

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD
UNIVERSITY OF MALTA, MSIDA
MATRICULATION EXAMINATION
INTERMEDIATE LEVEL
MAY 2014

SUBJECT:	PHYSICAL EDUCATION
DATE:	28th May 2014
TIME:	4.00 p.m. to 6.30 p.m.

This examination paper has four sections. Answer all sections. Follow instructions given in each section.

Section A: Techniques, Tactics and Rules in Team Games: You will be shown a total of 5 short clips in the following order:

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

The clips are taken from the Volleyball super league mens' game between FDL OFFICE GROUP (in white) and VALLETTA SAN ANTONIO (in colours)

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 questions on 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. Students 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 the questions.

Rules

1. In this action, FDL Office Group (in white) is attacking, however a violation takes place.
 - a) What is the violation taking place here? [1]
 - b) Briefly describe this rule. [1]

2. In this action, Valletta San Antonio (in colours) are attacking, however another violation, which is signalled by the officials takes place.
 - a) Briefly describe this violation. [1]
 - b) How does the game resume? [1]

Technique

3. Valletta San Antonio are attacking. The team sets up a good spike which was successful. FDL Office Group tried to block the spike but were not successful.
 - a) Identify the fault in the double block used by the defending team. [1]
 - b) Briefly describe the position of the hands in a proper blocking position. [1]

4. Valletta San Antonio are on the receiving end. The libero makes contact with the ball using a specific technique.
 - a) What is the name of this technique? [1]
 - b) List two main components needed to perform this technique appropriately. [1]

Tactics

5. This action shows players of FDL Office Group (in white) changing position on court after their teammate serves.
 - a) Give a reason why these players are changing their position. [2]

Section B: Anatomy and Physiology - Answer all questions

6. a) Skeletal muscles possess three essential properties that are essential for body actions like movement. Mention these three properties and give a brief explanation for each of them. [3]

- b) During movement, the agonist muscle contracts to allow movement. Therefore, when a person flexes his/her arm at the elbow the biceps is the agonist muscle. Which is the fixator muscle in this movement and what is the role of fixator muscles? [2]

- c) Explain what is meant by Pronation. Give an example. [1]

- d) Regular physical activity has an impact on the skeletal and muscular systems.
- i) Mention two advantages of regular physical activity on the skeletal system. [2]
 - ii) Mention two advantages of regular physical activity on the muscular system. [2]
- e) Kay is a female gymnast performing the bar. Balance is very important for Kay while performing her sequence. Mention two factors that affect the stability of a performer. [2]
7. a) What is oxyhaemoglobin? [1]
- b) Give a detailed explanation of blood flow through the heart. [4]
- c) What happens in the atrial systole phase? [2]
- d) Briefly define:
- i) Stroke Volume [1]
 - ii) Cardiac Output [1]
- e) i) What is blood viscosity in terms of red blood cell and plasma volumes?
- ii) Joseph started engaging himself in regular physical activity and training. This should have an impact on blood viscosity. State what happens to Joseph's red blood cell volume, plasma volume, and blood viscosity in the long-term. [3]
8. a) Daniel is a long-distance runner. He has decided to start altitude training. Briefly explain what happens to Daniel's body when doing altitude training, and why these changes occur. [2]
- b) Various factors help with respiratory regulation. Explain how the following carry out the function of helping with respiratory regulation.
- i) Thermoreceptors [1]
 - ii) Chemoreceptors [1]
 - iii) Proprioceptors [1]
- c) The tidal volume and the frequency of breathing increase during exercise. This helps to transport more oxygen where needed in the body.
- i) What is anticipatory rise and what causes it? [2]
 - ii) What is steady state and when does it happen? [2]
 - iii) What stimulates the respiratory centre to continue increasing ventilation during maximal intensity exercise? [3]

SECTION C: Acquiring Movement Skills - Answer all questions

1. Learning is sequential as we move through specific stages.
 - a) Identify the three stages of motor skill learning. [1]
 - b) Give the characteristics of the *first two* stages of motor skill learning. [4]

2. The classification of skills can help us understand better movement skills. Describe the two extremes of the 'environmental influence' and the 'muscular involvement' continua. Use examples of motor skills to support your answers. [5]

3. a) What is 'selective attention'? Give practical examples of how a tennis player uses selective attention during a game. [2]
- b) Explain, using a 100 metre race as an example, the difference between reaction time, movement time and response time. [3]

4. Joseph, an ex-basketball player, takes up handball training. During his initial training sessions, he continually committed 'carrying of the ball' when dribbling.
 - a) Name and describe the type of transfer occurring when performing this movement skill. [2]
 - b) As a coach, suggest a number of strategies of how to overcome or reduce the effect of this situation. [3]

SECTION D: Socio-Cultural Studies and the Role and the Structure of International and Local Sport Organisations - Answer any two questions.

1. In July 2013, a local researcher reported that Maltese 10 and 11 year old children ranked the 'second fattest on the planet'. Physical inactivity can lead to obesity.
 - a) Give four other reasons why young children should do regular physical activity. [4]
 - b) What factors have led young children to participate less in regular physical activity in recent years? [3]

2. a) Explain the term 'Olympic Solidarity'. [2]
- b) Mention some objectives of the programmes adopted by the 'Olympic Solidarity'. [5]

3. a) 'ArtiSport' is one of the sports programmes offered by the KMS. Explain how the name ArtiSport came about and the concept behind this programme. Give examples of some physical activities practised in this programme. [3]
- b) Among the programmes offered by the Kunsill Malti Għall-Isport (KMS), one finds two Skola Sport programmes targeting children under the age of 10 years. Explain the aims of these programmes and name the basic sports offered at this level. [4]