



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 2016

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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

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. Examiners use ticks to indicate the number of marks given for questions 1 – 14. 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 response to the question and this content is taken into consideration when awarding marks. On question 15 a tick does not necessarily equate to a mark.

Generally, candidates this series showed that they had covered the specification well but a minority misread questions and gave irrelevant material or merely left the question unanswered, indicating gaps in their knowledge for some parts of the specification. For example several candidates left question 6 unanswered, perhaps because they were unfamiliar with the acronym SALTAPS.

As in previous examination series' question 15 demanded more extended writing from candidates and in general answers to this question showed a good level of knowledge about posture. Some candidates were unable to access the full range of marks because the quality of their written communication was not appropriate for this level of examination. The limited standard of literacy for some candidates was again noted by examiners, with some candidates unable to give a fluent account in their answer. Centres and their candidates are reminded that spelling and the quality of their expression are taken into account when awarding marks for this question. Centres are again advised to continue to give help, advice and writing practice to their candidates.

Candidates should be familiar with the style of language used in the specification, because relevant technical language is often used in the examination questions. Candidates should be familiar with the command words used so that their written responses match the requirements of each question. For example, the command word 'describe' requires more than a one-word answer with the expectation that the candidate expands their response and addresses fully the requirements of the question. The command 'explain' is also often misunderstood. This command requires candidates to give reasons for their answer and may be linked to the requirement for practical examples.

Comments on individual questions

Question 1 a,b,c,d,e,f,g and h.

Most candidates scored high marks for these questions related to the symptoms and treatments for medical conditions. The vast majority of candidates knew the symptoms and treatment of asthma and most recognised the medical condition of epilepsy, although many candidates did not spell the condition correctly. Diabetes was less well known with many getting one symptom but struggling to give another as well as two types of treatment.

Question 2

Most candidates are now able to show the differences between acute and chronic injuries and many gave a clear example for each along with their possible causes. The most popular answer for chronic was tennis elbow and most correctly identified the cause being overuse, which was described well by most candidates.

Question 3

The majority of candidates could describe why bandaging and a sling might be used to treat injuries, although a minority of candidates gave little material in their description so scored fewer marks. For example a single word as a response to describe the use of a sling was 'support' that clearly does not describe the treatment. Candidates are reminded that when a description is required, single word answers will be unlikely to attract marks.

Question 4 a and b.

Most candidates accurately gave a practical example of a sporting situation where a fracture might occur for part (a), but many did not score the further two marks for explaining the difference between an open and closed fracture. Many recognised that an open fracture is when the bone can be seen because it pierces the skin, but then they were unable to explain that a closed fracture is when the bone breaks and the bone remains within the skin. A significant number of responses just stated 'remains under the skin' without reference to the bone being broken.

Question 5

Some candidates misread this question and explained why RICE is suitable rather than unsuitable to treat injuries. Candidates are reminded that it is important to read each question carefully and not to assume anything unless the whole question has been read and understood. Those that did understand the requirements of the question did well, with the best candidates explaining that RICE can be detrimental to injury recovery especially when used on cuts or breaks and that RICE treatment might well increase pain to the injured area or actually make the injury worse.

Question 6 a and b.

Many candidates scored well and showed good recall of the acronym SALTAPS. Some candidates left this question unanswered. Part (b) asked for a description and the candidates who used a well written description showing the importance of looking at an injury, to ascertain the extent and whereabouts of the injured part of the body, did well. Fewer described the importance of touch and many did not describe well how touch can give vital information about the source of pain or any deformities in the limb following an injury.

Question 7

Many candidates scored well, but some candidates showed poor examination technique by merely writing 'motivation' or 'concentration' rather than describing the psychological benefits. Some candidates confused the terms psychological and physiological and centres are reminded to ensure that the vocabulary used in the specification is familiar to the candidates. Many candidates still write 'get blood pumping' or 'get oxygen around the body' without the idea of an increase as a result of a warm-up.

