



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate Examination 2020

Physical Education

Higher Level

2 hours 30 minutes

250 marks

Examination Number

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Day and Month of Birth

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For example, 3rd February
is entered as 0302

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Instructions

There are **three** sections in this paper.

Section A	Short answer questions	80 marks
Section B	Case study	50 marks
Section C	Long questions	120 marks

Answer questions as follows:

- All questions in Section A
- All questions in Section B - Case Study
- Any **three** of the five questions in Section C

Write your answers in the spaces provided in this booklet. There is space for extra work at the end of the booklet. Label any such extra work clearly with the question number and part.

This examination booklet will be scanned and your work will be presented to an examiner on screen. Anything that you write outside of the answer areas may not be seen by the examiner.

Use blue or black pen only.

Answer **all** questions.

Question 1



Figure 1

Movement patterns occur in planes and around axes.

Identify the axis and the plane for the hammer thrower that is shown in **Figure 1** above.

Axis
Plane

Question 2

Dehydration can have a negative effect on a long distance runner's performance.

Discuss the importance of hydration in this specific example.

Question 3

(a) Identify a test that can measure flexibility.

(b) Referring to a named physical activity, describe how an improvement in flexibility could contribute to improved performance in that physical activity.

Question 4



Figure 2

Jason Smyth, in Figure 2 above, is a Paralympian with a visual impairment. He is a 100 metre champion. He was crowned the “fastest Paralympian on the Planet” when he won at the Rio ‘One Year to Go’ celebration event.

State and explain **two** different types of feedback that would be appropriate for Jason.

1.
2.

Question 5



Figure 3

- (a)** Identify what class of lever operates at the elbow when throwing the javelin as shown in **Figure 3**.

Class

- (b)** Draw the lever system identified by you in question 5 (a).
Label each part of the lever system.



Question 6

Regular participation in physical activity can improve mental health.

Outline **two** reasons to support this statement.

1.
2.

Question 7

With reference to a named physical activity, discuss **two** ways mental preparation can help improve performance.

1.
2.

Question 8

(a) Identify **two** Irish anti-doping rule violations.

1.
2.

(b) Anabolic steroids are a type of performance-enhancing drug.
Discuss how anabolic steroids affect performance.

Question 9

- (a) For a named physical activity, use an example, to explain what is meant by 'adapted physical activity'?

- (b) Outline **two** barriers to physical activity participation for people with a disability.

1.
2.

- (c) What can be done at a local level to address the barriers identified by you in question 9 (b)?

1.
2.

Question 10

Analyse the impact media coverage has on spectator behaviour.

[illegible]

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Examine the text, images and graphs in the Case Study below and answer **all** of the questions which follow.

In tennis, a game is started with a serve. You must serve cross court. If the first serve is unsuccessful, a second serve is allowed. An ace is scored when the opponent has been unable to return the serve. Figure 4 shows Andy Murray's second serve percentage areas at Wimbledon 2015 before his semi-final with Roger Federer. It highlights where his serve lands in his opponent's receiving box. Murray is a right handed player.

