



**General Certificate of Secondary Education
(Short Course)
June 2013**

Physical Education 48901

(Specification 4891)

**Unit 1: Knowledge and Understanding for the
Active Participant (Short Course)**

Final

Mark Scheme

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Section A – Part 1 Multiple Choice

Award **one** mark for each correct answer.

1 Which **one** of the following is **not** a responsibility of an organiser of a sports event? *(1 mark)*

Improving participants' fitness levels

2 Which **one** of the following is a positive long-term effect of a healthy active lifestyle? *(1 mark)*

Lower resting heart rate

3 Which **one** of the following is **not** a school extra-curricular activity? *(1 mark)*

Netball lesson

4 Which **one** of the following best describes the frequency element of the overload principle of training? *(1 mark)*

How often you train

5 Maximum heart rate is calculated by: *(1 mark)*

220 minus age

Section A – Part 2 Short answer questions

6 (a) What is meant by the term 'static strength'? Give an example from a physical activity where a performer uses static strength. *(2 marks)*

Award **one** mark for a correct definition of static strength and **one** mark for a correct example from a physical activity.

Static strength

- greatest amount of strength that can be applied to an immovable object
 - ability of a muscle to exert a force without changing length
- Accept* the strength you need to push or pull a stationary object or hold a heavy weight

Activity examples include:

- Holding the weight above your head in weight lifting
- Point of engagement in a rugby scrum
- Holding a balance in gymnastics

Accept the above plus any other suitable response.

NB Examples need to be qualified.

6 (b) Using an example from a physical activity, explain what is meant by the term 'co-ordination'. *(2 marks)*

Award **one** mark for an appropriate example from a physical activity and **one** mark for a correct explanation of coordination.

Activity examples include:

- serve in tennis/linking all the parts of the action
- a drop goal in rugby/synchronising the movement of the hands dropping the ball with the kicking leg
- linking the stages in the triple jump in athletics/into one efficient smooth movement
- performing a layup shot in basketball/the ability to link the actions together

Accept the above plus any other suitable response.

Coordination is the ability to:

- link all the parts of a movement (into one efficient smooth movement)
- synchronise the movement of two or more body parts

NB Examples need to be qualified.

7 Weight training is an effective training method.

7 (a) State **one** advantage of using weight training to improve fitness. (1 mark)

Award **one** mark for stating an advantage of weight training to improve fitness up to a maximum of one mark.

- Improves (muscular) strength
- Improves muscular endurance
- Improves (muscular) power
- Increases muscle bulk or mass or size
- Improves muscle tone
- Can be used as part of a recovery programme from injury
- Improves flexibility

7 (b) Describe the relationship between a repetition and a set in weight training. (2 marks)

Award up to **two** marks for describing the relationship between a repetition and a set.

- Repetitions are the number of times an individual action is performed.
- A set is a group of repetitions.
- The relationship described using an example, eg 12 reps in one set.

8 (a) What is meant by the term 'motivation'? (1 mark)

Award **one** mark for stating what motivation is.

- Motivation is the drive to succeed or the desire (want) to achieve something.
Accept inspired to do something.

8 (b) Explain how motivation can be used to improve performance in a physical activity. (2 marks)

Award up to **two** marks for the example and explanation of how it improves performance.

- Motivation focuses the performer or improves concentration/ which allows the performer to perform more accurately
- Motivation makes the performer try harder/ are more likely to succeed.

9 Explain the role of the skeletal system in producing movement of the body. <i>(5 marks)</i>

Award up to **five** marks for a full explanation of the role the skeletal system plays in producing movement.

- The skeletal system allows movement at a joint/ the shape and type of the bones determine the amount of movement/ short bones enable finer controlled movements/ long bones enable gross movement
- The different joint types allow different types of movement/ hinge joint allows extension and flexion/ ball and socket allows flexion, extension, abduction and adduction and circular motion
- The skeleton provides a point of attachment for muscles/ when muscles (contract) they pull the bone

Section B – Questions based on the preliminary material

10 (a) Identify **and** describe a suitable training method to help Sarah achieve her ambition of representing the district at cross country running. *(2 marks)*

Award **one** mark for the training method and a further mark for the description.

- Continuous training/ (running or swimming or cycling) for an extended period of time (at a moderate intensity)
- Fartlek training/ (extended moderate exercise) with some variation in pace or terrain
- Interval training/ intense periods of work followed by less intense periods of work or rest.
Circuit training/ different exercises carried out for a set period of time or number of repetitions with periods of rest.

10 (b) As part of her GCSE Physical Education course, Sarah has learned about training zones.

Explain how Sarah could use her knowledge of training zones to help improve her performance in cross country running. *(4 marks)*

Award up to **four** marks for a full explanation of how training zones could improve her cross country running.

- Cross country is an aerobic or endurance activity/ she would need to go above the aerobic threshold/ which is 60-80% of maximum heart rate/ for at least 15 minutes/ at low to moderate intensity/ resulting in a more efficient cardiovascular or cardiorespiratory or circulatory system/ able to run more quickly.
- Anaerobic training zone, 80-90% of maximum heart rate/ is used for uphill sections or sprint finish/ 60 seconds max/ at high intensity/ resulting in increased lactic acid tolerance.

