

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD
UNIVERSITY OF MALTA, MSIDA
MATRICULATION EXAMINATION
INTERMEDIATE LEVEL
MAY 2016

SUBJECT:	PHYSICAL EDUCATION
DATE:	20 th May 2016
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 in Team Games – Answer all the questions.

You will be shown a total of 5 short clips in the following order:

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

The clips are taken from a BOV Division One men basketball league game between VIRTUS (in White kits) and FLORIANA (in green kits).

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 re played. The other clips will follow the same pattern.

Step 5: One minute is given to answer each clip.

The same procedure is used throughout Tactics and Techniques. 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 4 minute period to make changes and finalise answers.

Section B: Anatomy and Physiology: Answer all questions

Section C: Acquiring Movement Skills: Answer all questions

Section D: Socio-Cultural Studies and the Role and the Structure of International and Local Sport Organisations: Answer two out of three questions

SECTION A: Techniques, Tactics and Rules in Team Games – Answer ALL questions.

Rules

1. VIRTUS (in white) are attacking. The ball is passed in the corner and it is returned back to the playmaker, however the ball is not caught. The playmaker recovers the ball, however the official calls a violation.
 - a. What is the name of this violation? (1)
 - b. How does the game resume after this call? (1)

2. VIRTUS are attacking. VIRTUS player no. 11 cuts to the free throw line to receive the ball and turns for a shot. He misses the shot but is fouled whilst shooting.
 - a. How will the game resume? (1)
 - b. If player no 11 scored the basket even though he was fouled, how would the game resume? (1)

Tactics

3. FLORIANA (in green) are on defence
 - a. What defence are FLORIANA playing? (1)
 - b. Name **one** advantage of playing this kind of defence. (1)

4. VIRTUS get the rebound and they go on attack.
 - a. What tactic does VIRTUS use in this attack? (1)
 - b. Why was this offence successful? (1)

Techniques

5. Player no. 6 of FLORIANA steals the ball and scores a basket on the other end of the court.
 - a. What is the name of the shot used? (1)
 - b. Why was this shot appropriate to use? (1)

SECTION B: Anatomy and Physiology: Answer ALL questions.

6. a. The skeleton can perform five major functions. Mention and briefly explain three of these functions. (3)
- b. Different types of synovial joints allow different types of movements.
- Which type of synovial joint allows the widest range of movement?
 - What type of movement pattern is only allowed by the synovial joint described in 6)b)i)? (2)
- c. Charles is a powerlifter and has a large proportion of fast-twitch muscle fibres. These muscle fibres are subdivided into two types.
- Mention the type of fast-twitch muscle fibres mostly needed by Charles, considering that powerlifting is an activity of high intensity and needs a very strong force of contraction.
 - Mention **two** reasons why this type of fast-twitch muscle fibre provides stronger, more powerful contraction. (3)
- d. A 100m sprinter will typically decelerate around the 80 to 90 meters mark. Mention the main reason why such a deceleration takes place. (3)
- e. Steve is a basketball player and regularly does plyometric training. Mention **two** aspects that can be improved by plyometric training. (1)
7. a. Maria is a trained athlete who has cardiac hypertrophy.
- Explain what 'cardiac hypertrophy' means.
 - Which **two** chambers of the heart are more muscular? Why?
 - Briefly describe what systemic circulation is.
 - Which blood vessels provide Maria's heart with oxygen and nutrients to keep it working? (4)
- b. A healthy but untrained person typically has a resting stroke volume of 75ml. A trained athlete can however have a significantly higher stroke volume. Mention and explain the **three** main factors that have an impact on stroke volume. (6)
- c. Patrick regularly eats unhealthy food. During a recent visit to the doctor, Patrick discovered that he is suffering from hypertension. Further tests show that Patrick's cardiac output was unchanged.
- Define 'hypertension'?
 - If cardiac output is unchanged, what is most probably causing hypertension? (2)

Please turn the page.