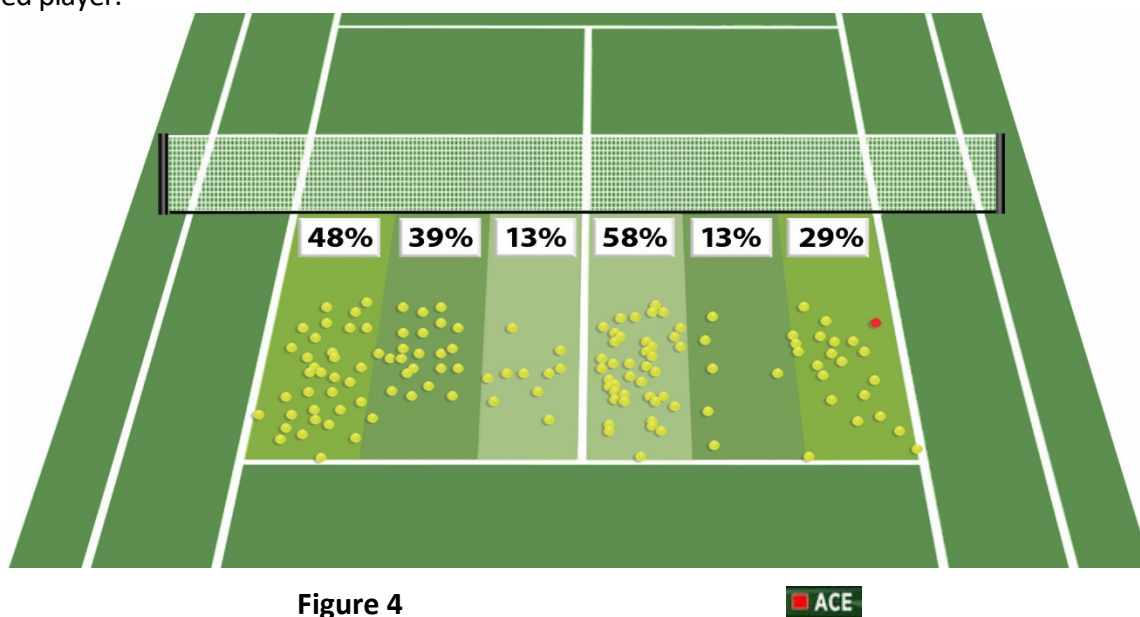


Figure 4

A 15 year old elite tennis player training for an upcoming competition recorded his strength levels at the start of his training (week 1), right before his competition (week 5) and after a break from training (week 10). These results are shown in Figure 5. Figure 6 shows his overall training plan in the run up to the competition (week 5).

