



**‘2018 Examination Package’ -
Trial Examination 5 of 7**

STUDENT
NUMBER

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PHYSICAL EDUCATION

Unit 3 & 4 – Written examination

(TSSM’s 2015 trial exam updated for the current study design)

Reading time: 15 minutes

Writing time: 2 hours

QUESTION & ANSWER BOOK

Structure of book

<i>Section</i>	<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
A	15	15	15
B	10	10	105
			Total 120

- Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners and rulers
- Students are NOT permitted to bring into the examination room: blank sheets of paper and/or white out liquid/tape.
- No calculator is permitted in this examination.

Materials supplied

- Question and answer book of 19 pages.

Instructions

- Print your name in the space provided on the top of this page.
- All written responses must be in English.

Students are NOT permitted to bring mobile phones and/or any other unauthorised electronic communication devices into the examination room.

SECTION A – Multiple-choice questions

Instructions for Section A

Answer **all** questions.

Choose the response that is **correct** or that **best answers** the question.

A correct answer scores 1, an incorrect answer scores 0.

Marks are **not** deducted for incorrect answers.

If more than 1 answer is completed for any question, no mark will be given.

Question 1

The formula for velocity is:

- A. Distance x Time
- B. Displacement x Time
- C. Displacement / Time
- D. Distance / Time

Question 2

Which of the following would be the best example of a closed skill?

- A. Horse riding
- B. Batting in baseball
- C. Darts
- D. Surfing

Question 3

The term that refers to the body's change in position in relation to time is:

- A. Movement
- B. Motion
- C. Momentum
- D. Impulse

Question 4

Which of the following sports would rely most on muscular endurance?

- A. Rowing
- B. High Jump
- C. Shot Put
- D. Weightlifting

SECTION A - continued

Question 5

Which of the following is not an appropriate way to add resistance to the resistance training exercise below?

Bicep Curls 3 sets 15 reps 12kg

- A. Add 1kg.
- B. Add 1 set.
- C. Add 1 repetition.
- D. Add one set and decrease reps to 12.

Question 6

How many plyometric sessions per week should be included in a training program designed to enhance muscular power?

- A. 5
- B. 4
- C. 3
- D. 2

Question 7

Which of the following types of practice is broken up into smaller practice intervals with rest periods?

- A. Discrete
- B. Serial
- C. Massed
- D. Distributed

Question 8

Which of the following drinks would be most appropriate when an athlete is suffering from severe dehydration?

- A. Isotonic drinks.
- B. Hypotonic drinks.
- C. Hypertonic drinks.
- D. Soft drinks.

SECTION A - continued
TURN OVER

Question 9

What proportion of a normal diet should be made up of fats?

- A. 10-15%
- B. 25-30%
- C. 55-60%
- D. 60-70%

Question 10

Which of the following is NOT a component of a lever?

- A. Force
- B. Anchor
- C. Resistance
- D. Axis

Question 11

Which of the following athletes is most likely to suffer the effects of accumulated H^+ ions?

- A. A 100m freestyle swimmer.
- B. A long jumper.
- C. A race walker.
- D. A pole vaulter.

Question 12

Which of the following is not a stage of skill learning?

- A. Autonomous
- B. Cognitive
- C. Associative
- D. Formative

Question 13

A VO_2 max test would be considered...

- A. A direct test
- B. A field test
- C. A submaximal test
- D. A test of muscular strength

SECTION A - continued

Question 14

Which of the following is not a factor that affects aerobic capacity?

- A. An efficient and strong heart.
- B. Muscle fibre arrangement.
- C. Healthy blood vessels.
- D. Sufficient levels of haemoglobin in the blood.

Question 15

Which of the following training methods is likely to have the greatest impact on deferring LIP?

- A. Fartlek Training
- B. Short Interval Training
- C. Resistance Training
- D. Plyometrics

**END OF SECTION A
TURN OVER**

SECTION B - Short-answer questions

Instructions for Section B
Answer **all** questions in the spaces provided.
Answer this section using a **pen**.

Question 1 (11 marks)

a. Explain each of the components of a lever

3 marks

b. What advantage do levers provide ?

2 marks

c. Draw a diagram of a calf raise exercise being performed and label each of the three components of the lever.

3 marks

SECTION B - Question 1 - continued

d. How are levers classified? Explain using the three components of levers.

4 marks

e. The human body primarily consists of which class of lever? _____

1 mark

Total 11 marks

Question 2 (10 marks)

Georgina is a year 8 volleyballer who can demonstrate effective technique when performing digging and setting skills, however there is a lack of consistency in the performance of these skills, particularly when under pressure in game situations.

a. List the stage of learning most applicable to Georgina’s volleyball skills and suggest two strategies appropriate to this level of performance that a coach may offer.

3 marks

SECTION B - Question 2 – continued
TURN OVER

- b. Outline how a constraints-based approach to learning may be effective in improving Georgina's skill level under pressure

3 marks

- c. What is the major fitness component required for the jumping movements during spiking in volleyball?

1 mark

- d. For the component listed above, what is the most appropriate and specific fitness test?

1 mark

- e. Outline how this fitness component can be trained. Use specific examples.

2 marks

Total 10 marks

SECTION B - continued

Question 3 (11 marks)

NFL running back Marshawn Lynch, who plays for the Seattle Seahawks, recently opened the 2014 season against the Green Bay Packers. His stats for the game can be seen below.

Attempted Runs	Total metres gained (m)	Average metres per run (m)	Longest run (m)
20	110	5.5	21

An NFL game is of 60 minutes duration but with breaks (time-outs, quarter and half-time breaks), taking over two hours to complete. A running back needs to move quickly to attempt to find an opening in the defensive line and attempt to sprint to gain distance down the field.

