

BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF SCIENCE AND ENGINEERING
DEPARTMENT: SPORTS SCIENCE
MASTER OF SCIENCE DEGREE IN SPORTS SCIENCE
SS505 NUTRITION FOR EXERCISE AND HEALTH

DURATION: 3 HOURS

TOTAL MARKS: 100

(Plus 15 Minutes for Practical Preparation/Case Reading)

INSTRUCTIONS TO CANDIDATES

Section A is compulsory.

Answer three questions from Section B.

NOV 2023

Section A

Tanaka is a 32-year-old tennis player. She states that recently her energy levels have dropped and that she has had a hard time recovering from long tennis matches. She also complains of being "hungry all the time." The constant hunger has been frustrating because she is trying to maintain her current weight by attempting to control her total daily intake. She has been "eating well" since finding out 2 years ago that she has high cholesterol. She received counselling from a dietitian at the time of her diagnosis and subsequently made major changes in her diet, such as switching to non-fat foods and eliminating dairy. Her goals are to increase her energy levels, decrease recovery time, and create a meal plan that will also be healthy for her family.

As a nutrition coach, you have been tasked to help Tanaka.

Task:

Design a nutrition plan to help Tanaka.

(40 marks)

Section B

2. You have been tasked to train a group of marathon runners. You realize that they have problems with premature onset of fatigue.

Task: Design nutritional guidelines to effectively train athletes for good performance and good health.

(20 marks)

3. You have been given endurance athletes to assist and you realize that they need a high and low-carbohydrate diet for their performance and health.

Task: What meal plan will you come up with for this group of athletes? (20 marks)

4. You are working with a group of players, and you realize that your athletes have challenges when competing in games that come in succession. You conclude that your players need protein to repair and grow muscle that is broken down during games.

Task: What diet plan would you suggest to ensure that you increase protein intake post-exercise for your group of athletes? (20 marks)

5. Given a group of athletes, you are concerned with their health and fitness. You want to increase their functional ability and come up with a calorie-burning metabolism

Task:

Why is diet important in the health and fitness of an individual especially athletes? (20 marks)

6. Nutrition can play a huge role in the health of young athletes and there is a need to balance energy expenditure with energy intake. As a sports dietician, you are at a training camp with your athletes and you realize that your young athletes skip meals and are weight conscious which may result in nutritional deficiencies.

Task: What programme would you come up with to make sure that you balance high training demands and food intake? (20 marks)

END OF PAPER