

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD

INTERMEDIATE MATRICULATION LEVEL 2023 SECOND SESSION

SUBJECT: **Physical Education**DATE: 5th September 2023
TIME: 9:00 a.m. to 11:35 a.m.

This examination paper has **FOUR** sections. Answer **ALL** sections. Follow instructions given in each section.

Section A: Rules, Tactics and Techniques:

You will be shown a total of **FIVE** short clips in the following order:

- ✓ 2 clips on Rules
- √ 1 clip on Technique
- ✓ 2 clips on Tactics

The clips are taken from FIBA European Championship for Small Nations 2022, Malta vs Andorra.

- Step 1: Read through all the questions.
- Step 2: The first clip on rules is played. The same clip is replayed immediately after.
- Step 3: One minute is given to answer the question between clips.
- Step 4: On a signal, the second clip is played, and replayed. The other clips will follow the same pattern.
- Step 5: One minute is given to answer each clip. The same procedure is used throughout Techniques and Tactics. After the clips are all played, and the answering time is over, all the clips are replayed one last time. Candidates are given a final four minute period to make changes and finalise answers.
- Section B: Anatomy & Physiology Answer all questions.
- Section C: Acquiring Movement Skills Answer all questions.
- Section D: Socio-Cultural Studies Answer TWO out of three questions.

Section A: RULES, TACTICS AND TECHNIQUES Answer ALL the questions. This section carries 10 marks.

Rules

1.		In this action, Andorra's National Team (in white) are on offence, however a violation takes place.		
	a. b.	Which rule is violated? Briefly describe this rule.	(1) (1)	
2.		In this action, Malta's National Team (in red) are defending. During this action the official calls a violation.		
	a. b.	What is the violation committed by the Andorra's National Team player? How does the game resume after this call?	(1) (1)	
Ted	chni	que		
3.	a.	yer no. 15 of Andorra wins ball possession and scores. What is the name of the shot used? Why was this shot appropriate to use?	(1) (1)	
Tac	ctics		(+)	
4.	Brie	efly describe TWO tactics used by Andorra (in white) during this action.	(2)	
5.	,			
	a. b.	What defence are Andorra playing? Name ONE advantage of playing this kind of defence.	(1) (1)	
		(Total: 10 mar	ks)	
SECTION B: ANATOMY AND PHYSIOLOGY Answer All the questions. This section carries 35 marks.				
6.	a.	Maria is a triple jumper whose sport imposes a high amount of stress on the knee join i) What kind of cartilage helps Maria in resisting the high amount of stress put on knee? Mention TWO properties of this caritlage.	the (3)	
		ii) Cartilage is avascular. What does this mean?	(1)	
	 b. While preparing to kick a conversion in rugby, Robert makes several m example, there is extension at the hip joint. 		For	
		 i) What kind of movement can be seen in the knee joint during conversion? ii) Mention the antagonist muscle causing this movement in the knee joint. iii) Mention TWO muscles used in the extension of the hip joint. 	(1) (1) (2)	
	c.	Mark is a professional swimmer who specialises in the breaststroke technique. Analof Mark's movement while swimming shows that he is performing general motion.		
		 i) Define general motion. ii) Using the breaststroke technique, explain how general motion is performed. iii) Give ONE example (from any sport), where the body performs angular motion. 	(1)(1)(2)	

- 7. a. The heart is made of muscular tissue and is governed by the autonomic nervous system. The sympathetic and parasympathetic nervous systems are the two subdivisions of the autonomic nervous system which regulate the heart rate.

 i) What is the muscular tissue of the heart called?
 ii) Describe the actions of the sympathetic nervous system to increase heart rate.
 iii) Describe the actions of the parasympathetic nervous system to decrease heart rate.
 b. Michael regularly eats unhealthy food and is suffering from hypertension. Further medical tests showed that Michael's cardiac output was unchanged.
 i) What is hypertension?
 ii) If cardiac output is unchanged, what is the most probable cause of hypertension?
- 8. a. The tidal volume and the frequency of breathing increase significantly during exercise. This is necessary in order to transport oxygen more efficiently within the body.

iii) Explain the difference between systolic and diastolic pressure.

