

KOLEJ UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF APPLIED SCIENCES

ACADEMIC YEAR 2019/2020

SEPTEMBER EXAMINATION

SPORTS AND EXERCISE SCIENCE BASE1123
FOUNDATION OF FITNESS AND EXERCISE

FRIDAY, 13 SEPTEMBER 2019

TIME: 2.30 PM – 4.30 PM (2 HOURS)

BACHELOR OF SCIENCE (HONOURS) IN SPORTS AND EXERCISE SCIENCE

Instructions to Candidates:

Answer **ALL** questions. All questions carry equal marks.

BASE1123 FOUNDATION OF FITNESS AND EXERCISE**Question 1**

- a) Use a table to compare the **THREE (3)** energy systems used during cardiovascular exercise. (12 marks)
- b) Coaches should know a few methods to obtain heart rate data from their athletes. Identify **THREE (3)** methods to measure heart rate. (3 marks)
- c) Discuss with examples, the **TWO (2)** types of hypertrophy. (10 marks)
- [Total: 25 marks]

Question 2

- a) There are many benefits an athlete can obtain from resistance training. Explain **FIVE (5)** benefits of resistance training. (10 marks)
- b) Not every athlete looks the same. Classify the **THREE (3)** categories of somatotyping. (9 marks)
- c) *Bioelectrical impedance analysis (BIA)* is used often to measure body composition. Explain with examples, the concept behind BIA. (6 marks)
- [Total: 25 marks]

Question 3

- a) Athletes need to possess high efficiency of skill related fitness. Distinguish among the *agility*, *balance*, and *coordination* components of skill related fitness. (9 marks)
- b) Circuit training is widely used in training to promote many health-related benefits. Discuss the **SIX (6)** factors which should be considered in designing a circuit training programme. (12 marks)
- c) List out **FOUR (4)** advantages of using circuit training in your training programme. (4 marks)
- [Total: 25 marks]

BASE1123 FOUNDATION OF FITNESS AND EXERCISE**Question 4**

- a) As a sports scientist, it is important to understand the principles of training. Discuss with examples, **FIVE (5)** key principles of training. (15 marks)
- b) It is important for us to set fitness goals when we want to start planning our training programme. Indicate **FIVE (5)** guidelines needed in writing our fitness goals. (10 marks)
[Total: 25 marks]