



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate 2021

Marking Scheme

Physical Education

Higher Level

Note to teachers and students on the use of published marking schemes

Marking schemes published by the State Examinations Commission are not intended to be standalone documents. They are an essential resource for examiners who receive training in the correct interpretation and application of the scheme. This training involves, among other things, marking samples of student work and discussing the marks awarded, so as to clarify the correct application of the scheme. The work of examiners is subsequently monitored by Advising Examiners to ensure consistent and accurate application of the marking scheme. This process is overseen by the Chief Examiner, usually assisted by a Chief Advising Examiner. The Chief Examiner is the final authority regarding whether or not the marking scheme has been correctly applied to any piece of candidate work.

Marking schemes are working documents. While a draft marking scheme is prepared in advance of the examination, the scheme is not finalised until examiners have applied it to candidates' work and the feedback from all examiners has been collated and considered in light of the full range of responses of candidates, the overall level of difficulty of the examination and the need to maintain consistency in standards from year to year. This published document contains the finalised scheme, as it was applied to all candidates' work.

In the case of marking schemes that include model solutions or answers, it should be noted that these are not intended to be exhaustive. Variations and alternatives may also be acceptable. Examiners must consider all answers on their merits, and will have consulted with their Advising Examiners when in doubt.

Future Marking Schemes

Assumptions about future marking schemes on the basis of past schemes should be avoided. While the underlying assessment principles remain the same, the details of the marking of a particular type of question may change in the context of the contribution of that question to the overall examination in a given year. The Chief Examiner in any given year has the responsibility to determine how best to ensure the fair and accurate assessment of candidates' work and to ensure consistency in the standard of the assessment from year to year. Accordingly, aspects of the structure, detail and application of the marking scheme for a particular examination are subject to change from one year to the next without notice.

Notes regarding the Marking Scheme

In considering this marking scheme, the following should be noted:

- The support notes in many cases contain key phrases which must appear in the candidate's answer in order to merit the assigned marks.
- The detail required in any answer is determined by the context and the manner in which the question is asked and by the number of marks assigned to the answer in the examination paper.
- Words, expressions or phrases must be correctly used in context and not contradicted, and where there is evidence of incorrect use or contradiction, the marks may not be awarded.
- As a general rule, if in doubt about the validity of any answers, examiners must consult their advising examiner before awarding marks.
- The suggestions, examples etc in the scheme are not exhaustive and alternative valid answers etc. are acceptable.

The answers to subsections of a question may not necessarily be tied to a specific mark eg there may be three parts to a question, and a total of 12 marks allocated to the question. The marking scheme might be as follows: 6 + 3 +3. This means the first correct answer encountered is awarded 6 marks and each subsequent correct answer is awarded 3 marks.

Section A**40 marks**

There are 12 questions of which candidates must answer 5.

Question 1**(8 marks)**

Description	Marks
Two personal health and wellbeing benefits described	4 marks + 4 marks
Accurate description of personal health and wellbeing benefits for teenagers who participate in physical activity. Good description 4 m Fair description 2 m e.g. physical health, mental health Do NOT accept economic benefits.	

Question 2**(8 marks)**

Description	Marks
Part practice explained e.g. skill is broken down into its smaller parts and each part is practiced in isolation.	2 marks
Relevant example of part practice provided in relation to physical activity e.g. basketball layup	2 marks
Whole practice explained e.g. skill is practiced in its entirety from start to finish	2 marks
Relevant example of whole practice provided in relation to physical activity e.g. running Do NOT accept game/match practice	2 marks

Question 3**(8 marks)**

Description	Marks
Accurate discussion of statement: Technology can only go so far in helping officials, and at times it can make officiating more difficult.	
Good discussion 8 m	
Fair discussion 6 m	
Poor discussion 4 m	
Very poor discussion 2 m	

