

© International Baccalaureate Organization 2026

All rights reserved. No part of this product may be reproduced in any form or by any electronic or mechanical means, including information storage and retrieval systems, without the prior written permission from the IB. Additionally, the license tied with this product prohibits use of any selected files or extracts from this product. Use by third parties, including but not limited to publishers, private teachers, tutoring or study services, preparatory schools, vendors operating curriculum mapping services or teacher resource digital platforms and app developers, whether fee-covered or not, is prohibited and is a criminal offense.

More information on how to request written permission in the form of a license can be obtained from <https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/>.

© Organisation du Baccalauréat International 2026

Tous droits réservés. Aucune partie de ce produit ne peut être reproduite sous quelque forme ni par quelque moyen que ce soit, électronique ou mécanique, y compris des systèmes de stockage et de récupération d'informations, sans l'autorisation écrite préalable de l'IB. De plus, la licence associée à ce produit interdit toute utilisation de tout fichier ou extrait sélectionné dans ce produit. L'utilisation par des tiers, y compris, sans toutefois s'y limiter, des éditeurs, des professeurs particuliers, des services de tutorat ou d'aide aux études, des établissements de préparation à l'enseignement supérieur, des fournisseurs de services de planification des programmes d'études, des gestionnaires de plateformes pédagogiques en ligne, et des développeurs d'applications, moyennant paiement ou non, est interdite et constitue une infraction pénale.

Pour plus d'informations sur la procédure à suivre pour obtenir une autorisation écrite sous la forme d'une licence, rendez-vous à l'adresse <https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/>.

© Organización del Bachillerato Internacional, 2026

Todos los derechos reservados. No se podrá reproducir ninguna parte de este producto de ninguna forma ni por ningún medio electrónico o mecánico, incluidos los sistemas de almacenamiento y recuperación de información, sin la previa autorización por escrito del IB. Además, la licencia vinculada a este producto prohíbe el uso de todo archivo o fragmento seleccionado de este producto. El uso por parte de terceros —lo que incluye, a título enunciativo, editoriales, profesores particulares, servicios de apoyo académico o ayuda para el estudio, colegios preparatorios, desarrolladores de aplicaciones y entidades que presten servicios de planificación curricular u ofrezcan recursos para docentes mediante plataformas digitales—, ya sea incluido en tasas o no, está prohibido y constituye un delito.

En este enlace encontrará más información sobre cómo solicitar una autorización por escrito en forma de licencia: <https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/>.

Sports, exercise and health science
Standard level
Paper 2

29 April 2026

Zone A morning | **Zone B** morning | **Zone C** morning

Session number

1 hour 30 minutes

--	--	--	--	--	--	--	--	--	--

Instructions to students

- Write your session number in the boxes above.
- Do not open this examination paper until instructed to do so.
- Answer all questions.
- Answers must be written within the answer boxes provided.
- A calculator is required for this paper.
- A clean copy of the **SEHS data booklet** is required for this paper.
- The maximum mark for this examination paper is **[50 marks]**.



Answer **all** questions. Answers must be written within the answer boxes provided.

1. Race walking is an endurance event in which athletes compete on hard surfaces such as roads.

(a) Evaluate the effect of longer leg length on race walking performance.

[2]

.....

.....

.....

.....

Data were collected for a group of race walkers. **Table 1** shows average ankle joint angles and velocity during normal and race walking.

Table 1: Average ankle joint angles and velocity during normal and race walking

	Normal walking	Race walking
Ankle dorsiflexion (°)	15.81	20.30
Ankle plantarflexion (°)	3.77	15.61
Ankle angular velocity (°s ⁻¹)	36.06	73.53

(b) Using **Table 1**, suggest **one** likely cause of injury during race walking.

[1]

.....

.....

(This question continues on the following page)



(Question 1 continued)

- (c) Explain **three** ways to prevent injury during race walking.

[3]

.....

.....

.....

.....

.....

.....

- (d) A race walker competes in a hot and humid climate. Discuss cardiovascular drift and how the race walker can reduce its effects.