- i) Explain the term anticipatory rise. What causes anticipatory rise? (2)
- ii) What is steady state and when does it happen?

(2)

(2)

- iii) During recovery from exercise, ventilation remains above the normal resting level for some time. Why does this happen? (1)
- b. Alveoli are responsible for the exchange of gases between the lungs and the blood. Surrounding each alveolus is a complex network of capillaries.
 - i) The alveolar walls are very thin. What kind of cells make up the alveolar walls? (1)
 - ii) These cells have a thin lining. What is this thin lining made up of? (1/2)
 - iii) What is the function of this thin lining?

(½)

(1)

(1)

(3)

- iv) Explain the effect of the tiny lumen of the capillaries surrounding the alveoli, on the structure of the red blood cells. (2)
- v) Why is the shape of red blood cells in the capillaries surrounding the alveoli important? (2)

(Total: 35 marks)

SECTION C: ACQUIRING MOVEMENT SKILLS Answer ALL questions. This section carries 20 marks.

- 9. This question is about abilities, practice methods and processes applied to Rugby Union.
 - a. Mention **ONE** example when explosive strength is used in rugby.
 - b. Mention **ONE** practical example how abilities can be developed.
 - c. Explain **TWO** advantages and **TWO** disadvantages of practicing the rugby tackle as a "part practice" method.(4)
 - d. Parallel Processing is where processes occur at the same time. Mention **THREE** simultaneous factors to consider when performing a tackle in Rugby Union. (3)
- 10. In 2009, Donald Thomas switched from university basketball to high jump and became world champion soon after.
 - a. By considering transfer of learning, give **ONE** reason why it was easy for him to change sport. (2)
 - b. Explain how positive transfer of learning can be optimized. (2)
 - c. List the **THREE** sequential phases of learning.
 - d. Identify and justify the types of feedback which would be most appropriate for a learner in the cognitive stage of learning. (4)

(Total: 20 marks)

SECTION D: SOCIO-CULTURAL STUDIES

Answer TWO questions. Each question carries 7.5 marks. This section carries 15 marks.

- 11. The Tokyo 2020 Olympic Games saw the introduction of various new sports, including sports which are outdoor and adventurous.
 - a. Mention **TWO** outdoor and adventurous sports which have been introduced in Tokyo 2020.(1)
 - b. Mention **TWO** advantages of adding outdoor and adventurous activities as sports to the Olympic Programme. (2)
 - c. State the differences between a sport and a physical activity in the context of outdoor recreational activities. (2½)
 - d. If an athlete breaks the Olympic oath by using performance enhancing drugs, which Olympic value does this go against? (1)
 - e. Explain why pursuing excellence is important to Olympism. (1)
- 12. SportMalta's mission is to move a nation through the promotion and development of sport for a healthy, inclusive and successful Malta.
 - a. Explain, by giving practical examples, how SportMalta's programmes are inclusive. $(1\frac{1}{2})$
 - b. SportMalta organizes academies for youths who have the potential to excel in specific sports.
 - i) Mention **ONE** sport under this programme. (1)
 - ii) Explain why it is important that such academies are provided. (2)
 - c. Explain the main aim of the adult programme at SportMalta. (2)
 - d. Mention **ONE** activity offered under the adult programme. (1)
- 13. When pursuing outdoor and adventurous activities, an individual often faces the elements.
 - a. What is the difference between real and perceived risk? Give **ONE** practical example for **each** risk. (1½)
 - b. Participation in physical activity has many benefits.
 - i) Mention **TWO** physical benefits. (2)
 - ii) Mention **TWO** social benefits. (2)
 - iii) Mention **TWO** mental benefits. (2)

(Total: 15 marks)