Question 4**(8 marks)****(a)**

Description	Marks
Accurate description of fitness test battery e.g. a series of tests used to determine an individual's overall physical fitness. The tests selected should test the physical fitness demands related to the sport. Different sports will use different test batteries specific to their sports.	2 marks

(b)

Description	Marks
Identified performance related fitness demand relevant to physical activity named – 1 m e.g. speed, power, agility, reaction time, coordination, balance Brief description of relevance of identified performance related fitness demand to physical activity – 1 m	2 x 2 (1+1) marks

(c)

Description	Marks
Tests relevant to the performance related fitness demand e.g.	
Performance –related fitness demand	Physical fitness test
1. Agility	1. Illinois agility test
2. Speed	2. 20m sprint test
	1 mark
	1 mark

Question 5**(8 marks)**

Description	Marks
Two phase of macrocycle described	4 marks + 4 marks
Accurate descriptions of phases of a macrocycle within a periodised training plan relevant to physical activity Good description 4 m Fair description 2 m e.g. preparation phase (or pre-season), competition phase (or in season), transition phase (or off season)	

Question 6**(8 marks)**

Description	Marks
Accurately identifies and provides brief description of distinct ways schools can address gender imbalance in physical activity participation	4 x 2 marks

Question 7**(8 marks)****(a)**

Description	Marks
Frontal plane movement explained in detail accurately – 4 m e.g. A plane is an imaginary surface running through the body. The frontal plane splits the body vertically into front and back halves. These halves are of equal mass. Many movements in the frontal plane are lateral movements. Abduction and adduction occur in the frontal plane. Some accuracy in explanation – 2 m	4 marks

(b)

Description	Marks
Two different examples of frontal plane movement e.g. performing a cartwheel, jumping jacks, side step	2 marks + 2 marks

Question 8**(8 marks)****(a)**

Description	Marks
Two principles of ethical practice identified – 1 m e.g. fairness, respect, integrity Brief description of each principle of ethical practice identified/or described in relation to scenario presented – 1 m	2 x 2 (1+1) marks

(b)

Description	Marks
Accurate description of how unethical behaviour impacts negatively on sport Good description 4 m Fair description 2 m	

Question 9**(8 marks)****(a)**

Description	Marks
Accurate description of both state and trait anxiety - 4 m Accurate description of state or trait anxiety – 2 m	
e.g. State anxiety is an immediate emotional state that is characterised by apprehension, fear, tension and an increase in physiological arousal in response to a specific situation or demand in a game or event. It is a temporary emotional state. Trait anxiety is considered to be a part of one's personality – an acquired behavioral tendency or disposition to perceive certain situations as threatening although they may not be. There is a direct relationship between an athlete's level of trait anxiety and state anxiety, athletes with high trait anxiety tend to experience more state anxiety.	

(b)

Description	Marks
Accurate description of how state anxiety can impact performance in sport Good description 4 m Fair description 2 m	

Question 10**(8 marks)**

Description	Marks
Two structures or strategies described	4 marks + 4 marks
Accurate description of structures or strategies that performers can use in competition relevant to named physical activity. Good description 4 m Fair description 2 m	

Question 11**(8 marks)**

Description	Marks
Accurate explanation of why a lack of media coverage of women in sport might maintain gender stereotyping of women in sport Good explanation 8 m Fair explanation 6 m Poor explanation 4 m Very poor explanation 2 m	

Question 12**(8 marks)****(a)**

Description	Marks
Two appropriate methods of collecting physical activity data listed e.g. pedometer, physical activity self-report diary	1 mark + 1 mark

(b)

Description	Marks
2%	2 marks

(c)

Description	Marks
Two appropriate reasons why some post primary school students do not get 60 minutes of MVPA on at least one day suggested.	2 marks + 2 mark

Section B**Case Study****50 marks****Question 13****(50 marks)****(a)**

Description	Marks
Identifies lever as 1st (first) class	2 marks
Justification e.g. the pulling of the paddle as the effort, the oarlock or point where oar fixes to the boat as the fulcrum and the water as the load	2 marks