- a. Name two fitness components that would be important for Marshawn Lynch.

2 marks

- b. Marshawn Lynch would almost certainly undertake Short Interval Training as part of his preparation. Describe how you would plan Short Interval Training for an athlete such as Lynch.

4 marks

- c. Name two other training methods that Lynch could use to enhance his performance.

2 marks

SECTION B - Question 3 - continued
TURN OVER

- d. Outline how you would apply the principles of Frequency, Intensity and Duration to the training methods stated in parts **b.** and **c.**

3 marks
Total 11 marks

Question 4 (12 marks)

Newton’s Laws are extensively used and applied to assist with describing the relationship between forces and objects.

- a. Complete the table below by identifying the name of each of Newton’s Three Laws and provide an example of each law from the game of soccer.

	Newton’s Law commonly referred to as the Law of	Example of law from the game of soccer
NEWTON’S 1st LAW		
NEWTON’S 2nd LAW		
NEWTON’S 3rd LAW		

6 marks

SECTION B - Question 4 – continued

b. The use of levers is important in the game of soccer.

i. Which class of lever would be involved in a soccer throw in?

ii. Where would each of the three parts of the lever be found in this example?

1 + 3 = 4 marks

c. Provide an example of how impulse can be used to absorb force over a longer period of time in the game of soccer

2 marks

Total 12 marks

SECTION B - continued
TURN OVER

Question 5 (8 marks)

A games analysis of a tennis player has allowed a coach to determine that the following fitness components are very important to their performance.

- Aerobic Capacity
- Muscular Endurance
- Speed
- Agility

Name a test you would use to evaluate each of these fitness components for a tennis player. Provide justification for each test selected.

8 marks

SECTION B - continued

Question 6 (10 marks)

Below is a very brief outline of one week from a training program for an individual attempting to increase their speed, muscular power and anaerobic power.

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Plyometrics	Short Interval Training	Plyometrics	Short Interval Training	Plyometrics	Rest	Short Interval Training

- a.** Identify one error you can see in the brief outline above and how you would correct it.

2 marks

- b.** Name an additional training method that could be used to improve these fitness components and outline how you would undertake this type of training.

6 marks

- c.** Outline two ways in which overload could be applied to the training method described in **b.**

2 marks

Total 10 marks

SECTION B - continued

TURN OVER

Question 7 (18 marks)

During the 2014 Giro d'Italia, one of the three grand cycling tours on the UCI calendar, Nacer Bouhanni of France was able to win three of the first 10 stages. Bouhanni won each of his three stages in bunch sprints where he was able to outsprint all the other riders in the field to cross the line first. Details of the three stages won by Bouhanni can be seen below.

Stage no.	Start - Finish	Distance	Time
4	Giovinazzo - Bari	112km	2:22:02
7	Frosinone - Foligno	211km	5:16:05
10	Modena – Salsomaggiore Terme	173km	4:01:13

- a.** Outline the interplay of energy systems throughout each of the three stages that Bouhanni won.

10 marks

SECTION B - Question 7 - continued

- b. When the race entered the mountain stages, where there are climbs that last as long as 20km, Bouhanni was unable to remain with the leaders. What chronic adaptations are from training are likely to result in the leaders being able to leave Bouhanni behind in the mountains?

3 marks

- c. Throughout the stages, Bouhanni can be seen taking drinks from his water bottles. These contain an isotonic drink. Define what an isotonic drink is and what it is used for.

2 marks

- d. At the conclusion of each day, fuel replenishment is critical so that they are able to race at their peak on the following day. Outline how fuel replenishment should be conducted for Bouhanni at the end of each stage.

3 marks

Total 18 marks

SECTION B - continued

TURN OVER

Question 8 (13 marks)

At the London Olympics in 2012, Felix Sanchez won the Gold Medal in the men's 400m Hurdles event. He completed three rounds of competition. His results are below.

Round 1	August 3	49.24 secs (11 th Qualifier)
Semi-finals	August 4	47.76 secs (1 st Qualifier)
Final	August 6	47.63 secs (Gold Medal)

a. State the predominant energy system throughout the duration of the 400m hurdles.

1 mark

b. State the predominant energy system as Felix Sanchez crosses the finish line.

1 mark

c. State the main cause of fatigue during this event and how it causes fatigue.

4 marks

SECTION B - Question 8 - continued

- d.** What type of recovery should be undertaken at the conclusion of Round 1 and the Semi-Final to ensure Sanchez is recovered for the next round of competition. Why?

4 marks

- e.** Other than the recovery strategy identified in part **d.**, outline another practice that Sanchez could utilise after each round of competition to enhance his recovery.

3 marks

Total 13 marks

SECTION B - continued
TURN OVER

Question 9 (4 marks)

Below is an excerpt from the resistance training program of an individual attempting to improve their maximum muscular strength;

Exercise	Sets	Repetitions	Resistance
Bench Press	4	2	90% 1RM

- a. Apply the training principle of Progressive Overload to the training program displayed above.

Exercise	Sets	Repetitions	Resistance
Bench Press			

1 mark

- b. How long should the recovery be between each set?

1 mark

- c. Outline the rationale behind this length of recovery between sets.

2 marks

Total 4 marks

SECTION B - continued

Question 10 (6 marks)

The Inverted U Hypothesis suggests that there is an optimal level of arousal that results in optimal performance. Athletes whose arousal levels are either above or below this optimal range may experience less than optimal performance.

- a.** State two characteristics of an individual who is under-aroused.

2 marks

- b.** State two characteristics of an athlete who is over-aroused.

2 marks

- c.** Name a method that would assist in getting each of the two individuals in part **a.** and **b.** into the optimal arousal range.

2 marks

Total 6 marks

END OF QUESTION AND ANSWER BOOK