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**SUPPLEMENTARY EXAMINATION**

**PROGRAMME** : HUMAN MOVEMENT STUDIES

**MODULE NAME** : KINESIOLOGY

**MODULE CODE** : KIN 01B1 / HMS 1BA1 / HMS 2BB1 / MBK 1B01 / MBK 1B02 / BIK 01Y1

**DATE** : JANUARY 2017

**DURATION** : TWO (2) HOURS

**TOTAL MARKS** : 100 MARKS

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**NUMBER OF PAGES** : SIX (6) PAGES

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**INSTRUCTIONS TO CANDIDATES:**

**ANSWER ALL THE QUESTIONS.**

**SECTION A IS WELLNESS AND SPORT INJURIES.**

**SECTION B IS MEASUREMENT AND EVALUATION.**

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## **SECTION A: WELLNESS AND SPORT INJURIES (50 MARKS)**

### **QUESTION 1 (23 MARKS)**

1.1 Identify five (5) signs of inflammation. [5]

1.2 Identify five (5) methods to prevent injuries. [5]

1.3 List (5 marks) and explain (5 marks) the general recommended treatment for common injuries. [10]

1.4 Identify the types of fractures from the following x-rays: [3]

a.



b.



c.



## **QUESTION 2 (10 MARKS)**

2.1 List five (5) strategies for managing stress. [5]

2.2 List the five (5) health-related components of fitness. [5]

## **QUESTION 3 (7 MARKS)**

3.1 Look at food label A below and a.) Calculate the calories that come from fat (1), b.) Calculate the calories that come from carbohydrate (1), and c.) Calculate the calories that come from protein (1). [3]

**Label A**

<b>Nutrition Facts</b>	
Serving Size 1 cup (245g)	
Servings Per Container	
Amount Per Serving	
<b>Calories</b> 80	Calories from Fat 0
% Daily Value*	
<b>Total Fat</b> 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
<b>Cholesterol</b> 5mg	2%
<b>Sodium</b> 105mg	4%
<b>Total Carbohydrate</b> 12g	4%
Dietary Fiber 0g	0%
Sugars 12g	
<b>Protein</b> 8g	
Vitamin A 10%	Vitamin C 0%
Calcium 30%	Iron 0%
* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	

3.2 Look at food label B below and a.) Calculate the calories that come from fat (1), b.) Calculate the calories that come from carbohydrate (1), and c.) Calculate the calories that come from protein (1). [3]

**Label B**

<b>Nutrition Facts</b>	
Serving Size 1 cup (244g)	
Servings Per Container	
Amount Per Serving	
<b>Calories</b> 120	Calories from Fat 45
% Daily Value*	
<b>Total Fat</b> 5g	8%
Saturated Fat 3g	15%
Trans Fat 0g	
<b>Cholesterol</b> 20mg	7%
<b>Sodium</b> 100mg	4%
<b>Total Carbohydrate</b> 11g	4%
Dietary Fiber 0g	0%
Sugars 11g	
<b>Protein</b> 8g	
Vitamin A 10%	Vitamin C 0%
Calcium 30%	Iron 0%
* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	

3.3 Comparing the two food labels, which product would you recommend is the better option for consumers? [1]

**Label A**

<b>Nutrition Facts</b>	
Serving Size 1 cup (245g)	
Servings Per Container	
Amount Per Serving	
<b>Calories</b> 80	Calories from Fat 0
% Daily Value*	
<b>Total Fat</b> 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
<b>Cholesterol</b> 5mg	2%
<b>Sodium</b> 105mg	4%
<b>Total Carbohydrate</b> 12g	4%
Dietary Fiber 0g	0%
Sugars 12g	
<b>Protein</b> 8g	
Vitamin A 10%	Vitamin C 0%
Calcium 30%	Iron 0%
* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
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Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	

**Label B**

<b>Nutrition Facts</b>	
Serving Size 1 cup (244g)	
Servings Per Container	
Amount Per Serving	
<b>Calories</b> 120	Calories from Fat 45
% Daily Value*	
<b>Total Fat</b> 5g	8%
Saturated Fat 3g	15%
Trans Fat 0g	
<b>Cholesterol</b> 20mg	7%
<b>Sodium</b> 100mg	4%
<b>Total Carbohydrate</b> 11g	4%
Dietary Fiber 0g	0%
Sugars 11g	
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Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	

**QUESTION 4 (10 MARKS)**

4.1 Discuss five (5) ways exercise helps in weight management. [5]

4.2 Place the five stages of change in the transtheoretical model of behaviour change in order. [5]

**[50]**

**SECTION B: MEASUREMENT AND EVALUATION (50 MARKS)**

**QUESTION 1 (10 MARKS)**

1.1 Discuss (two) 2 methods of taking a resting heart rate. [4]

1.2 Explain the procedures for skinfold measurement. [6]

**QUESTION 2 (10 MARKS)**

State whether the following is true or false.

2.1. Weight should be measured on a scale to the nearest 0.5kg.

2.2. Height is taken using a long measuring tape from the ground to the top of the head.

2.3. An extremely obese person may contribute to a measurement error while taking skinfolds.

2.4. Acute Myocarditis is an absolute contraindication to exercise testing.

2.5. A BMI value within the range of 18.5-24.9 is considered overweight.

2.6. An example of a muscular endurance test is the 1 repetition maximum.

2.7. Maximal oxygen uptake or VO<sub>2</sub>max is defined as an individual's maximum capacity to consume oxygen and further, to utilise this oxygen at a cellular level.

2.8. Submaximal exercise testing of a moderate risk subject requires supervision by a physician.

2.9. Clothing should not permit freedom of movement during testing.

2.10 Flexibility is the ability to move a joint through its complete Range of motion.

**QUESTION 3 (7 MARKS)**

Complete the table below regarding single joint range of motion movements in degrees.

[7]

<b>Fitness Component</b>	<b>Fitness Test</b>
Speed	
Agility	<b>b.)</b>
Power	<b>c.)</b>
Muscle strength	<b>d.)</b>
Muscle Endurance	<b>e.)</b>
Flexibility	<b>f.)</b>
Anaerobic capacity	<b>g.)</b>

**QUESTION 4 (10 MARKS)**

Describe the procedures for the assessment of resting blood pressure.

[10]

**QUESTION 5 (8 MARKS)**

Name and discuss four (4) important components of the medical history.

[8]

**QUESTION 6 (5 MARKS)**

List five (5) absolute contraindications to exercise testing.

[5]

**[50]**

**TOTAL: 100 MARKS**