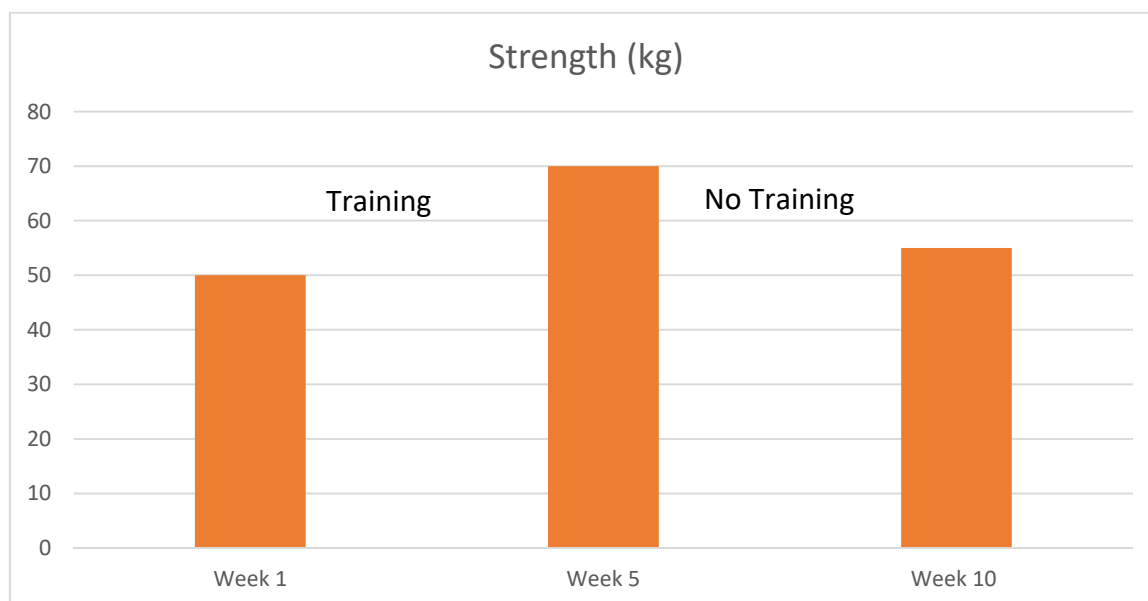


Figure 5

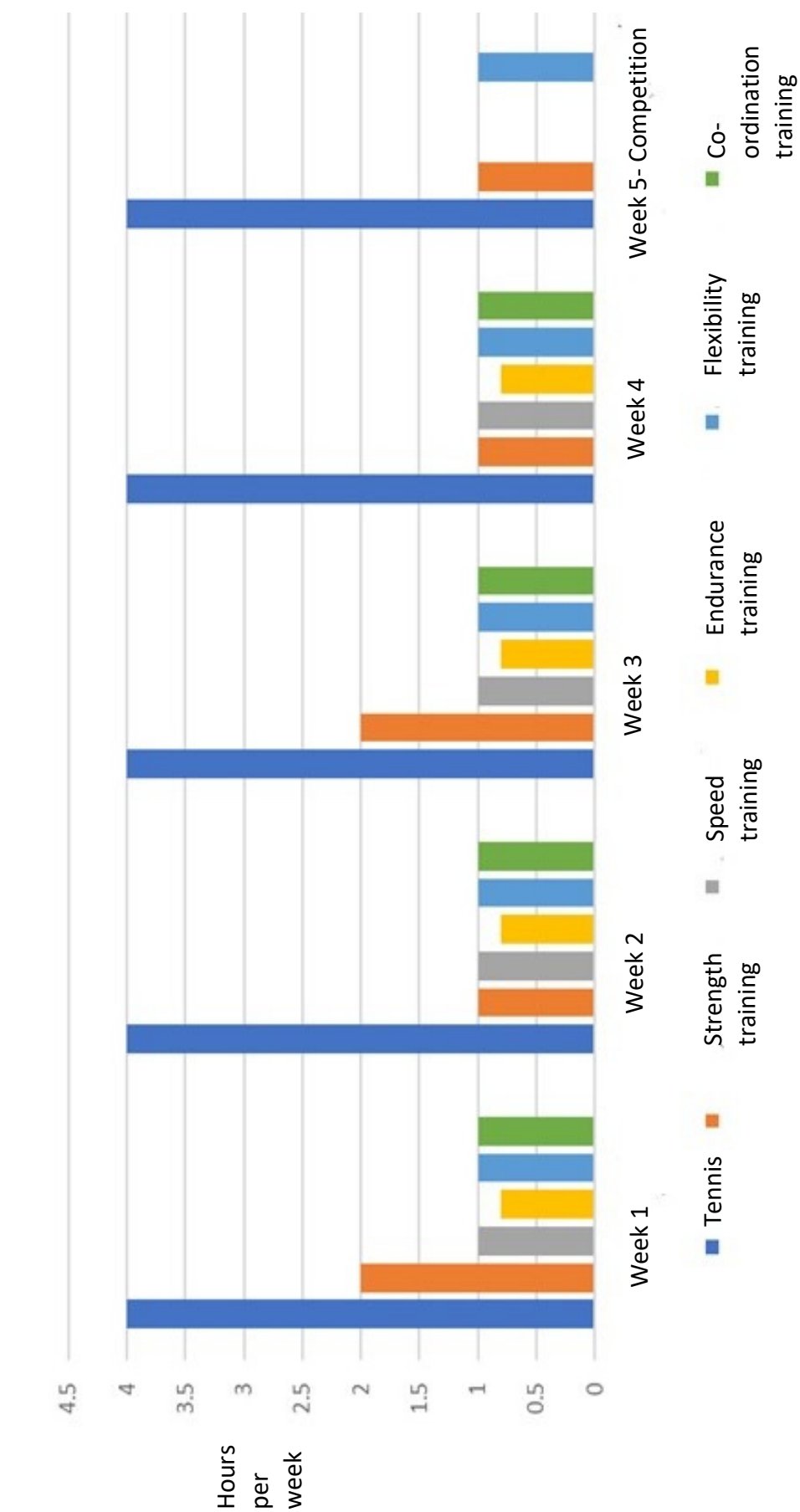


Figure 6

Question 11**(50 marks)**

- (a) (i)** Identify and outline the principle of training the tennis player displayed from week 6 to week 10 as shown in **Figure 5**.

- (ii)** Suggest reasons why there was no training from week 6 to week 10 in **Figure 5**.

- (iii)** Examine how the principle of training identified by you in question **11 (a) (i)** would impact on the skill level of an athlete preparing for a competition.

(b) (i) Identify **two** key training patterns evident in **Figure 6**.

1.
2.

(ii) Suggest reasons for **one** of the training patterns identified by you in question **11 (b) (i)**.

(iii) Suggest reasons why there is no speed or endurance training in week 5 - competition week, **Figure 6**.

(d)

An Outside the Lines investigation has found that the clean reputation of tennis is largely due to the lax anti-doping efforts by the sport. Year after year the testing methods tennis uses have been deemed generally ineffective and unreliable by experts. It has spent until recently, little effort and money on aggressively testing for the drugs that provide players the most benefit in the modern game: erythropoietin (EPO), growth hormone and synthetic testosterone. Tennis tests athletes at the same level as lower profile and less lucrative sports such as handball, canoeing, kayaking, triathlon and volleyball.

Discuss the implications for the sport of tennis if high profile players, were caught for anti-doping violations.

