

Cambridge Nationals

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 June 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.

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R041 Reducing the risk of sports injuries

General

Most candidates showed that they had been well prepared for the examination. Although some questions were again unanswered for example question 4 on medical conditions revealing significant gaps in candidates' knowledge and understanding.

Candidates often found the technical terms used in this paper difficult to understand, although these are often lifted directly from the specification. Centres are advised focus on increasing awareness of these terms and their meanings amongst candidates during delivery of the unit and to perhaps form their own glossary of technical terms that might be used in preparation for this examination paper.

Question 15 demands more extended writing from candidates and again the poor standard of written communication for a minority of candidates hinders their ability to give full and well-structured answers. Centres are reminded that a 'levels of response' mark scheme is used to assess this final question, which has a number of criteria separated into levels including statements related to the quality of written communication. The levels mark scheme also includes indicative content that is expected in responses to the 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 but use other annotations on Q15 as it is not '1 tick = 1 mark'.

Comments on individual questions

Question 1

Most candidates scored at least two marks for this four-mark question. Some mentioned psychological aspects which does not answer the question (which states 'physical increases'). Some candidates wrote 'to warm-up' which is simply a repeat of part of the question. Candidates are reminded to read each question very carefully to identify the requirements and to avoid merely repeating the word in the question.

Question 2

This proved to be a difficult question for many candidates and only the best scored the full four marks. Candidates often confused the terms 'mobility' and 'dynamic movement'. An understanding of the technical vocabulary that is stated in the specification is crucial if candidates are to perform well in this examination. The question also asks for a practical example for each – again not all candidates provided these and therefore could not access full marks.

Question 3

Many candidates could identify at least one aspect that would be checked during a risk assessment, showing that centres had prepared candidates well on this topic.

Question 4

Most candidates scored poorly on this question. Whenever a question is set on this area of the specification related to posture and medical conditions candidates tend to struggle and therefore the teaching of this area should be reviewed and the main points in the mark scheme reinforced. Scoliosis is generally well understood but the other medical conditions less so – with many candidates simply leaving this question unanswered. It is important for candidates to describe the location of the medical condition e.g. where on the spine and the direction of the curve if the medical condition relates to curvature of the spine.

Question 5

Candidates often responded to this question by simply referring to names of sports rather than types of activity, for example 'rugby' rather than 'contact sport'. Candidates who identified both the type of activity e.g. 'contact sport' and how this can increase the risk of injury e.g. 'because of dangerous tackles', scored the full two marks available.

Question 6

Many candidates wrote answers that were too vague and did not give the specific type of footwear that helps prevent injury. For example, 'football boots' is too vague but 'football boots with studs' is valid because it is a specific type of footwear to prevent injury.

Question 7

Most candidates scored the full two marks available and gave an excellent explanation of how emotional factors can affect posture. A small minority left this question unanswered.

Question 8

Candidates could give valid causes and treatments for each of the named injuries or medical conditions, although some candidates could not differentiate between abrasion and contusion. Many candidates did not respond to the Osgood Schlatter's disease part of the question. The lower-scoring candidates seemed to confuse the terms 'cause' and 'treatment' and centres are advised to ensure that candidates understand these terms and the distinction between them.

Question 9

Candidates often gave two valid examples of emergency equipment that might be part of an Emergency Action Plan. Others either left this question unanswered or only gave 'First aid kit' to score a single mark.

Question 10

Although the majority of candidates scored well on this question, though some were not precise enough in their responses; (a) and (b) are clearly breaks or fractures but it is the type of fracture that is important here and so 'open fracture' and 'closed fracture' was expected. Part (c) was answered well with most candidates identifying the injury as a blister, an abrasion, bruise or graze.

Question 11

Most candidates showed an impressive knowledge of overuse injuries with some excellent examples, including tendonitis, golfer's elbow and shin splints. This was a high scoring question.

Question 12

Many candidates could give accurate symptoms of an acute injury. Some candidates struggled with the word 'symptoms' and gave the names of injuries, for example a fracture. Others were unaware of the term 'acute' and gave more chronic examples.

Question 13

Some candidates did not use the words provided on the question paper. A significant minority of candidates referred to Type 2 diabetes rather than Type 1. The best candidates were able to identify the correct terms related to Type 1 diabetes.

Question 14

The vast majority were able to identify the correct response for each statement showing good recall of knowledge, although a minority of candidates showed a lack of knowledge about diabetes for part (e).