10 (c) School influences have an impact on an individual's involvement in physical activity.

Identify **and** explain **three** ways in which Sarah's experiences in secondary school may have helped to improve her performance in her favourite activities. (6 marks)

Award up to **six** marks for identifying and explaining the influence the school may have had on improving her performance in her chosen activities. Award **one** mark for the factor and **one** mark for the explanation (3 x 2).

- Through providing (core) PE lessons/ which may have increased her skill level.
- Through providing good quality facilities/ which may have enabled her to train effectively.
- Through providing extra-curricular opportunities/ for additional practise or increasing the range of activities she may have been exposed to.
- Positive staff attitudes/ which may have provided motivation and encouragement to maintain interest.
- Provide opportunities through links with local clubs and organisations/ to provide more specialist training.
- Provide opportunities to use off site specialist facilities/ to broaden the range of activities offered
- Provide opportunities through different roles/ to give a greater understanding of the activity
- Through providing qualifications/ may get increased subject knowledge.
- Provide specialist equipment/ which may enable her to train or practise to a higher standard.

10 (d) Sarah has an interest in the media.

Explain how the media may have influenced Sarah's participation in sport

(Answer in continuous prose)

(8 marks)

Award up to **eight** marks using the criteria outlined in the grid below.

Examples of content could include

- Increased coverage on all forms of media encourages interest
- Media informs of opportunities and possibilities
- Media educates about the need for healthy lifestyle/ and shows the consequences of a sedentary lifestyle
- Informs how and where to participate
- Media can entertain and therefore attract participation
- Media can promote role models who you can then aspire to be like and achieve what they have.

Please use the following grid to award a mark for both the content and the Quality of Written Communication (QWC) based on the following information.

QWC is part of the award of marks in levels marked questions only. In levels marked answers the quality of physical education is assessed and a level mark awarded based on the content. As is sometimes the case, the physical education may be sound at a particular level but the examiner may not be sure as to whether there is quite enough to raise the mark within that level. In this case the examiner should consider the QWC of the answer. QWC that fulfils the criteria for the level should lead to a rise in the mark but where QWC does not fulfil the criteria, the answer should remain at the mark first thought appropriate. In cases where QWC has been used in the award of marks, the examiner should indicate this in a comment box say 'QWC raised mark to show an upward trend'. QWC cannot be used to raise a candidate's mark into the next level.

Level 3	6 - 8 marks At least three examples explained, at least two fully, to show how the media may have influenced participation. NB If two examples are given and fully explained (maximum 6 marks). Candidates spell, punctuate and use rules of grammar accurately and use a wide range of specialist terms precisely.
Level 2	3 - 5 marks At least two examples with some explanation given to show how the media may have influenced participation. NB If only one example is given and fully explained (maximum 3 marks). Candidates spell, punctuate and use the rules of grammar with reasonable accuracy and use a range of specialist terms appropriately.
Level 1	1 - 2 marks At least one example with limited explanation given to show how the media may have influenced participation. NB A list of examples with no explanation (maximum 1 mark). Candidates spell, punctuate and use the rules of grammar with some accuracy. Limited use of specialist terms.
0 marks	No creditworthy material.

Example answers

Level 1 (1 mark)

Over the last few years there has been increased coverage of sport on the television. This has encouraged Sarah to take part in more sports.

Level 2 (4 marks)

Over the last few years there has been increased coverage of sports across all forms of the media. There are more sports magazines and programmes on the television covering a wide variety of sports. These may have inspired and motivated Sarah to try some new sports which has increased her participation. This increased coverage has given Sarah some role models who she now looks up to. She tries to be like them and when she practises and trains she could try to copy the techniques her role models use. Seeing Paula Radcliffe running the marathon might have inspired Sarah to take part in a half marathon.

Level 3 (7 marks)

There are now dedicated sports channels which are on 24 hours per day showing live coverage, highlights and news programmes. These could have inspired and motivated Sarah to try some new sports, that she may not have known existed, which has increased her participation. Seeing Cheerleading on Sky may have encouraged Sarah to have a go at this different activity, and after finding that she enjoyed it she might have joined a club and this helped her to improve her ability. This increased coverage has given Sarah some role models who she now looks up to. These role models have encouraged her to take up that sport and try to achieve what they have. She tries to be like them and when she practises and trains Sarah could try to copy the techniques her role models use. The media also provides education about the need to be healthy. Television programmes show the problems of leading a sedentary lifestyle. Sarah may have seen some of these and decided she needed to become more active. Sarah may have decided to go jogging to help her to lose weight and this developed her interest in cross country running and now she wants to extend the distance to a half marathon.

Assessment Grid

Question	AO1	AO3	Total
Section A Multiple Choice			
1	1		
2	1		
3	1		
4	1		
5	1		5
Section A Short Answer Questions			
6(a)	1	1	
6(b)	1	1	
7(a)	1		
7(b)	2		
8(a)	1		
8(b)		2	
9	5		15
Section B Questions based on the preliminary material			
10(a)	2		
10(b)	2	2	
10(c)	3	3	
10(d)	4	4	
Total	27	13	
Weighting	66	34	40

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