(b)

Description	Marks
Correct stage of skill learning identified	2 marks
Justification includes accurate information in relation to autonomous stage of skill learning and includes a relevant example from case study – 5 marks Additional example from case study provided + 1 mark e.g. “As a technique there is a lot involved, but after 17 years you don’t even have to think about it at this stage, it just happens.” won a silver medal in the men’s lightweight double sculls category at the 2016 Rio Olympic Games.	5 marks + 1 mark

(c)

Description	Marks
Accurate explanation of economy of movement and includes relevant example from case study – 5 m	5 marks
Additional example from case study provided + 1 marks	+ 1 mark
e.g. Elite rowers rely on having excellent technique that allow them to be very economical with their movements. They need all of their energy to be used in a positive manner that is going to make their boat faster rather than waste it through energy leaks. In the case study we learn that even something as small as a “sudden head tilt will offset the boat and cause a dip to one side” which will slow the boat down. We also learn that the rowers must have coordinated and powerful movements of legs and arms which need to be anchored by a strong core. A breakdown of the movements between these body parts will result in a breakdown of technique leading to poor movement economy and subsequent performance. The fact that Gary and Paul race together in one boat makes their combined techniques especially important. Movement economy will be greatly affected if Gary and Paul’s movements are not synchronised excellently.	

(d) (i)

Description	Marks
Sessional rate of perceived exertion	2 marks
Daily wellness parameters	2 marks

(ii)

Description	Marks
Accurate outline of how rate of perceived exertion or daily wellness parameters can assist coaches and athletes to avoid the risk of overtraining. Good description 4 marks Fair description 2 marks	

(iii)

Description	Marks
Component: Cardio respiratory endurance	2 marks
Evidence from plan: 90 minutes or rowing/ running or cycling- 3 days a week	1 mark
Component: Muscular endurance	2 marks
Evidence from plan: Volume based weight training- 3 days a week	1 mark
Component: Flexibility	2 marks
Evidence from plan: Stretching is in the plan 7 days a week	1 mark
Also accept balance – core training, strength – circuit	

(iv)

Description	Marks
Accurate explanation as to why the development of cardio-respiratory endurance, muscular endurance, flexibility, balance and/or strength are important in rowing.	2 marks + 2 marks + 2 marks
Good explanation 2 m Fair explanation 1 m	

(e)

Description	Marks
Phase named e.g Phase 1 – Sprint start, Phase 2 – Maintenance phase, Phase 3 – Sprint finish	1 mark + 1 mark + 1 mark
Accurate explanation of the contribution of the relevant energy systems during each phase Good explanation 2 m Fair explanation 1 m	2 marks + 2 marks + 2 marks

Section C**80 marks**

There are 5 questions of which candidates must answer 2.

Question 14**(40 marks)****(a)**

Description	Marks
Two appropriate methods of analysis described	4 marks + 4 marks
Accurate description of method Tayla and her coaches could use to analyse her set shot technique described Good description 4 m Fair description 2 m e.g. observation schedules, video analysis, biomechanical analysis	

(b)

Description	Marks
Two characteristics of role models described	4 marks + 4 marks
Accurate description of the characteristics of role models who promote and support others to take part in physical activity. Good description 4 m Fair description 2 m	

(c)

Description	Marks
Accurate explanation of why the characteristics associated with hegemonic femininity might impact the participation levels of girls in sport and physical activity. Good explanation 10-12 m Fair explanation 7-9 m Poor explanation 5-6 m Very poor explanation 1-3 m	

(d) (i)