[4]

.....

.....

.....

.....

.....

.....

.....

.....



2. A strength and conditioning coach is asked to prepare a strength training programme for a 55-year-old male with no previous training history.

(a) Outline **two** factors the coach must consider before designing the programme. [2]

.....

.....

.....

.....

(b) Apply **three** training principles to a strength training programme designed for this individual. [3]

.....

.....

.....

.....

.....

.....

.....

.....

(c) Outline **two** signs of potential overtraining for this individual. [2]

.....

.....

.....

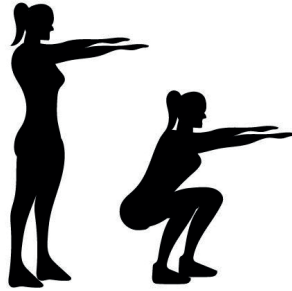
.....

(This question continues on the following page)



(Question 2 continued)

The coach includes squats in the strength training programme.



- (d) State the movement of the knee joint during the downward phase of a squat. [1]

.....
.....

- (e) Suggest **one** advantage of the class of lever found at the knee. [1]

.....
.....



3. (a) An athlete's arousal levels increase at the start of a race, causing a release of epinephrine. Apply **three** effects of epinephrine on the athlete.

[3]

.....

.....

.....

.....

.....

.....

- (b) Describe how the body responds to changes in blood pH during a race.

[4]

.....

.....

.....

.....

.....

.....

.....

.....

(This question continues on the following page)



(Question 3 continued)

- (c) Discuss how anxiety could affect the performance of an athlete during a race. [4]

.....

.....

.....

.....

.....

.....

.....

.....

- (d) Elite athletes often have a high level of mental toughness. List **three** attributes of mental toughness. [3]

.....

.....

.....

.....

.....

.....



4. In rugby, players often collide at high speed, which can lead to concussion. **Figure 1** shows a collision in rugby.

Figure 1: Collision in rugby



- (a) Outline **four** strategies to reduce the risk of concussion during a rugby game. [4]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(This question continues on the following page)



(Question 4 continued)

- (b) Outline **three** factors that may affect the flight path of a rugby ball as it is passed between players.

[3]

.....

.....

.....

.....

.....

.....

- (c) Discuss the use of the psychological refractory period during a team sport such as rugby.

[3]

.....

.....

.....

.....

.....

.....

.....

.....

(This question continues on the following page)



(Question 4 continued)

(d) Outline ATP production of the oxidative system.

[2]

.....

.....

.....

.....

.....

.....

(e) Contrast linear and non-linear pedagogical approaches to teaching a rugby tackle.

[5]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....



Disclaimer:

Content used in IB assessments is often taken from authentic, third-party sources. The views expressed within them belong to their individual authors and/or publishers and do not necessarily reflect the views of the IB. Sometimes fictitious companies, products or individuals are included in assessments; any similarities with actual entities are purely coincidental. Any trademarks™ or registered® trademarks included are used for illustrative purposes only, and use does not imply any affiliation with or endorsement by the International Baccalaureate.

References:

- Table 1** Song, Q., Ding, Z., Mao, D., Zhang, V. and Sun, W. (2013). Biomechanics and injury risk factors during race walking. *ISBS Conference Proceedings Archive*, [e-journal] Available at: <https://www.iat.uni-leipzig.de/datenbanken/iks/sponet/Record/4032867> [Accessed 31 August 2024]. Source adapted.
- 2.(d)** ayaankabir. Squat vector. [image online] Available at: <https://www.vecteezy.com/vector-art/104209-squat-vector> [Accessed 11 May 2026].
- Figure 1** vm. 2020. *Female rugby player getting tackled*. [image online] Available at: <https://www.gettyimages.com.au/detail/photo/female-rugby-player-getting-tackled-royalty-free-image/1198693510> [Accessed 11 June 2025]. Source adapted.



Please **do not** write on this page.

Answers written on this page
will not be marked.



12EP12