-ordination
- smoothness
- aesthetic
- technical model
- timing
- adapt
- confident.

Level 1 (1-2) the candidate **lists** some characteristics of a beginner and a top level performer with few sporting examples

Level 2 (3-4) the candidate selects **some** relevant characteristics of a beginner and a top level performer and compares and contrasts **some** examples

Level 3 (5-6) the candidate enters fully into the question. Differences are supported and highlighted by relevant sporting examples.