# LEVEL 1 & LEVEL 2 MARKING SCHEME

## SUMMER 2019

## LEVEL 1 & LEVEL 2
## SPORT AND COACHING PRINCIPLES
## 5929UB0-1

## INTRODUCTION

This marking scheme was used by WJEC for the 2019 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.

| Question | Mark Scheme | LO1 | LO2 | LO3 | LO4 | Total |
|---|---|---|---|---|---|---|
| **Q1** | **LO Totals** | | **10** | **6** | | **16** |
| (a) (i) | Complete the table below identifying the two **main** components of fitness that can be seen in Figure 1 for each activity.<br><br>***Award 1 mark for:***<br>**each correct component**<br>**rugby – strength & power/ balance & agility**<br>**gymnastics – balance & flexibility** | | 4–2.1 | | | 4 |
| (a) (ii) | Define each of the **four** components of fitness identified in ai) **4x1 mark**<br><br>***Award 1 mark for each correct definition:***<br><br>Strength – maximal contraction<br>Power – speed x strength<br>Balance – stability of the body's center of mass above the base of support<br>Flexibility – range of motion at a joint<br><br>Accept definitions (if different from above) but they must show complete understanding of the component. | | 4–2.1 | | | 8 |
| (a) (iii) | Identify a recognised fitness test that would measure one of the components of fitness for a rugby player.<br><br>**Award 1 mark for a recognised test** | | 1-2.2 | | | 15 |
| (a) (iv) | Identify a recognised fitness test that would measure one of the components of fitness for a gymnast.<br><br>**Award 1 mark for a recognised test** | | 1-2.2 | | | 16 |

| Question | Mark Scheme | LO1 | LO2 | LO3 | LO4 | Total |
|---|---|---|---|---|---|---|
| (b) (i) | Identify a method of training that would improve performance in rugby and explain why you have chosen this method.<br><br>***Award 1 mark for a relevant training method and up to 2 marks for a detailed explanation which provides an example of the importance.***<br><br>Candidates could pick any relevant training method and identify it's importance in improving performance<br><br>1 mark for naming the method<br>E.g. – Plyometrics (1 mark)<br>–<br>2 marks for explanation<br><br>1 mark for link to component<br>1 mark for link to rugby<br>plyometric training would improve the power of the rugby player. Plyometric training would improve acceleration and speed/improve jumping ability for a second row –increase power of arms and chest which would result in a better hand off. | | | 3–3.2 | | 11 |
| (b)(ii) | Identify a method of training that would improve performance in gymnastics and explain why you have chosen this method.<br><br>***Award 1 mark for a relevant training method and up to 2 marks for a detailed explanation which provides an example of the importance.***<br><br>1 mark for naming the method<br>E.g. – flexibility (1 mark)<br>–<br>2 marks for explanation<br><br>1 mark for link to component<br>1 mark for link to gymnastics<br><br>**Accept Plyometric training but not interval training**<br><br>Candidates could pick any relevant training method and identify it's importance in improving performance<br>E.g. Gymnastics – flexibility training would improve the flexibility of the gymnast allowing them to create more elaborate shapes and difficult balances and jumps which would increase the difficulty tariff of the routine allowing the gymnast to achieve higher marks.<br><br>Or similar | | | 3- 3.2 | | 14 |

| Question | Mark Scheme | LO1 | LO2 | LO3 | LO4 | Total |
|---|---|---|---|---|---|---|
| **Q2** | **LO Totals** | | 18 | | | 18 |
| (a) (i) | Describe when a badminton player would use each of the components of fitness below:<br><br>**1 mark for definition only**<br><br>**Up to 2 marks for each component described correctly – for example –**<br><br>**Reaction time – must include reference to reacting QUICKLY to a stimulus**<br>**Speed must include reference to moving quickly to do something (e.g. run quickly to net to return shuttlecock before it hits the floor)**<br><br>**Co-ordination must include reference to moving more than 1 body part or doing 2 things at once – moving and hitting.**<br>**Agility must include reference to changing direction at speed.**<br>**For example**<br><br>Reaction time – *responding to an opponent's smash and moving the racquet in a very short space of time to play a defensive shot and strike the shuttle back over the net.*<br>*Speed – sprinting from the back-court to retrieve an opponent's drop-shot at the net before the shuttle strikes the floor.*<br>*Co-ordination – being able to execute an overhead smash while jumping in the air to strike a moving shuttle.*<br>*Agility- changing direction very quickly from playing a shot at the net then racing back to retrieve a back-court clear shot from the opponent.* | | 8–2.1 | | | 8 |
| (b) (i) | Draw a line to match the recognised fitness test to the component of fitness.<br><br>**Award 1 mark for each correct link to the fitness test.** | | 4–2.2 | | | 12 |

