For Performance Measurement

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Advanced Level

SPORT SCIENCE & TECHNOLOGY 6080/1

PAPER 1

SPECIMEN PAPER 2 hours 30 minutes

TIME: 2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES

Write your name, centre number and candidate number in the spaces provided on the answer paper/answer booklet.

Answer **all** questions in Section A and any **five** from Section B.
Start Section B on a new sheet of answer paper.

If you use more than one sheet of paper, fasten the sheets together.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [ ] at the end of each question or part question.

You are reminded of the need for good English and clear presentation in your answers.
Calculations may be used.

This specimen paper consists of 4 printed pages.

Copyright: Zimbabwe School Examinations Council, Specimen Paper.

Section A

Answer **all** questions in this section. Each question carries 8 marks. Candidates are advised to spend not more than **one hour** in this section.

1 From the list below, choose **one** word that describes synovial joints movements. Plantar Flexion, Supination, Flexion, Abduction, Extension, Rotation, Adduction, Circumdation.

	Description	Movement
(a)	Palm moves to face backwards	
(b)	Moving a body part so that if follows a circular motion	
(c)	Moving a body part away from the midline	
(d)	Straightening parts at a joint	
(e)	Walking on tiptoes.	
(f)	Moving a body part towards the midline.	
(g)	Moving a body part around an axis	
(h)	Bending body part at a joint.	

[8]

[Total 8]

2 **(a)** Describe the 3rd Newton's law of motion giving a sport specific example of its application? [4]

(b) Explain the factors that contribute to the reduction of the "tugging" effect of air resistance in any two sporting disciplines? [4]

[Total: 8]

3 **(a)** What is carbohydrate loading? [2]

(b) Explain the importance of carbohydrate loading to an athlete. [6]

[Total 8]

4 **(a)** Define the following terms:

(i) Systolic pressure, [1]

(ii) Diatolic pressure. [1]

(b) If an athlete suddenly stops performing strenuous exercise, their blood pressure drops dramatically. Explain the cause of this sudden drop in blood pressure? [6]

[Total: 8]

5 **(a)** Define sports technology. [1]

(b) Describe how sport technology is being applied in any four aspects or areas of sport to improve performance. [4]

(c) Identify **three** disadvantages of using technology in sports. [3]

[Total 8]

Section B

Answer any **five** questions in this section. Each question carries 12 marks.

6 Analyse the skeletal muscle, highlighting its constituent features and functions during exercise. [12]

7 **(a)** What are the effects of lactic acid build up in a muscle? [3]

(b) State the causes of delayed onset muscle soreness? [3]

(c) What are the ways of preventing delayed onset muscle soreness? [3]

(d) Explain the effects of warm up on body systems. [3]
[Total: 12]

8 **(a)** Describe the role of Adenosine triphosphate (ATP) in the processes of muscle contraction. [5]

(b) Describe the kerb cycle. [4]

(c) Calculate the maximum heart rate for the following:

(i) 65 year old

(ii) 45 year old

(iii) 30 year old [3]
[Total: 12]

9 What are the effects of aerobic and anaerobic training? [Total: 12]

10 In any sport of your choice, what are the factors affecting fitness. [Total: 12]

11 **(a)** State and explain nutritional elements that are important in an athlete's diet. [4]

(b) Explain the role of enzymes in digestion. [4]

(c) Outline any **four** functions of water in the human body. [4]
[Total: 12]

12 Motivation is a key component in learning and performance of motor skills in sports. Discuss the theory of achievement. [Total:12]

13 Analyse Newton's laws of motion using concrete examples in sports. [Total: 12]

14 Discuss trait perspective behaviour in sport. [Total: 12]

15 Analyse the effects of media in sports. [Total: 12]