



SUBJECT:	Physical Education
DATE:	9 th September 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.

Section A: Rules, Tactics and Techniques:

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

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

The clips are taken from the European Championship for small countries San Marino 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, Ireland's National Team (in green) are attacking however a violation takes place.
 - a. Which rule is violated? (1)
 - b. Briefly describe the rule being violated (1)

Technique

2. Malta's National Team (in white) were awarded two free throws. Describe **TWO** technical components performed during both free throws (2)
3. Player no. 12 of Ireland's National Team (in green) managed to take ball possession and scores a basket on the other end of the court.
Describe **TWO** technical components which are necessary to take ball possession and manage to score at the other end of the court. (2)

Tactics

4. In this action, Ireland's National Team (in green) managed to score. Describe **TWO** tactical components they applied during this action. (2)
5. Malta's National Team (in white) managed to score during the first seconds of the match. Describe their tactic and give a reason why it is important to utilise this tactic at that stage. (2)

(Total: 10 marks)

SECTION B: ANATOMY & PHYSIOLOGY

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

1. a. Muscles are composed of a large number of individual muscle fibres.
 - i) What holds these muscle fibres together?
 - ii) What are skeletal muscles mainly responsible for? (2)
- b. The skeletal muscle has two main types of fibre: slow-twitch and fast-twitch.
 - i) Fast-twitch fibres are further subdivided into two categories: fast oxidative glycolytic fibres and fast-twitch glycolytic fibres. Explain the difference between these two types of fast-twitch fibres.
 - ii) In athletics, we have various athletes possessing different amounts of slow-twitch fibres, fast oxidative glycolytic fibres and fast-twitch glycolytic fibres. Mention **ONE** athletic event for each type of muscle fibre (**THREE** examples in total) where a large proportion of that fibre would be an advantage for the athlete. (5)

- c. The human body performs a lot of different movements while engaging in physical activity. For example, when shooting a football, we observe extension at the knee joint. What type of movements do we observe in the following examples?
- Movement at the hip during the kick in breaststroke;
 - Movement at the ankle while pointing toes during a handstand;
 - Movement at the elbow while executing a set-shot in basketball. (3)
- d. What is osteoporosis? (2)
2. a. The heart is a muscular pump that is responsible for pumping blood throughout the body. It lies behind the sternum and the ribs.
- Mention the **FOUR** chambers of the heart.
 - Briefly explain what is known as the systemic circuit.
 - What is the septum?
 - Explain how the sympathetic nervous system works. (9)
- b. Atherosclerosis is a cardiovascular disease which can be prevented by regular physical activity and healthy nutrition.
- How can atherosclerosis lead to myocardial infarction?
 - Apart from lack of exercise, mention **ONE** other dependent risk factor.
 - Mention **ONE** other independent risk factor, other than an unhealthy diet. (3)
3. a. Inspiration is an important process by which air enters our body. On its journey to the lungs, air drawn into the body passes many structures. Mention **TWO** structures that inspired air travels through (you can mention structures outside or inside the lungs). (2)
- b. Once inside the lungs, gaseous exchange leads oxygen to diffuse into the pulmonary blood.
- Briefly explain what causes gaseous exchange.
 - Haemoglobin combines with oxygen to form oxyhaemoglobin. How many molecules of oxygen can one molecule of haemoglobin combine with?
 - As blood passes through the body, oxygen is dissociated from haemoglobin. This is even more important during physical activity, where oxygen dissociation becomes more effective. Mention the **FOUR** factors upon which oxygen dissociation is dependent on. (6)
- c. When oxygen enters the muscle cell, it attaches to a substance called myoglobin.
- To where does myoglobin transport oxygen?
 - Compare the affinity of oxygen with myoglobin and haemoglobin. (3)

(Total: 35 marks)

SECTION C: ACQUIRING MOVEMENT SKILLS

Answer ALL questions. This section carries 20 marks.

1. James is a retired basketball player who started playing handball. He is in a game situation about to perform a jump shot.
- Define proprioception. (1)
 - Give an example of an exercise which develops the proprioceptors. (1)
 - Discuss how transfer of learning may take place between basketball and handball. (3)
 - Define explosive strength and explain why it is important for a basketball player. (3)

Please turn the page.

2. Sarah is a professional international senior tennis player.
 - a. Give **TWO** examples of extrinsic motivation. (2)
 - b. Rate Control is an important Psychomotor ability in tennis. Give an example of when this ability is used in tennis. (2)
 - c. Describe the term 'response time'. (1)
 - d. Give **TWO** ways how response times can be improved. (2)

3. A rugby ball carrier is approaching a 1-1 situation where the opposition is about to tackle. The ball carrier decides to use a side-step to deceive the opponent.
 - a. The Psychological refractory period (PRP) is the delay in being able to respond to the second of two closely spaced stimuli. Identify the **TWO** stimuli. (2)
 - b. Mention **ONE** other strategy the ball carrier can take to deceive the opposition. (1)
 - c. Is a side-step in a rugby game an open or closed skill? Explain your answer. (2)

(Total: 20 marks)

SECTION D: SOCIO-CULTURAL STUDIES

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

1. The year 2020 was meant to be an Olympic year.
 - a. In which city were the Summer Olympics meant to be held? (½)
 - b. What was the first sport to represent Malta in the Olympic Games? (1)
 - c. In what year and city was Malta first represented in the Olympic Games? (1)
 - d. Explain the difference between gamesmanship and sportsmanship. (2)
 - e. Mention **THREE** benefits of introducing new sports such as surfing and karate in the next Olympic Games programme. (3)

2.
 - a. What are the objectives of the ASA? (2)
 - b. Mention **TWO** limitations faced by swimmers in Malta. (2)
 - c. Explain the term 'sedentary lifestyle'. (2)
 - d. Mention **THREE** factors contributing to increasingly sedentary lifestyles. (1½)

3. Sport is defined as being institutionalised.
 - a. Explain the term 'institutionalised' in the context of sport. (1½)
 - b. Give **ONE** advantage and **ONE** disadvantage of competitive sports, particularly for children. (2)
 - c. What is the mission of the MFA? (2)
 - d. When was the MFA founded? (1)
 - e. Why was the FA trophy donated to the Malta FA? (1)

(Total: 15 marks)