| Question | Mark Scheme | LO1 | LO2 | LO3 | LO4 | Total |
|---|---|---|---|---|---|---|
| (b) (ii) | Explain why fitness testing is important for a badminton player.<br><br>Candidates do not need to list all reasons but rather explain how the factors are important to the athlete or coach.<br><br>**Award 1 -2 marks if candidates simply produce a list or explained only one factor. Award 3-4 marks where candidates have successfully explained at least two factors.**<br><br>Candidates could identify:<br>• Highlights strengths and weaknesses<br>• Compare data with other players<br>• Aids in goal setting/target setting<br>• Establishes a baseline of results<br>• Monitor progress of training programme.<br><br>**Or any other relevant and correct reason.** | | 4–2.3 | | | 16 |

| Question | Mark Scheme | LO1 | LO2 | LO3 | LO4 | Total |
|---|---|---|---|---|---|---|
| **Q3** | **LO Totals** | **8** | **1** | **4** | **7** | **20** |
| (a) (i) | Identify when the athlete is training aerobically<br><br>**D - award 1 mark** | 1–1.3 | | | | 1 |
| (a) (ii) | Explain your answer to 3 (a) (i).<br><br>**1 mark for intensity**<br>**1 mark for figures or %age**<br><br>**For example**<br>D is 60-80% of maximum heart rate (MHR) for a 15 year old and that is the aerobic training zone./ D is in the aerobic training zone as the heart rate is relatively low meaning the intensity of exercise is quite low. | 2–1.3 | | | | 3 |
| (a) (iii) | Identify when the athlete is training anaerobically.<br><br>**B - award 1 mark** | 1–1.3 | | | | 4 |
| (a) (iv) | Explain your answer to 3(a) (iii).<br><br>**1 mark for intensity**<br>**1 mark for figures or %age**<br><br>**For example:**<br>B is at a range between 80-100% of MHR therefore is in the anaerobic training zone./ B is working within the high intensity training zone as the heart rate is high-close to maximum heart rate | 2–1.3 | | | | 6 |
| (a) (v) | Identify the waste product from exercising within the aerobic energy system.<br><br>**CO2 and H2O – award 1 mark** | 1–1.3 | | | | 7 |
| (a) (vi) | Identify the waste product from exercising within the anaerobic energy system<br><br>**Lactic acid – award 1 mark** | 1–1.3 | | | | 8 |

| Question | Mark Scheme | LO1 | LO2 | LO3 | LO4 | Total |
|---|---|---|---|---|---|---|
| (b) | Describe three factors that Cadi would need to consider when developing a training programme<br><br>Candidates could choose factors relating to:<br><br>3 marks from:<br>**Personal** – health/fitness/age/gender /lifestyle/cost/time<br><br>**Environmental** – facilities/equipment<br>**Sessions** and structure – warm-up/ skill development/game related activities/ exercise session/cool down.<br><br>Awrad 1 mark for a list (but must contain 3 factors)<br>Award 1 mark a description of 1 factor<br>Award 2mark a description of 2 factors<br>Award 3mark a description of 3 factors | | | 3-3.3 | 4.1/2 | 11 |
| (c) | Explain why the setting of SMART targets will help Cadi improve her fitness.<br><br>**Marks can be awarded as 4x1 – a brief description of 4 factors**<br>**Marks can also be awarded as 2x2 – if 2 factors are explained in detail.**<br><br>**Accepted factors –**<br>**Specific/Measurable/Agreed/Time – if they relate to Cadi or an individual.**<br><br>**Improved focus/improved concentration/ improved motivation/improved adherence/ improved effort** | | | | 4-4.1 | 15 |