Answer any **three** questions, from questions 12, 13, 14, 15 and 16.

Question 12**(40 marks)****(a)**

Figure 7

The sports participation pyramid is a model of sport development. It identifies the different groups of performers at each level giving them a clear pathway to the top. The foundation level is an introduction to physical activity. At this level basic skills are learnt. An example of provision at this level is primary school Physical Education lessons. At the participation level people start to engage in specific physical activities and participate in them regularly. For example by attending an extra-curricular sports club. At the performance level, people usually specialise in one physical activity and specific skills are developed through coaching and competition. Performers are competing at regional level for their clubs. The excellence level is the peak of the pyramid where people are competing at national and international level. Relatively few performers achieve this level.

(i) Discuss the difference between skill and ability.

(ii) Name and define **two** different types of skill.

1.
2.

(b) Analyse the supports that promote physical activity participation in school.

(c) Describe how skills are learned effectively.

(d) Analyse current provision and support for excellence in performance in a named physical activity.

Question 13**(40 marks)****(a)****Figure 8**

Joy Neville has set multiple milestones, including refereeing in the Division 1A of the Ulster Bank League. She has become the first woman to officiate a Pro 14 match and the first woman to officiate in the Challenge Cup. Along with Spain's Alhambra Nieves, she was one of the first women to officiate a men's international match when she took charge of Norway versus Denmark. Neville was also awarded Referee of the Year in November 2017, following her performance in the women's World Cup final. A game of rugby union has two periods of 40 minutes each. In international matches the referee will stop the clock for stoppages.

Participation and progression in physical activities often comes about through the influence and support of others. A chance meeting with former Ireland international rugby player Jackie McCarthy kick-started Joy's rugby playing career.

What are the main characteristics of people who are key influencers in supporting the participation of others in physical activity?

- (b)** Joy Neville played rugby at an international level.
Analyse how this level of experience may have helped her to become an effective official.

- (c) (i)** List the demands of officiating rugby in terms of physical fitness.

- (ii)** Based on the physical fitness demands you have identified in question **13 (c) (i)**, discuss **two** different methods of physical fitness training Joy could use to help her meet the demands of her role.

(d) Personal contacts can be very influential in promoting involvement in physical activities. David McHugh the Irish Rugby Football Union's referee development officer directly approached Joy about becoming a referee. This resulted in a career change for her.

(i) Describe different approaches to physical activity promotion outside of a school environment.

(ii) Why might the approaches described by you in question **13 d (i)** be expected to increase participation rates in physical activity?

Question 14**(40 marks)**

(a) What is meant by the following terms: rules, roles, rituals and conventions?

Rules
Roles
Rituals
Conventions

(b)

“Of course you think about the goalkeeper you are facing before a game. You have to prepare yourself for the game and think about the weaknesses of the players you are up against”. Mo Salah (Liverpool soccer player).

In a named physical activity, identify **two** possible weaknesses of a goalkeeper and explain how you would exploit those weaknesses.

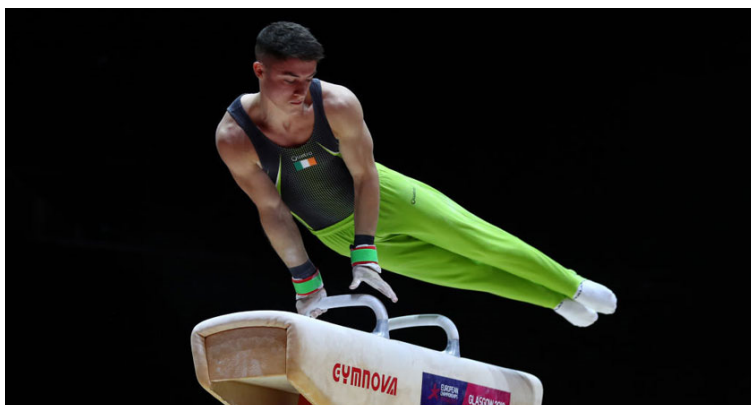
1.
2.

(c)

Laura is 22 years old and plays senior inter-county Gaelic football and camogie with Galway. She plays on both the football and camogie teams in university in Cork and plays senior club football and camogie in Galway as well. She trains or plays nearly every day of the week, with some weeks having no day off at all. She has often played two matches in one day.

Based on the above information, how can Laura be proactive in avoiding problems associated with overtraining and player fatigue?

