

## **Cambridge National**

### **Sport Science**

Level 1/2 Cambridge National Award in Sport Science **J802**

Level 1/2 Cambridge National Certificate in Sport Science **J812**

## **OCR Report to Centres January 2017**

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This report on the examination provides information on the performance of candidates which it is hoped will be useful to teachers in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding of the specification content, of the operation of the scheme of assessment and of the application of assessment criteria.

Reports should be read in conjunction with the published question papers and mark schemes for the examination.

OCR will not enter into any discussion or correspondence in connection with this report.

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## R041 Reducing the risk of sports injuries

### General Comments

Centres are reminded that marking schemes are used as a basis for judgements and each examiner's professional judgement is used in finally deciding the marks awarded based on a rigorous standardised procedure. A 'levels' mark scheme relates to the final question – Q15. The mark scheme for this final question has a number of criteria separated into levels. Levels also include statements related to the quality of written communication. The levels scheme also includes indicative content that is expected in the levels' question and this content is taken into consideration when awarding marks. Examiners use ticks to indicate the number of marks given for questions 1 – 14.

Most candidates showed that they had been prepared well for the examination but again many candidates are leaving many questions unanswered, for example question 7 that requires practical examples as part of the description, question 11 on the on-field assessment routine and question 13 on hypoglycaemia.

Question 15 demands more extended writing from candidates and some described the causes, symptoms and treatment of overuse injuries well but again the standard of written communication hindered some candidate's ability to give a full and well-structured answer.

### Comments on individual questions

#### Question 1 (a) and (b)

Most candidates scored at least one mark, but for (a) many candidates struggled to identify that risk assessment is about hazards; too many wrote about 'knowing what to do if an injury happens'.

In (b) very few candidates achieved full marks with a large number of candidates misreading the question missed the indoor aspect of a fitness suite.

#### Question 2 (a) and (b)

Most candidates scored at least one mark for (a) but many candidates could not give examples of the key components of a warm-up.

For (b) most could give a skill that might be rehearsed as part of a warm-up.

#### Question 3

Many candidates did not take note that the question asked for characteristics of the client rather than other aspects such as the environment. Consequently, some candidates who obviously knew the factors affecting the planning of a warm up scored few marks because they did not limit their answers to the client's characteristics. The best candidates described fully rather than simply listed words and stuck to the requirements of the question.

#### Question 4 (a) and (b)

Most candidates could accurately list two symptoms of asthma and could give two ways a personal trainer could react to an asthma attack. Centres prepare their candidates well for questions related to asthma with some candidates drawing from their own experiences of this illness.

#### Question 5 (a) and (b)

Candidates are less familiar with epilepsy and its treatment. The better candidates could identify appropriate symptoms, although too many repeat the symptom of seizure that is identified in the question. Centres are advised to remind candidates that often questions will identify one

possible answer to the problem but will expect the candidate to give others without merely repeating what is in the question. Many stated that those having a seizure should be put in the recovery position, whereas accepted medical practice is to let the person continue with the seizure within a safe environment and then, if appropriate, once the seizure is finished the recovery position can be used.

#### **Question 6**

Many candidates recognised that statements (ii) and (iv) are false but many incorrectly thought that statements (i) and (ii) are true. It is important that all statements in such multi-choice questions are read carefully by the candidates before a selection is made.

#### **Question 7 (a) and (b)**

Many candidates only scored a single mark for (a), often showing a misunderstanding of the term 'coaching techniques'. Some candidates did not give any practical examples and could not therefore have access to the full mark range. In (b) again many only scored a single mark, often giving similar material to (a) or failing to give a valid practical example as part of their answer.

#### **Question 8 (a) and (b)**

Most candidates could give an example of protective equipment, although some gave shin pads as their answer when this was clearly in the question as an example. Many did not get the mark for (b) because they did not describe how the protective equipment could harm the performer themselves and merely wrote about harming others with equipment such as helmets.

#### **Question 9**

Candidates often gave an appropriate response for the treatment of muscle cramp – many citing massage in their answer. A lot of candidates could not give an example of when cramp might happen or the cause of muscle cramp.

#### **Question 10 (a) and (b)**

In (a), candidates had to name a sporting injury where it would be suitable to use a sling. Too many simply named a fracture or break but did not give the appropriate injury e.g. for a broken arm or dislocated shoulder etc. For (b) most candidates scored at least one mark but could not write three separate points to gain the three marks available. Generally, the amount of marks available correlate to the number of points that should be made in the response. The best candidates wrote about the sling giving support and protection as well as combatting swelling and keeping the injured limb in the correct position for effective healing.

#### **Question 11 (a), (b) and (c)**

For (a) a minority of candidates could not name the on-field assessment routine clearly identified in the specification. In (b) many could name the injury as an acute injury or a soft tissue injury but too many confused this with a chronic injury or in some cases candidates did not respond to this part of the question. Most candidates could identify RICE as the treatment for such an injury, with many candidates clearly familiar with the treatment of soft tissue injuries.