Description	Marks
Knowledge is accurate and detailed Considers the argument that physical activity participation levels of young men can be influenced by media representations of the 'perfect body' in a way that uncovers the assumptions and interrelationships of the issue. A variety of different relevant factors are considered Independent opinions and judgements will be present and supported by relevant physical activity examples	8
Knowledge is sometimes accurate with some detail Considers the argument that physical activity participation levels of young men can be influenced by media representations of the 'perfect body' in a way that uncovers the assumptions and interrelationships of the issue. Opinions and judgements given which may be supported by relevant physical activity examples	5
Basic knowledge and little understanding Little or no consideration given to the argument that physical activity participation levels of young men can be influenced by media representations of the 'perfect body' in a way that uncovers the assumptions and interrelationships of the issue. Little or no attempt to give opinion or judgement.	2
No relevant content/ Incorrect response	0

(ii)

Description	Marks
Accurate discussion of how body image can be influenced by levels of physical activity participation in females Good discussion 4 m Fair discussion 2 m	

Question 15**(40 marks)****(a)**

Description	Marks
Before an event	4 marks
Accurate explanation of how the effective use of carbohydrates before an event can help endurance athletes optimise their performance. Good explanation 4 m Fair explanation 2 m	
Explanation of how the effective use of carbohydrates during an event can help endurance athletes optimise their performance	2 marks

(b) (i)

Description	Marks
Identify three other distinct Irish anti-doping rule violations (ADVR).	2 marks + 2 marks + 2 marks
3. Refusing or failing to do a drug test after notification 4. Committing Three Whereabouts Failures (Filing Failures or Missed Tests) in 12 months 5. Tampering 6. Possession of Prohibited Substances and/or Prohibited Methods 7. Trafficking in any Prohibited Substance or Prohibited Method 8. Administration to an Athlete of any Prohibited Method or Prohibited Substance; assisting, encouraging, aiding, abetting, covering up 9. Complicity or Attempted Complicity - Involvement in an ADRV committed by another person, such as helping to cover up that ADRV or avoid detection, will be sanctioned in the same way as that violation. 10. Prohibited Association -Associating with a person such as a coach, doctor or physio who has been found guilty of an ADRV or equivalent offence to a doping violation will be sanctioned with a ban of up to 2 years. 11. Protection of Whistle-blowers - it is an ADRV to threaten another person or to discourage that person from reporting to authorities of information relating to an ADRV, non-compliance with the Code or other doping activity, or to retaliate against another person for doing so 2021 Irish Anti-Doping Rules - https://www.sportireland.ie/anti-doping-rules (Accessed: 16 July 2021)	

(ii)

Description	Marks
Accurate discussion of how peptide hormones enhance performance. Fair discussion 4 marks Poor discussion 2 marks e.g. Erythropoietin (EPO) Do NOT accept testosterone as it is a steroid hormone.	

(c)

Description	Marks
Accurate and detailed explanation of range of negative implications that an athlete could potentially face if they use performance-enhancing drugs. Do NOT accept implications on sport	4 marks + 4 marks + 2 marks + 2 marks

(d)

Description	Marks
Three post exercise recovery strategies described	4 marks + 4 marks + 4 marks
Accurate description of post exercise recovery strategies that an athlete could use which would not put them at risk of committing an Irish anti-doping rule violation. Good description 4 m Fair description 2 m e.g. cold water immersion, compression garments, use of active recovery days Do NOT accept nutritional strategies	

Question 16**(40 marks)****(a)**

Description	Marks
Accurate discussion of how the use of effective communication skills would assist Donie in sharing his knowledge of the game of Gaelic football, with his players.	
Very good discussion 8 m	
Good discussion 6 m	
Fair discussion 4 m	
Poor discussion 2 m	

(b)

Description	Marks
Identified principle of effective practice– 1 m e.g. varied, progressive, specific, measurable, achievable, realistic, timed, exciting, recorded Brief description of principles of effective practice that coaches use when designing practice schedules– 1 m	4 x 2 (1+1) marks

(c) (i)

Description	Marks
Specific examples of technology described, for example, Global positioning systems (GPS) and VAR etc. and accurate and detailed description of how coaches use these technologies to enhance team or athlete performance in a named physical activity.	3 marks + 3 marks + 2 marks

