



SUBJECT:	Physical Education
DATE:	11 th December 2020
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. This paper is marked out of 80 marks.

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 Final Game - FIBA European Championship for Small Countries 2018.

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, Malta National Team (in white) are attacking however a violation takes place.
 - a. Which rule is violated? (1)
 - b. Briefly describe the rule being violated. (1)
2. In this action, Norway National Team (in red) are attacking, but the official stopped the game.
 - a. Which rule is violated? (1)
 - b. Briefly describe the rule being violated. (1)

Technique

3. Player no. 12 of Malta National Team (in white) scored. Describe **TWO** technical components he applied to score. (2)

Tactics

4. In this action, Norway National Team (in red) scored. Describe **TWO** tactical components they applied during this action. (2)
5. Briefly describe **TWO** tactics employed by Player no. 14 of Malta National Team (in white) during this action. (2)

(Total: 10 marks)

SECTION B: ANATOMY & PHYSIOLOGY

Answer **ALL** the questions. This section carries **35** marks.

1. Joints and articulations are an important part of the skeletal system. These are formed where two or more bones meet.
 - a. Humans have three types of joints. These are cartilaginous joints, fibrous joints, and synovial joints.
 - i) Give a brief explanation of what cartilaginous joints are. Provide **ONE** example where we can find this type of joint.
 - ii) Give a brief explanation of what synovial joints are. Provide **ONE** example where this type of joint can be found.
 - iii) Give a brief explanation of what fibrous joints are. Provide **ONE** example where this type of joint can be found.
 - iv) The stability of one type of joint depends on the strength of the muscles crossing the joint and the support provided by ligaments. Mention this type of joint. (5)
 - b. Regular physical activity has many benefits for the human body. When it comes to joints, it can aid with better cushioning of joints, and a greater range of movement.
 - i) What change happens with regular physical activity that helps us have better cushioning of the bones at a joint?
 - ii) Why do we get an improved range of movement with regular physical activity? (4)

- c. Muscle contraction is important for movements that happen in sport. Muscles can contract in different ways.
- What type of muscle contraction do we have when the muscle contracts without any visible movement?
 - What type of muscle contraction do we have in the biceps brachii during the downward phase of a biceps curl?
 - What type of muscle contraction do we have in the triceps when extending the arm? (3)
2. a. The heart is an important organ that is used in every type of physical activity. Like every muscle, the more it is used, the more efficient it will become. For example, trained athletes often experience an enlargement of the heart.
- What is the enlargement of the heart called?
 - Which side of the heart pumps blood at the start of the pulmonary circuit?
 - Name the atrioventricular valves, and state their function.
 - Once physical activity starts, chemoreceptors and baroreceptors inform the cardiac control centre that heart rate needs to increase. What changes do chemoreceptors and baroreceptors detect in the body?
 - After intensive physical activity, acetylcholine is released. What is its function? (7)
- b. The heart muscle, like all other muscles, needs to be supplied with blood in order to work. However, cardiovascular disease can be harmful to the human body.
- Which blood vessels supply the heart muscles with oxygen and nutrients?
 - Define atherosclerosis.
 - What is the link between atherosclerosis and hypertension? (5)
3. a. The alveoli are responsible for the gaseous exchange between the lungs and the blood.
- How is oxygen dissolved from inspired air at the alveoli?
 - Red blood cells are squeezed into a biconcave shape at the alveoli. Why is this important? (5)
- b. Charles is a professional athlete. During one of his events, he was breathing 30 times per minute and inhaled 700ml per breath.
- What is Charles' tidal volume?
 - Explain what is known as dead space.
 - What is minute ventilation?
 - Calculate Charles' minute ventilation. (6)

(Total: 35 marks)

SECTION C: ACQUIRING MOVEMENT SKILLS

Answer ALL questions. This section carries 20 marks.

1. Paul is a 6-year-old child who started football coached sessions.
- Which stage of motor skill learning is Paul likely to be in? Justify your answer. (2)
 - Give **ONE** example of a fundamental motor skill. (1)
 - Justify why the learning of fundamental skills is important for children. (2)
 - Explain the idea that 'knowledge of results' is more important for a beginner learner than an experienced athlete in the learning of skills. (3)
 - Using the Observational Learning Theory, explain how unacceptable sporting behaviour by celebrity athletes can be learnt by young children. (2)

2. Maria is a gymnast practising floor exercises.
 - a. Explain why a gymnastics coach might use mechanical and manual guidance to improve Maria's performances. (2)
 - b. Describe **TWO** strategies the coach can use to ensure that Maria is storing information in her long-term memory. (2)
 - c. Justify why trunk strength is important for a gymnast. (2)
 - d. Using practical examples, compare and contrast **ONE** advantage and **ONE** disadvantage of using the 'whole method' to the 'part method' approach when coaching a gymnastics skill. (4)

(Total: 20 marks)

SECTION D: SOCIO-CULTURAL STUDIES

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

1. The core values of Olympism are Excellence, Respect and Friendship.
 - a. How does doping go against the **THREE** values of Olympism? (3)
 - b. Which are the **THREE** main constituents of the Olympic Movement? (1½)
 - c. With reference to Malta, discuss the importance of supporting elite athletes. (3)
2. Sport and Physical Education programmes are important to develop young people in various ways.
 - a. Give **ONE** example of aesthetic movement sports. (½)
 - b. How are winners decided in aesthetic movement sports? (2)
 - c. Give **TWO** benefits associated with Physical Education. (2)
 - d. Give **ONE** advantage and **ONE** disadvantage of assessments and examinations in Physical Education. (2)
 - e. Mention **ONE** programme SportMalta offers to promote physical activity. (1)
3. Outdoor and adventurous activities have an element of danger associated to them.
 - a. Give **ONE** example of an outdoor and adventurous activity. (½)
 - b. Describe, using **ONE** example, the terms 'subjective danger' and 'objective danger'. (4)
 - c. Explain the terms 'recreation', 'physical recreation' and 'outdoor recreation'. (3)

(Total: 15 marks)