#### **Question 12**

Many candidates were prepared well for this type of question related to posture and were able to accurately identify two causes of a poor posture. A minority of candidates referred to sitting, standing and sleeping positions that were identified in the question. Again, candidates should read each question at least twice to understand what is required.

#### **Question 13 (a) and (b)**

In (a), very few could give the symptoms of hypoglycaemia. Many knew the symptoms of hyperglycaemia and some of these are common in both conditions but many are not so few marks were scored. In (b) again the responses were linked to high blood sugar rather than low blood sugar with many incorrectly stating that you should respond by giving insulin. The question was felt to be reasonable to ask given that hypoglycaemia is synonymous with diabetes and that

in order to respond appropriately to someone who seems unwell and has diabetes, one does need to be able to recognise the difference between whether the issue is one of high blood sugar requiring insulin or low blood sugar which may have been brought on by taking diabetes medication (which is the most common cause according to the NHS). It was, however, clear that many found this question challenging and every effort was made to accommodate this in the marking and the awarding of grade boundaries.

**Question 14 (a), (b) and (c)**

In (a) candidates wrote accurate and interesting descriptions of the psychological benefits of a hockey player using a warm-up. A few candidates confused psychological with physiological and responded with descriptions related to increasing blood flow etc and ignoring the psychological or mental benefits. In (b), candidates often gave a valid practical example of mental rehearsal, although many wrote about physical practices rather than mental. In (c) the term environmental needs to be clearly understood because too many candidates wrote about personal rather than environmental factors. Some candidates who clearly knew about the environmental factors scored few marks because they did not use practical examples in their answer.

**Question 15**

This question is marked using a levels mark scheme and the quality of written communication is taken into consideration.

Examiners take into consideration the extent to which each candidate addresses all aspects or variables in the question. This question asks for practical examples as well as causes, symptoms and treatments for overuse injuries. Those candidates who covered all these variables and developed their answer and wrote fluently scored high marks. Candidates are reminded that they must answer all parts of a question to be able to access all the marks available. More is not better in some instances and those that actually address the needs of the question accurately are those that score the highest.

The lower scoring responses were characterised by few if any examples and with many repeated points. These candidates often wrote very little and strayed into other type of injuries such as fractures instead of identifying valid overuse injuries. The better candidates developed their answers well for example explaining each element of 'RICE' as a treatment and expanded on the causes of such injuries such as the repetitive arm swinging that can lead to tennis elbow.

## Moderated Units

This qualification requires centres to use the Model Assignments provided by OCR. Since September 2013 there have been two Model Assignments for each of Units R042; R043; R044; R045 and R046

For all units the majority of centres have used the model assignments as required by OCR. Where these have been used it was clear to see that the candidates knew what tasks they had to do for this unit and candidates responded well to the tasks set.

Centres are reminded that OCR unit recording sheets must be used for each piece of candidates work submitted for moderation. Centres need to ensure that all centre and candidate details are entered into the appropriate sections at the top of the unit recording sheet. Centres are also reminded that the final piece of work should not be presented in plastic wallets/folders or as loose sheets of paper, but treasury tagged with the URS as the front sheet.

### **Unit R042: Applying principles of training unit**

LO1 – In most cases candidates were able to describe the principles of training in a sporting context and in some cases the candidates were able to support their work with very good examples from sport, particularly in the components of fitness and the principles of training. It would be beneficial if candidates used sporting examples relating to the last four to five years.

LO2 – Candidates were able to describe how training methods targeted different fitness components and it was very encouraging to see that in many pieces of work the candidates were able to support their descriptions with good examples of methods of training. In some cases the descriptions of the training methods needed to contain more detail. For MB2 and MB3 candidates are asked how training methods can target fitness components both individually and in combination very few candidates were able to do this effectively. This could be evidenced by means of a section at the end of the LO detailing 'in combination'.

LO3 – In most cases candidates correctly completed different fitness tests on individuals and were able to evaluate the recorded data. MB2 and MB3 require candidates to interpret the tests with reference to normative data. In some cases no normative data was included, or charts are just there with no explanation of their relevance. MB2 and MB3 also mentions reliability and validity not all candidates included information on these. These should be mentioned after the tests as how the tests were administered could be commented on. The model assignment contains a witness statement; this should be used in conjunction with the evidence provided by the candidate.

LO4 – The majority of candidates were able to design and develop a training programme which included both the principles of training and the methods of training relating to the information gained in LO3. It is important to include the information gained in LO3 as a means of clarifying the aims of the programme. It is recommended that there is an introduction to the programme which includes information as detailed in the specification under 'design a fitness training programme'. The majority of candidates were able to show their understanding of the knowledge gained in LO1 and LO2 and put into practice what they have learned. In most cases the candidates were also able to briefly evaluate the effectiveness of a training programme. In order to access MB3 it needs to be obvious where the principles of training have been incorporated and the evaluations need to be more detailed to include ideas for improvement which are specific and justified. Assessors could complete a witness statement for this task and state what individual support and guidance the candidates were given as stated in the grading band. It is important to note that the training programme should be carried out by the subject it

is designed for in order that the programme can be evaluated thus enabling the candidate to access to MB3

### **Unit R043: The body's response to physical activity**

LO1 – Candidates were able to locate, identify and describe key components of the musculo-skeletal and cardio-respiratory systems, together with their roles in producing movement and physical activity. Both were supported with a range of examples. Candidates need to comprehensively describe the role of the cardio-respiratory system in physical activity supported by a wide range of examples in order to achieve MB3.