8. a. Inspiration is a process by which air from outside the body enters the lungs. Explain in detail what causes a decrease in intrapulmonary pressure to allow inspiration. (3)
- b. Alveoli are very important in the respiratory system. They enable the exchange of gases between the lungs and the blood.
- i) What kind of cells make up the alveolar walls?
 - ii) These cells have a thin lining. What is this thin lining made up of?
 - iii) What is this thin lining responsible for? (3)
- c. Claire smokes 15 cigarettes a day. Smoking is a health hazard and can cause many health complications. The tar contained in cigarettes causes direct harm to the respiratory system. Claire finds it hard to engage in physical activity, as she quickly experiences shortness of breath. Explain the harm caused by tar found in cigarettes. (3)
- d. The 1968 Summer Olympic Games were held in Mexico City, which is situated 2,240m above sea level.
- i) During these games, many records were set in athletic events up to 1,500m. Give a possible reason for this.
 - ii) During the same Olympic Games, no records were set for distances over 1,500m. How can you explain this? (2)

SECTION C: Acquiring Movement Skills – Answer ALL questions.

9. Maria started playing Handball. She is a slow learner and it took time for her to grasp new skills. However, when she learns things, she learns them for good. Maria needs to create images in her head and ‘see’ things to understand them.
- a. Draw a graph of Successful Performance vs Number of Trials done indicating a slow learner learning curve. (1)
- b. In which stage of motor skill learning does Maria need to spend most time in, in order to learn the new skills? (1)
- c. Taking into consideration her style of learning, give **one** example of what her coach can do to guide her better. (1)
- d. Give **one** example of a specific activity or movement from another Sport in which Maria can positively transfer from Handball. Briefly explain why this is possible. (3)

10. Figure 1.1 and 1.2 show actions from the game of rugby.



Figure 1.1



Figure 1.2

Figure 1.1 and Figure 1.2: Actions in rugby

- a. Mention the name of the actions shown in Figure 1.1 and Figure 1.2. (1)
- b. Compare and Contrast these two actions using the Open/Closed Continuum, Simple/Complex Continuum and Low/High Continuum. (6)

11. Figure 2 shows an action from a water polo game.



Figure 2 Action from water polo game

- a. Mention **two** fundamental skills which are important to this sport. (2)
- b. With reference to the athletic development of an advanced water polo player, why is mastery of fundamental skills important? (2)
- c. Mention **one** practice method and give **one** example of an activity using this method which would improve shooting in water polo. (2)
- d. Which Gross Motor Ability is the athlete shooting the ball showing? (1)

Please turn the page.

SECTION D: Socio-cultural Studies – Answer TWO questions.

12. According to the WHO, “Overweight and obese children are likely to stay obese into adulthood”.
- a. Give **three** practical steps a child can take to tackle the obesity issue on an individual level.(3)
 - b. Give **one** example of what the government can do to tackle this issue. (1.5)
 - c. State **two** factors which can hinder a child from participating in sport or physical activity. (2)
 - d. Children at play develop their socialisation process. Mention **two** socialisation examples. (1)
13. All people of different ages and walks of life can benefit from being more physically skilled and physically active.
- a. i) Give **two** reasons why it is important that adults engage in physically active leisure activities. (2)
 - ii) Mention a programme SportMalta offers to this particular section of society. (1)
 - b. Mention a way PE teachers affect the socialiation of children in aspects of sports participation. (1)
 - c. i) What is outdoor education? (1)
 - ii) Give **two** examples of how outdoor activities contribute to increasing physical activity in children. (2.5)
14. 2016 is a summer olympic year.
- a. In which city are these games going to be held? (1)
 - b. Which are the main **three** constituents of the Olympic Charter? (1.5)
 - c. Briefly explain the Olympic Charter. (2)
 - d. What is the mission of the IOC? (1)
 - e. One of the core values of Olympism is the balance between mind and body. How can this be achieved in everyday life? (2)