



General Certificate of Secondary Education (Short Course)
June 2011

Physical Education **48901**
(Specification 4891)

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

Final

Mark Scheme

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 events which all examiners participate in and is the scheme which was used by them in this examination. The standardisation process 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 standardisation each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, examiners encounter unusual answers which have not been raised 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.

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Section A – Part 1 Multiple Choice

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

1	Which one of these will not improve an individual's health?	<i>(1 mark)</i>
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Lack of sleep

2	All of the following are active leisure activities except :	<i>(1 mark)</i>
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Playing chess

3	Which one of these is not a disability category?	<i>(1 mark)</i>
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Social

4	The most important factor for a fast start in a 100m sprint is:	<i>(1 mark)</i>
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Reaction time

5	Before any physical activity, it is important to identify potential hazards. This is called:	<i>(1 mark)</i>
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Risk assessment

Section A – Part 2 Short answer questions

6 Regular exercise is important to help maintain a healthy lifestyle.

6 (a) State **one** reason why taking part in regular exercise can improve your health.
(1 mark)

Award up to **one** mark for identifying why taking part in regular exercise can improve your health.

- Reduces stress or tension or feel good factor or mental wellbeing.
- Improves fitness levels or physical wellbeing.
- Improves basic levels of strength or flexibility or endurance.
- Reduces the chances of illness or injury.
- Allows you to mix with other people or social wellbeing.
- Helps keep weight down or look good.

Accept any other suitable response.

6 (b) Explain how individual differences can affect the amount of exercise that a person may participate in.
(2 marks)

Award up to **two** marks for explaining why the amount of exercise might vary between different people.

- The ability of the performer/ higher ability performers will need to train more.
- The age/ gender of the individual/ will demand different energy levels.
- The physical condition of the individual eg illness or injury/ which would mean less exercise.
- Somatotypes/ valid descriptions of differences, eg endomorph less likely to do as much exercise.
- Level of motivation/ less motivated performers will do less exercise.
- Time/ less exercise due to other commitments like work or family.
- Higher metabolism/ so they would burn fat quicker so they don't need to exercise as much.
- Cost/ less exercise as they cannot afford to take part.
- Environment/ there are no facilities or open space to enable them to take part.

Accept any other suitable response.

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| 7 | <p>Physical Education is an important part of the school curriculum.</p> <p>Identify and explain how one other curriculum subject can contribute in a positive way to Physical Education. (3 marks)</p> |
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Award **one** mark for the subject identified and **two** further marks for explaining the positive contribution it makes to PE.

- **English or other languages/** speaking and listening are important when working with other performers and coaches and following or issuing instructions encourages good communication/ good written English is important for exam answers.
- **Science/** links with the theory on the PE course with human biology/ and how the body works.
- **Mathematics/** practical skills such as measuring and timing in athletics or keeping score in cricket/ ensure accuracy of results.
- **Food Technology/** information on diet and nutrition essential for sports performers/ to ensure improved performance.
- **Music/** links with dance being able to count to the beat of the music/ to choreograph routines effectively.
- **Geography/** links with outdoor activities that take place in environment, eg sailing/ knowing about wind and tides or mapwork with orienteering.
- **PSHE or Citizenship/** themes such as trust, responsibility or inclusion/ linked to fair play or teamwork.
- **ICT/** to provide information or help with revision/ which may help with theory or performance in exams.
- **ICT/** which might help with information collection/ when teaching fitness.

Accept any other suitable response.

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| 8 | <p>The GCSE Physical Education course allows students to adopt different roles within their activities.</p> <p>Identify two roles and explain how a student might gain different benefits from adopting each of these roles. (4 marks)</p> |
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A maximum of **four** marks are available. Award **one** mark for identifying a role and **one** further mark for explaining the benefit to the individual (NB benefits must be different to gain full marks).

- **Player or performer/** learn the skills and techniques/ to improve your performance or be an effective performer.
- **Official/** can be part of the activity even if injured/ gives a different view of the game/ so broadens knowledge of the activity/ maintains or improves fitness levels in an appropriate sport.
- **Organiser/** can have a part to play even if injured/ can develop skills such as time management that could be used outside of sport.
- **Leader or coach/** can have an influence over others to help them improve/ so they can achieve a feel good factor or sense of achievement.
- **Choreographer/** can have a part to play even if injured/ can develop skills such as communication which can transfer to everyday life.

9

The media has a large influence over sport.

Identify **one** type of media and describe **two** ways in which it can have a positive effect on sport.
(5 marks)

Award **one** mark for correctly identifying a type of media.

- Television
- Radio
- Newspapers or magazines or books
- Internet
- CD-ROMs

Award a further **two** marks for describing each way the media can have a positive effect, up to a maximum of **four** marks.

- They demonstrate good performance or give exemplars for athletes to copy/ to improve the standards within the sport.
- They help officials make decisions/ which improves the reputation of the sport.
- They can promote the health benefits/ which can increase participation or popularity of activities.
- Through payment for broadcasting rights or indirectly through sponsorship/ increases revenue coming into the sport.
- They increase the accessibility of a sport/ which increases its popularity or publicity.
- They can make a sport look more interesting or appealing/ and therefore more people want to take part or watch an event.

Accept any other suitable response.

Section B – Questions based on the preliminary material

10 (a) Rachel takes part in a lot of physical activity and she may experience fatigue as a result.