(ii)

Description	Marks
Response must relate to technology described in question 16 c (i)	4 marks
Good justification 4 m Fair justification 2 m	

(d)

Description	Marks
Accurate description of the pathway to excellence that a named National Governing Body (NGB) has developed for its athletes. Very good description 10-12 m Good description 7-9 m Fair description 5-6 m Poor description 1-3 m e.g. Tennis Ireland- The Long Term Player Development Pathway	

Question 17**(40 marks)****(a) (i)**

Description	Marks
Accurate description of distance – 2m e.g. Distance is a scalar quantity. It is described in terms of its magnitude. Distance refers to the path of a body as it moves from one location to another. Accurate description of displacement – 2m e.g. Displacement is a vector quantity. It is described in terms of its magnitude and direction. Displacement is a measure of motion ‘as the crow flies’.	2 marks + 2 marks

(ii)

Description	Marks
Distance= 400m	1 mark
Displacement= zero	1 mark

(iii)

Description	Marks
Correct average speed, including unit - 2 m Average speed, unit not given – 1 m	2 marks
Average speed = total distance travelled divided by the total time spent traveling $100\text{m} / 10.5\text{s} = 9.5 \text{ m/s}$	

(iv)

Description	Marks
Accurate reason- 2 m Somewhat accurate reason – 1 m	2 marks

(b) (i)

Description	Marks
Accurate definition of Newton's third law of motion	2 marks
Newton's third law states that every action has an equal but opposite reaction. This means that to every force there is an opposite counterforce.	

(ii)

Description	Marks
Accurate explanation of how Newton's third law of motion applies to the skill being executed by Georgia in Figure 11. Good explanation 4 m Fair explanation 2 m	

(c) (i)

Description	Marks
Accurate definition of skill e.g. learned behaviour "A learned action/behaviour with the intention of bringing about predetermined results with maximum certainty and minimum outlay of time or energy." (Knapp, 1963)	1 mark
Accurate definition of ability e.g. natural/ inbuilt.	1 mark
Accurate discussion of statement Good discussion 4 m Fair discussion 2 m	4 marks

(ii)

Description	Marks
Two concepts of physical activity described e.g. play, leisure and recreation, physical education, mass-participation sports, outdoor and adventure activities, sport	4 marks + 4 marks
Accurate description of concept of physical activity Good description 4 m Fair description 2 m	

(d)

Description	Marks
Identifies a national policy e.g. Get Ireland Active!	2 marks
Accurate explanation of how identified national policy supports physical activity for all. Very good explanation 8 m Good explanation 6 m Fair explanation 4 m Poor explanation 2 m	8 marks

Question 18**(40 marks)****(a)**

Description	Marks
Identified characteristic distinct – 1 m Brief description of how the characteristic gives spectator appeal – 1 m	4 x 2 (1+1) marks

(b)

Description	Marks
Accurate description how the selection of appropriate attire can assist the performance of an athlete in a named physical activity. Good description 6 m Fair description 4 m Poor description 2 m	

(c)

Description	Marks
Two psychological strategies pre performance e.g. positive self-talk, visualisation, meditation	6 marks + 6 marks
Accurate examination psychological strategies that Jordan could have used pre performance to ensure that he was mentally prepared for the psychological demands of an NBA final series. Good 6 m Fair 4 m Poor 2 m	

(d) (i)

Description	Marks
Sports supplement named e.g. caffeine, creatine, beta-alanine, nitrates Do NOT accept sports drinks	4 x 1 mark

- (ii) Explain how the use of each of the supplements named by you in question 18 (d) (i) might enhance the performance levels of a basketball player.

