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SUBJECT:	<b>Physical Education</b>
DATE:	3 <sup>rd</sup> May 2019
TIME:	9:00 a.m. to 11:35 a.m.

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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 the Maltese Premier League 2016.

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. Mosta FC (in blue) are defending and trying to clear the ball. They are passing and trying to find an open space. A Valletta FC (in white) player was denied ball possession as he was hit by Mosta FC player.
  - a. Identify the violation in this action? (1)
  - b. Briefly describe this rule. (1)
2. In this action, a Pembroke player (in blue) was denied from concluding the action.
  - a. Which rule is applied here? (1)
  - b. Briefly describe this rule. (1)

### **Technique**

3. Birkirkara FC (in yellow) are in possession of the ball. The player plays a free kick. Describe **TWO** technical components which are necessary to take the free kick. (2)

### **Tactics**

4. Mosta FC (in blue) take possession of the ball. Describe the tactic they used to win possession of the ball and counter-attack. (2)
5. Valletta FC (in white) scored. Describe the tactic they used to start their attack from the middle of the field and move the ball upfield to conclude. (2)

**(Total: 10 marks)**

## **SECTION B: ANATOMY & PHYSIOLOGY**

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

1. a. One of the functions of the skeletal system is blood cell production. Bone marrow produces both red and white blood cells.
  - i) Explain where red blood cells are generally produced.
  - ii) Explain where white blood cells are generally produced. (2)
- b. What is meant by Axial Skeleton? Provide **TWO** examples of bones that form the Axial Skeleton. (2)
- c. Bone is composed of approximately 35% organic tissue, such as collagen.
  - i) What is collagen?
  - ii) What characteristic does collagen provide to bones?
  - iii) Why is this characteristic important to bones? (3)
- d. A good warm-up has a lot of physiological benefits. One of these benefits is increased speed and force of muscle contraction.
  - i) Due to which factors is there an increase in speed and force of muscle contraction after a warm-up?
  - ii) Mention **THREE** physiological effects brought about by the part of the warm-up focusing on cardiovascular exercise. (5)

2. a. The heart is myogenic and beats around 72 times per minute.
- i) What does myogenic mean?
  - ii) Give a brief explanation of what determines the heart rate.
  - iii) Why is there a delay from when the atrioventricular node receives stimulation to when it distributes the action potential? (5)
- b. There is a drastic change in blood flow when comparing the body at rest and while exercising. This happens because the body undergoes a process.
- i) What is this process called?
  - ii) Explain what happens during this process. (3)
- c. About 97% of oxygen is carried by red blood cells as it combines with haemoglobin.
- i) What is haemoglobin?
  - ii) How many oxygen molecules can combine with each molecule of haemoglobin?
  - iii) Once haemoglobin chemically combines with oxygen, a new substance is formed. What is this substance called? (4)
3. a. Inspiration is an active process because it occurs as a result of the contraction of the respiratory muscles.
- i) Name the **TWO** main respiratory muscles.
  - ii) Explain in detail what happens in the body from when these muscles contract until air is inspired. (9)
- b. Sabrina is a smoker and this is having a negative effect on her respiratory system. How does the carbon monoxide found in cigarette smoke affect transport of oxygen in the blood? (2)

**(Total: 35 marks)**

### **SECTION C: ACQUIRING MOVEMENT SKILLS**

**Answer ALL questions. This section carries 20 marks.**

1. Fleishman identified nine Gross Motor Abilities.
- a. Compare and contrast the gross motor abilities required by a high jumper and a long distance runner. (4)
  - b. Environmental conditions affect movement skills. List **FOUR** environmental conditions which affect a football pass in a competitive game. (2)
  - c. Give **ONE** example of when the Distributed and Massed training methods are preferably used during a training session focusing on football passing. (2)

***Please turn the page.***

2. When learning a new skill, a learner goes through three phases of motor learning.
  - a. Identify the **THREE** phases of motor learning. (1.5)
  - b. Giving **ONE** sporting example, describe the key characteristics of the first phase of motor skill learning. (2.5)
  - c. Give **ONE** example of how technology may be used to provide visual guidance to a performer. (1)
3. a. Why is sport an important aspect of socialisation? (2)  
b. Explain how young learners may be influenced by role models. (2)
4. Jane is a hockey player about to give a penalty shot. Is the movement pattern of the penalty shot of open loop control or of closed loop control? Briefly justify your answer. (3)

**(Total: 20 marks)**

#### **SECTION D: SOCIO-CULTURAL STUDIES**

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

1. a. The Games of the Small States of Europe will be held in Montenegro in 2019.
  - i) What is the time lapse between one edition and another of the GSSE? (0.5)
  - ii) Mention **TWO** countries, apart from Malta, that participate in these Games. (1)
- b. Explain why doping control should be enforced among amateur athletes and not only restricted to professional athletes. (6)
2. a. At the start of the 1900s, waterpolo was already a popular sport in Malta. Describe which historical waterpolo events led to the creation of the ASA and eventually the MOC. (3)
- b. In 1959, the Malta Football Coaches Association was formed. Why was this important for the development of Maltese football? (2.5)
- c. Explain the difference when football is played as a sport and as a form of physical recreation. (2)
3. a. Mention **TWO** factors that contribute to a sedentary lifestyle. (2)
- b. Mention **ONE** programme offered by Sportmalta that encourages people to be more physically active. (1)
- c. How do programmes offered by Sportmalta promote an "inclusive" moving Malta? (2)
- d. Why should physical activity be promoted particularly among the Maltese population? (2.5)

**(Total: 15 marks)**