State what fatigue is and explain the effects it could have on Rachel's performance in **one** of her chosen activities. (4 marks)

Award up to **four** marks in total. **Two** marks for stating what fatigue is and up to **two** further marks for explaining the effect on performance.

Fatigue, either physical or mental, is a feeling of extreme/ tiredness/ due to a build up of lactic acid/ working for long periods of time.

Two further marks for:

- temporary loss of strength or energy/ so that you are unable to carry on/ which has a negative effect on performance
- concentration levels will drop/ leading to more mistakes/ which will have a negative effect on performance/ or could lead to injury
- skill levels will drop/ leading to mistakes/ which could lead to substitution.

10 (b) Rachel's football club has only just been formed and needs to attract sponsorship.

10 (b) (i) Describe **one** acceptable type of sponsorship that would be useful to the football club. (2 marks)

Award **one** mark for each acceptable type of sponsorship described up to a maximum of **two** marks.

- Specialised training equipment/ footballs, bibs, cones.
- Clothing/ such as team kit or tracksuits or footwear.
- Training/ specialist facilities could be provided to improve performance, eg AstroTurf.
- Coaches/ specialist coaches to run training sessions.
- Money/ which the club could use to buy what it needs.
- Specialist support eg physiotherapist/ to help player recover from injury.
- Specialist support eg nutritionist/ to help monitor diet.
- Transport/ to get teams or individuals to matches.

10 (b) (ii) Explain why an alcohol company may not be an acceptable sponsor for Rachel's football club. (2 marks)

Award up to **two** marks for explaining why an alcohol company may not be an acceptable form of sponsorship.

Illegal or U18 or underage/ and also harmful to health/ could encourage under age drinking/ bad image for the club

10 (c) State two components of physical fitness that Rachel would need when taking part in either football, swimming or cross country. Explain how these components could improve her performance in that activity. (4 marks)

Award **one** mark for stating an appropriate aspect of fitness and **one** further mark for explaining how it would contribute to a good performance up to a maximum of **four** marks.

- Dynamic strength/ to be able to work continuously, arm pull in swimming training.
- Explosive strength/ jumping for the ball in football.
- Cardiovascular endurance (stamina)/ ability of the heart and lungs to work efficiently through a football match or cross country run.
- Flexibility/ to allow better range of movement in the arm action in swimming.
- Speed/ to get away from players in football.
- Agility/ to be able to change direction quickly to avoid an opponent or get to the ball in football.
- Power/ to get the drive off the wall after a tumble turn.
- Coordination/ to produce a fluent and efficient stroke in swimming.
- Muscular endurance/ for the muscles to keep working for an extended period of time throughout a game of football or a race.
- Balance/ staying upright when avoiding a tackle or on uneven terrain in cross country.
- Reaction time/ reflex save by football goal keeper or getting a good start in swimming.

Accept any other suitable response with the explanation.

10 (d) Describe a training method that Rachel could use **and** explain in detail how she could also use the principle of overload to improve her fitness.

(Answer in continuous prose)

(8 marks)

Award up to 8 marks using the criteria outlined in the grid below.

Examples of content could include:

- circuit training a series of exercise stations that could be fitness or skill
- weight training a series of exercises used to improve muscular endurance or strength
- continuous training exercise designed to keep the heart rate up over an extended period of time using activities such as running, cycling and swimming
- interval training periods of work mixed with periods of rest depending on activity demand
- Fartlek training form of interval training using a mixture of brisk walking, jogging and steady pace running
- frequency increase how often you train or increase the number of sessions
- intensity increase how hard you train in terms of effort or increase the weight lifted, distance covered or number of repetitions or sets
- time or duration increase how long you train for.

Accept any other suitable response.

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 Suitable training method justified and/or fully described. The principle of overload is fully explained or at least two of the FIT or FID principles are identified and applied to the training method to show how they will add overload to improve fitness. Candidates spell, punctuate and use rules of grammar accurately and use a wide range of specialist terms precisely.
Level 2	3 – 5 marks Suitable training method justified and/or described. Some explanation of the principle of overload or at least two of the FIT or FID principles are identified and some application to the training method is made to show how they will add overload to improve fitness. 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 Suitable training method identified with no or limited description. The principle of overload or the FIT or FID principles are only stated with no application made to the training method to show how they will add overload to improve fitness. 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 3 (7 marks)

Circuit training would be a good training method for Rachel to choose because it is easy to apply overload. Circuit training consists of a series of exercise stations like press ups and sit ups which you perform for a set period of time with a rest in between. Overload should be increased gradually so during the programme she could increase the frequency by doing more sessions each week. The easiest part to increase is the intensity, by making the work interval longer or the rest between stations shorter Rachel can make the training harder. If she doesn't want to change the time she could just make the exercise harder for example by doing a full press up rather than a press up on knees.

Level 2 (4 marks)

There are lots of training methods that Rachel could use to improve her fitness for example interval training. Interval training is periods of work like sprinting mixed with periods of rest. She could also use this training method for her swimming by doing a set number of lengths followed by a rest after each set. To apply the principle of overload Rachel will need to make sure she increases the frequency of her training so she could go from two sessions a week to three sessions. To make it harder she will need to work harder during each interval.

Level 1(1 mark)

Rachel could use a training method like fartlek training which is where during a long run she varies the speed she runs at to improve her fitness. Overload is an important principle when planning training.