Question 8

Although many candidates scored at least one mark for this question on the cool down, too many are still too vague in their answers. For example a cool down aids recovery by gradually decreasing heart rate, body temperature and breathing rate. Simply stopping the exercise will decrease the body systems but it is the slow decrease that aids recovery. The best candidates recognised the importance of the cool down in helping to decrease the levels of waste products in the blood, especially lactic acid.

Question 9

In this six mark question, candidates were asked for an example and a reason why three components of a warm-up were beneficial. Most responded well to the pulse-raiser, although many did not attain the second mark because they used the same words in their answer as in the question - so rising heart rate was an expected response, rather than as a 'pulse raiser' - which was in the question. Candidates are reminded to use phrases that do not merely repeat the phrases in the question so that they show an understanding of the topic material. Mobility

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exercise and dynamic movement exercises are generally not well known by candidates who struggle to recognise the differences in these components of the warm-up.

Question 10

This question was not generally well-answered with some misunderstanding of the requirements of the question. For example some candidates merely described the component of skill rehearsal rather than to describe the benefits of this component of a warm-up. The best candidates gave two well described reasons for a skill rehearsal component often describing an improvement in technique or an opportunity to practice the movements required in the game.

Question 11

This question was misunderstood by some candidates who appeared to mis-read what was required. Many did not describe but merely wrote single word answers. Others did not take due regard that there were three marks available and only gave one or two points in their descriptions. The better candidates described well that poor coaching techniques, poor understanding of the rules and ineffective communication skills can all lead to higher risk of injury in sport.

Question 12

Many candidates could describe well how protective equipment could cause an injury, but some candidates merely stated that if you did not wear the equipment then you are more likely to sustain an injury. This kind of response does not answer the question which is how the protective equipment, performance equipment and clothing/footwear could all cause an injury rather than the absence of such equipment or clothing.

Question 13

Although most candidates recognised sleep as not being the psychological factor that increases a performer's chance of sustaining an injury, a surprising amount of candidates omitted the question and left it unanswered.

Question 14

This question proved difficult for many candidates who were often unable to explain fully how gender, age and previous injuries should be taken into account when leading a sports session. Some offered stereotypical views that 'males are better than females' or described the possible disadvantages of mixing the sexes in an activity rather than explaining the reasons for possible segregation. Likewise with age, many candidates merely stated that you should not put young with old, rather than supporting their view with a valid practical example. It is important that centres remind candidates to read and respond to all parts of each question - in this instance an explanation along with a supporting example was required to score two marks for each variable identified.

Question 15

This question is marked using a levels mark scheme and the quality of written communication is taken into consideration. The level of written communication was generally better this year, although some candidates remain unable to fluently express themselves on paper. Otherwise, this question was answered well, with many candidates identifying several different causes of poor posture. The better candidates also used practical examples to develop their answers. Only the best candidates linked poor posture with sports performance. Those candidates who used short, clear and accurate sentences scored well. A pleasing number of candidates referred well to conditions related to poor posture such as pelvic tilt, lordosis and scoliosis. Centres are now effectively preparing most of the candidates for questions related to posture - a significant aspect of Learning Outcome 1 in the specification.

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

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.

Unit R042: Applying principles of training unit

LO1 - In a 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.

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. MB2 and MB3 also mention 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 which 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 evaluation needs 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.

LO3 draws upon skills/knowledge and understanding from other units and it is important that the centre assessor indicates where this has been acknowledged in their internal assessment.

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 indepth 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 indepth 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

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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.

LO5 draws upon skills/knowledge and understanding from other units and it is important that the centre assessor indicates where this has been acknowledged in their internal assessment

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.

General

Where evidence is provided through a presentation centre's 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.

OCR (Oxford Cambridge and RSA Examinations)
1 Hills Road
Cambridge
CB1 2EU

OCR Customer Contact Centre

Education and Learning

Telephone: 01223 553998

Facsimile: 01223 552627

Email: general.qualifications@ocr.org.uk

www.ocr.org.uk

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Head office
Telephone: 01223 552552
Facsimile: 01223 552553

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