| Question | Mark Scheme | LO1 | LO2 | LO3 | LO4 | Total |
|---|---|---|---|---|---|---|
| (d)<br><br>(i) | Figure 3 shows a 6 week training programme for Cadi who is returning to training after injury<br><br>Analyse the main component of fitness being developed<br><br>**Award 1 mark for cardiovascular endurance** | | 1-2.1 | | | 16 |
| (ii) | Evaluate what principles of training can be observed in the training programme<br><br>Specificity – the programme is designed to improve cardiovascular endurance and the sessions will achieve this aim.<br><br>Overload & Progression – the body systems will be overloaded by the individual doing more than they do normally. The training stimulus is increased gradually (the sessions become harder) increasing in intensity over time.<br><br>Variance/Tedium – the sessions are varied using different equipment and range across several activities reducing chances of boredom.<br><br>**Marks can be awarded as 4x1 – if principles are specifically refered to (eg references intensity/frequency/time etc)**<br><br>**Marks can also be awarded as 2x2marks for 2 good evaluations of principles (eg 2 principles well described using examples could be awrded 4 marks.** | | | 4.3.1 | | 20 |

| Question | Mark Scheme | LO1 | LO2 | LO3 | LO4 | Total |
|---|---|---|---|---|---|---|
| **Q4** | **LO Totals** | **13** | | | **6** | **19** |
| (a) | Identify the **main** function of skeletal muscle for the sprinter?<br><br>**Movement – award 1 mark** | 1–1.2 | | | | 1 |
| (b) (i) | Identify the muscle group that contracts to extend the knee?<br><br>**Quadriceps – award 1 mark.** | 1–1.1 | | | | 2 |
| (b) (ii) | Identify the muscle group that contracts to flex the knee?<br><br>**Hamstrings – award 1 mark.** | 1–1.1 | | | | 3 |
| (b) (iii) | Identify the action where one muscle contracts and the other muscle relaxes is known as:<br><br>**Antagonistic action – award 1 mark** | 1–1.1 | | | | 4 |
| (c) (i) | Analyse the diagram above and identify the blood vessels of the heart<br><br>Aorta - D<br>Vena Cava- C<br>Pulmonary artery - A<br>Pulmonary vein – B<br><br>**Award 1 mark for each correct identification.** | 4–1.1 | | | | 8 |
| (c) (ii) | Identify which chamber of the heart pumps oxygenated blood around the body<br><br>**Left ventricle – award 1 mark** | 1–1.1 | | | | 9 |

| Question | Mark Scheme | LO1 | LO2 | LO3 | LO4 | Total |
|---|---|---|---|---|---|---|
| (d) | Describe the functions of the cardiovascular system during and post exercise for the sprinter<br><br>Marks can be awarded depending on the candidates answer.<br><br>**4x1marks or**<br>**2x2marks**<br>**2x1 mark**<br>**1x2 mark**<br><br>The descriptions should paint a picture of how the functions operate during or post exercise.<br><br>The functions could be:<br>• Transport of nutrients<br>• Transport of oxygen<br>• Removal of waste products<br>• Regulation of body temperature<br><br>E.g.<br>During exercise **the heart rate will increase** as the working muscles will **require more oxygen** and more **waste products will need to be removed** so the heart pumps more blood around the body to the required areas which will mean **increased stroke volume and cardiac output**. | 4–1.2 | | | | 13 |
| (e) | Explain the importance of goal-setting to support your athlete in improving their performance<br><br>Candidates should explain how goal-setting/target-setting will improve fitness and should not just define SMART.<br><br>• Improving focus<br>• improving motivation<br>• improving effort<br>• improving concentration<br><br>**Award 1 mark for each correct explanation under each of the above factors and a further 2marks for amplification or relevance to a specific individual or sport.** | | | | 6–4.1 | 19 |