Question 15

This question is marked using a levels mark scheme and the quality of written communication is taken into consideration. Some candidates showed a fluent and well-planned response, others were less coherent and answers lacked structure and grammatical accuracy at times.

The best responses explained well the specific needs that should be considered by a sports coach when planning a warm-up or cool-down. In these cases, candidates wrote about a variety of different specific needs for example, the size of the group, the experience of the participants, individual health and fitness issues as well as the suitability of the warm-up or cool down to the activity undertaken. They also made a point and then developed it with other information. The lower scoring responses were too vague and rarely developed the points made. Some candidates gave descriptions of the warm-up and cool-down without referring to specific needs and therefore scored limited marks. Once again it is important for candidates to carefully read the question and identify exactly what is required as only addressing one variable or aspect of these questions will inevitably restrict access to the higher end of the mark range.

Moderated units

Unit R042: Applying principles of training

Unit R043: The body's response to physical activity

Unit R044: Sport psychology

Unit R045: Sports nutrition

Unit R046: Technology in sport

General

This qualification requires centres to use the Model Assignments provided by OCR. Since September 2013 there have been two Model Assignments for 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.

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 font size enables reading with ease.

Centres are reminded that the evidence produced must be produced solely by the individual learner; there were a number of instances this series where group work had been undertaken and the evidence provided for multiple candidates was the same. This inevitably leads to issues as it is not possible for the moderator to validate the different marks awarded to different candidates for their individual contributions unless the evidence is also individual.

Centres should ensure that they have a robust internal standardisation process and that all deliverers are assessing to the same standard and that the same level of detailed evidence is produced both in terms of learner work and witness statements. The work submitting should also be in a logical running order and annotated according to LOs. Centres are reminded that if the moderator disagrees significantly with the rank order in which they have awarded marks then the work may be returned to the centre for re-assessment.

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.

R042: Applying principles of training

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 more contemporary 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 many cases the descriptions of the training methods needed to contain more detail as this is one of the focal points of the LO. 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. It is important that candidates include information on 'in combination' as without this they cannot achieve a mark in MB3. 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 were present but with no explanation of their relevance. It is important that every candidate includes the normative data that has been used for interpretation. MB2 and MB3 also mention reliability and validity and 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. Where balance and flexibility have been identified as weaknesses in LO3 they should be included as part of the areas to be improved within 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 had learned. In most cases the candidates were also able to briefly evaluate the effectiveness of a training programme. In order to access MB3, where the principles of training have been incorporated needs to clearly shown and the evaluations need to be more detailed to include ideas for improvement which are specific and justified.

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. Therefore, candidates should not base their training programme on professional athletes as they will not have been able to carry out the fitness tests on a professional athlete as is required for LO3.

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. Some candidates were able to link the role of the musculo-skeletal and cardio-respiratory systems with their roles in producing movement and physical activity. However, the majority of candidates did not focus on the role the systems had in producing movement and physical activity and only produced evidence to achieve a mark in MB1 or the second part of the LO. To achieve a mark in either MB2 or MB3 for the second part of the LO there needs to be a detailed description focusing on movement and physical activity supported by a wide range of examples.

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 LOs 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 results to underpin their evidence of the adaptations achieved for both short term and long term exercise.

The marking criteria for both LOs 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 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 were 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 LOs the data recorded should be included as evidence within the adaptations described. The focus for both these LOs are the adaptations so linkage between the tests carried out and the adaptations to the body systems are essential in order to access the higher marks.

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 in some of the work seen.

LO2

All candidates defined motivation and described the main theories. These theories were in most cases 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. Many 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. Many candidates had completed two anxiety tests and interpreted the results. There should be evidence of the candidates completing two different anxiety tests rather than one test on two separate clients. There is a witness statement within the model assignment and 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 sporting examples relating to the last four to five years when linking LOs 1 to 4 to relevant supporting evidence.

R045: Sports Nutrition

LO1

The majority of candidates were able to 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 describing dietary requirements for these. It is recommended that there are two separate sections to this part of the LO as there needs to be a distinction between the generic description of the importance of nutrition for exercise and the evidence provided for a range of sports. The majority of candidates briefly described the use of dietary supplements, with limited awareness shown as 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; however there was often limited reference to sports performance and participation. The focus needs to be on sports performance and participation rather than on descriptions of medical issues associated with over-eating and under-eating.

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 it 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. Therefore, candidates cannot base their diet plan on professional athletes as they will not have been able to personally interview them.

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.

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