LO2 – Many candidates were able to identify a range of benefits of cardio-respiratory fitness, however, some candidates focused on the signs and symptoms of the illnesses rather than how cardio-respiratory fitness could benefit them. All candidates were able to identify the benefits of muscular strength and endurance and muscular flexibility; this was supported with clear and relevant examples.

LO3 and LO4 – the evidence for these LO's asks for the short term and long term effects of exercise on the musculo-skeletal and cardio-respiratory systems to be identified, measured and recorded. Not all candidates had participated in tests therefore they were not able to provide the evidence (results) on which they could base their evidence to support the adaptations for both short term and long term effects of exercise.

The marking criteria for both LO's asks for a description of the adaptations recorded; this means that the evidence must relate to the results produced so that they will be specific to the activity (activities) participated in rather than generic. Candidates have to include a description of the adaptations recorded and an explanation in order to access MB2 and MB3. In LO4 the long term effects are not always applied. Adaptations tend to be researched but not linked to the data/activities candidates have recorded. There is often little evidence of the timescale that has been considered for the long term activities. For both LO's the data recorded should be included as evidence within the adaptations described.

### **Unit R044: Sport psychology**

LO1 – All candidates included a range of definitions of personality and provided information on the different personality types and approaches. Attempts were made to provide an explanation of the links between personality and sport. There needed to be more of a focus on supporting the links with a range of sporting examples and a more in-depth description.

LO2 – All candidates defined motivation and described the main theories. These theories were supported with clear and relevant examples of the implications for sport and exercise movement.

LO3 – All candidates identified a range of types and reasons for aggression. They described the theories of aggression supported by relevant examples. In order to access MB2 and MB3 candidates need to include a more in-depth description of the reasons for aggression and support these with a range of relevant sporting examples.

LO4 – All candidates explained the relationship between arousal and sport performance. They made reference to many theories of arousal/anxiety in relation to performance and supported the theories with a range of examples. All candidates had completed two anxiety tests and interpreted the results. There is a witness statement within the model assignment. It is recommended that this is used as part of the evidence for this LO

LO5 – All candidates mentioned a range of psychology strategies in relation to enhancing performance and applied them to a selected performer. It is recommended that the candidates refer to their performer, where appropriate, within the strategies when they are initially described.



For MB2 and MB3 candidates need to produce a more detailed/comprehensive assessment of the impact on performance using relevant evaluation.

It would be beneficial if candidates used more recent sporting examples relating to the last four to five years.

### **Unit R045: Sports nutrition**

LO1 – The majority of candidates were able to briefly describe most of the characteristics of a balanced diet, as well as describing in detail what nutrients are and their role within a healthy balanced diet giving a range of examples. The focus for this LO should be on generic information on what constitutes a balanced diet and then, where appropriate, applied to a sporting context.

LO2 – The majority of candidates were able to briefly describe the importance of nutrition before, during and after exercise, as well as identifying a range of different activity types and describe dietary requirements for these, as well as briefly describe the use of dietary supplements with limited awareness to why they are used in sport.

LO3 – The majority of candidates were able to define malnutrition accurately as well as outlining the effects of over-eating, under-eating and dehydration with limited reference to sports performance and participation.

LO4 – The majority of candidates were able to develop a diet plan, which incorporated many of the specific needs and requirements identified in the aims, as well as provide an evaluation, which reflected on many aspects of the design and completion of the diet plan. It is recommended that in order to access the top of MB2 and MB3 candidates produce a four-week diet plan in order to ensure that the diet plan is of a suitable length to achieve the goals set. Centres are reminded that the candidate must be able to interview 'face to face' the person who they are developing the diet plan for.

### **Unit R046: Technology in Sport**

LO1 – The majority of candidates described the use of technology to enhance performance, game play and spectatorship in sport giving a very limited range of examples.

LO2 – The majority of candidates were able to identify possible positive effects of sports technology.

LO3 – The majority of candidates were able to identify possible negative effects of sports technology.

LO4 – The majority of candidates were able to evaluate the impact of technology. There was evidence of the technology being evaluated in terms of factors affecting its use and its impact.

### **General**

Where evidence is provided through a presentation, centres are encouraged to provide a witness statement detailing the learner's response to any questions that have been asked in order to best support the mark awarded. Where witness statements are used as part of the evidence centres must ensure that they are personalised and not generic. Where the power point notes are included centres should ensure that the type size enables reading with ease.

Centres are reminded that use of centre devised templates, apart from those provided within the OCR model assignments, is not allowed. For further advice about this please contact the OCR Customer Contact Centre, Tel. 01223 553998.

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