| Question | Mark Scheme | LO1 | LO2 | LO3 | LO4 | Total |
|---|---|---|---|---|---|---|
| **Q5** | **LO Totals** | **6** | | **11** | | **17** |
| (a) (i) | Describe the differences you would expect to see between training sessions designed for elite athletes and sessions designed for sedentary individuals.<br><br>Descriptions should be based on differences in<br><br>• Intensities<br>• Duration<br>• Frequency<br><br>E.g.<br>Sedentary individuals would train at lower intensity and frequencies – less sessions per week/ more rest within sessions/ slower running/ less repetitions and sets/ less time training/lower weight lifted.<br><br>**Award 1 mark for each correct difference up to a maximum of 3 marks.** | | | 3-3.1 | | 3 |

| Question | Mark Scheme | LO1 | LO2 | LO3 | LO4 | Total |
|---|---|---|---|---|---|---|
| (a) (ii) | Analyse how you would apply the principles of training below to a training programme.<br><br>Answer similar to:<br><br>Specifity – the training method is specific to the sport and improves a component of fitness that is very important to the sport.<br>**Award 1 mark.**<br><br>Overload<br>Stressing the body and it's systems by doing more than usual<br>Progressive overload<br>Overloading will lead to adaptation and improvements in components of fitness<br>Overload can mean:<br>Increase in frequency- more training sessions per week<br>Increase in intensity- working at a higher heart-rate<br><br>Increase in duration (under training)- extra repetitions/sets or less rest periods.<br><br>**Award 1 mark each for a definition of overload**<br><br>**Award up to 4 further marks for reference to frequency/intensity/time and relates to a programme or series of training sessions**<br><br>For example<br>Weight training<br>increasing the weight, more sets or reps, reducing recovery time<br>more sessions per week | | | 6–3.1 | | 9 |

| Question | Mark Scheme | LO1 | LO2 | LO3 | LO4 | Total |
|---|---|---|---|---|---|---|
| (b) | Describe how **you** would warm-up effectively for a sporting competition.<br><br>Candidates should include the basic requirements in a warm up:<br><br>• Some form of cardio-vascular exercise to raise body temperature.<br>• Some form of stretching of specific muscle groups.<br>• A skills session relevant to the activity.<br>• Some form of mental preparation<br><br>**Award 1 mark for each reference to the components of a warm up.** | | | 4–3.3 | | 13 |

| Question | Mark Scheme | LO1 | LO2 | LO3 | LO4 | Total |
|---|---|---|---|---|---|---|
| (c) | Describe the long term adaptations you would expect following an endurance training programme **and** evaluate the impact this would have on performance<br>Long term effects would be:<br>Cardiovascular changes<br>Cardiac hypertrophy;<br>increased stroke volume (CV) at rest and during exercise;<br>decrease in resting heart rate;<br>increase in cardiac output;<br>capillarisation of the lungs and muscles;<br>increase in number of red blood cells<br>cardio-respiratory changes<br>Increase in minute ventilation and decrease in breathing frequency<br>Ability to take in more O2 and remove more CO2<br><br>An evaluation requires making a judgement so candidates should be able to offer reasons for the adaptations:<br><br>Run for longer<br>Off set fatigue<br>Faster recovery<br>Work at higher intensity for longer<br>Perform consistently (maintain high skill levels)<br>Reduce Mental fatigue<br>Produce repetitions of higher intensity<br><br>**Award a maximum of 2 marks if adaptations are listed with little or no amplification/reasoning candidate must include 3 adaptations.**<br><br>**Award up to 3x2marks for describing adaptations AND evaluating improvements to performance.**<br><br>**E.g. if candidate describes 1 adaptation and evaluates how it improves performance – award 2 marks.** | 6–1.4 | | | | 19 |

**Assessment Strategy**
**LO1 18-27**
**LO2 18-27**
**LO3 23-32**
**LO4 9-18**

| | LO1 | LO2 | LO3 | LO4 | TOTAL |
|---|---|---|---|---|---|
| **Q1** | | 10 | 6 | | **16** |
| **Q2** | | 16 | | | **16** |
| **Q3** | 8 | 1 | 7 | 4 | **20** |
| **Q4** | 13 | | | 6 | **19** |
| **Q5** | 6 | | 13 | | **19** |
| | **27** | **27** | **26** | **110** | **90** |
| AS | **18-27** | **18-27** | **23-32** | **9-18** | **90** |
| %age | **30** | **30** | **29** | **11** | |
| AS | **20-30** | **20-30** | **25-35** | **10-20** | |