(d)



Ireland's Rhys McClenaghan has created sporting history by winning a bronze medal in the Pommel Horse event at the World Championship gymnastics final in Stuttgart in 2019. The 20 year old is the first ever Irish gymnast to win a medal in the World Championships.

Figure 9

- (i) Describe the performance of McClenaghan in **Figure 9** from an aesthetic or artistic perspective.

- (ii) Rhys McClenaghan trains and performs on a fixed apparatus called the Pommel Horse. Describe strategies his coach may use to support his ongoing motivation to practice and/or perform.

Question 15

(40 marks)

(a) (i) Define **three** key principles of ethical practice in sport.

1.
2.
3.

(ii) The principles of ethical practice in physical activity are often ignored.
Analyse this statement.

- (b)** Some performers like to drink chocolate milk after training.
What benefits may this provide over water alone?

- (c)** **Note:** You must answer part (i) and part (ii) of this question 15 (c), with reference to a different group for each part.

As part of your Leaving Certificate Physical Education course, you studied at least two of the following groups:

- Women
- Older adults
- People with physical disability
- People with intellectual disability
- Different ethnic groups
- Different socio-economic groups

- (i)** Discuss the coverage of sport in the media from the perspective of the participation of **one** of these groups.

Question 16**(40 marks)**

- (a)** Research published in England in 2015 by the Future Foundation, “warned that Physical Education lessons needed to use digital technology to make sure that young people are motivated to take part”.

Examine technological innovations that may help increase a performer’s motivation to take part in Physical Education classes.

- (b)**

The heptathlon (women) consists of three running events, two jumping events and two throwing events, all carried out over two days. Day 1: 100m hurdles, high jump, shot-put and 200m. Day 2: long jump, javelin and 800m. The main qualities of a heptathlete are speed and strength. High levels of concentration are required throughout the two days of the event.

- (i)** Describe fitness tests for speed and strength suitable for a heptathlete.

Fitness test for speed
Fitness test for strength

- (ii) Discuss a strategy to enhance concentration that a heptathlete could use during this two day event.

- (iii) Complete the table below. For each of the energy systems, select an event from the heptathlon that predominantly uses that energy system. Explain your choices.

Energy System	Heptathlon event	Explanation
Anaerobic – alactacid		
Anaerobic - lactic		
Aerobic		

(c)

Heptathletes must be able to cope with special tactical demands. Heptathletes receive points for each event, according to a scoring table. Therefore, the results of the events and not the placing are the most important thing. Like all combined event athletes they must be able to achieve maximum performance:

- in the sprints and hurdles without the benefit of qualifying runs
- in the long jump and throws with a limited number of attempts
- in a fixed sequence of events over a two day period
- even as they become fatigued.

Suggest strategies a heptathlete could implement to address the demands outlined above.

Space for extra work

Indicate clearly the question number and part of the question (s) you are answering.

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Acknowledgements

Images

Image on page 3: <https://www.hammerthowerworkoutplan/exercise.com>

Image on page 5: Michael Steele/Getty Images

Image on page 6: <https://www.eclasses.blogspot.com> (Accessed on: 20 January 2020)

Image on page 12: <https://www.bbc.com/sport/tennis/33465931> (Accessed on: 4 February 2020)

Image on page 13: <https://www.backtobasicsinsports.com/en/blogitem/40> (Accessed on: 12 November 2019)

Image of page 21: Oliver McVeigh/Getty Images (Accessed on: 4 February 2020)

Image on page 26: Andy Buchanan/AFP/Getty Images (Accessed on: 4 February 2020)

Texts

Text on page 5: <https://www.paralympics.ie/jason-smyth> (Accessed on: 14 August 2019)

Text on page 17: adapted from the article by Fish, M. (October 2 2016) *Tennis has a clean record on PEDs and that appears to be no accident*. ESPN.

Text on page 21: adapted from the article *Joy Neville: Working in a male dominated world is what I know* by Anna Kessel in The Irish Times 17 April 2018 (Accessed on: 4 February 2020)

Text on page 30: <https://www.athleticsireland.ie/athletic-events-and-disciplines/heptathlon-decathlon/> (Accessed on: 6 January 2020)

Text on page 32: adapted from Vinduskova, J (2003) *Training women for the Heptathlon – A brief outline*. IAAF 18:2, 27-45.

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Leaving Certificate – Higher Level

Physical Education

2 hours 30 minutes