Description	Marks
Accurate and detailed explanation of how the use of the four named sports supplements might enhance the performance levels of a basketball player.	3 marks + 3 marks + 2 marks + 2 marks

Leaving Certificate Physical Education – Project Marking Scheme 2021

9-10 Excellent			7-8 Very Good			5-6 Good			3-4 Fair			1-2 Poor		
Section		Description								Marks				
A		Performance Analysis								22				
		Performance analysis undertaken e.g. Testing conducted appropriately on wide range of aspects relevant to physical activity selected and justification provided for selection of aspects								8				
		Summary of data collected e.g. Wide range of data presented								4				
		Analyse the performance e.g. Performance results analysed in detail, based on sound theoretical principles								10				
B		Identification of three distinct performance goals and evidence of on-going training/ practice and reflection Note: if performance goal not distinct, discount lowest scoring goal and rationale								42				
		Performance goals e.g. Clearly stated performance goal that conforms to SMART or similar principle								6				
		Rationale e.g. Based on sound theoretical principles								6				
		Training/ Practice Programmes e.g. Detailed, accurate and relevant plan based on a wide range of sound theoretical principles. Wide variety of strategies implemented.								21				
		Reflections e.g. Ongoing critical and insightful reflection								9				
C		Concluding analysis								20				
		Repeat analysis e.g. All tests repeated and results provided, and performance is analysed.								8				
		Final reflection e.g. all three performance goals addressed. Strengths and weaknesses of programme considered.								6				
		Next steps for further improvement e.g. justification provided								6				

	Overall coherence	16
	Overall coherence relates to the overall completion of the project. It is an overall mark awarded for the relevance of the work to the stated aims. Cannot be awarded coherence marks if only one aspect of the project is evident. A penalty (10m/6m/2m) may apply where a candidate has significantly exceeded the prescribed one or more of the word count, duration of video or number of images.	4 x 4 marks
Total Marks		100

Leaving Certificate Physical Activity Project Higher Level and Ordinary Level

The Physical Activity Project carries 20% of the marks available in Leaving Certificate Physical Education and is assessed at Higher and Ordinary level. The form and the requirements of the project are the same at both Higher and Ordinary levels, so that candidates will not necessarily need to have chosen their level at the time of submission. Differentiation will take place at the point of assessment.

In order to ensure the correct alignment between the standard required to achieve grades at the two levels (H5 = O1; H6 = O2; H7 = O3) the work is all marked initially on a reference scale. These reference marks are then converted to Higher or Ordinary level marks as appropriate.

For ease of implementation, the reference scale is designed to coincide with the Higher-level scale. Accordingly, after the candidate's Physical Activity Project has been awarded a mark on the reference scale, Higher-level candidates have that reference mark recorded as their final mark for the Physical Activity Project, while Ordinary-level candidates have an adjustment made to convert the reference mark to their final mark for the Physical Activity Project. The table below illustrates the alignment between the grades.

Higher grade	Ordinary grade	Reference mark	Higher mark	Ordinary mark
1		90 – 100	90 – 100	100
2		80 – 89	80 – 89	100
3		70 – 79	70 – 79	100
4		60 – 69	60 – 69	100
5	1	50 – 59	50 – 59	90-100
6	2	40 – 49	40 – 49	80 – 89
7	3	30 – 39	30 – 39	70 – 79
8	4	25 – 29	25 – 29	60 – 69
	5	20 – 24	20 – 24	50 – 59
	6	15 – 19	15 – 19	40 – 49
	7	10 – 14	10 – 14	30 – 39
	8	0 – 9	0 – 9	0 – 29

PHYSICAL ACTIVITY PROJECT– conversion from reference mark to Ordinary-level mark

For Ordinary-level candidates, the final mark is found from the reference mark as follows:

- If the reference mark is 60 or more the final mark is 100.
- If the reference mark is at least 30 but less than 60 then add 40 to the reference mark to get the final mark.
- If the reference is at least 1 but less than 30 then double the reference mark and add 10 to get the final mark.
- If the reference mark is 0 the final mark is 0.

Reference	Conversion
60 or more	Award 100 marks
30 – 59	Add 40 marks
1 – 29	Multiply the reference mark by 2 and add 10
0	0

